

CONFIDENTIAL

Program Review Data Notebook

Joint Doctoral Program in Geography

Between

**The University of California, Santa Barbara and
San Diego State University**

Fall 2012



**SAN DIEGO STATE
UNIVERSITY**

Leadership Starts Here

Program Review
Joint Doctoral Program in Geography
Between the University of California, Santa Barbara and
San Diego State University
Data Notebook
Fall 2012

Please note:

The compact disc located at the back of the paper edition of the Data Notebook contains the contents of this binder as well as the Review Procedures and a section titled Supplementary Materials that was compiled for this review. A list of the supplementary items follows the table of contents below.

The UCSB web page is located at: <http://www.geog.ucsb.edu/>

The SDSU web page is located at: <http://geography.sdsu.edu/>

Except where otherwise noted, the data in the notebook cover academic years 2002-03 – 2010-11. Please contact Maria Mahoney (Maria.Mahoney@bap.ucsb.edu) with questions about the data.

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ADDITIONAL CONTENTS ON COMPACT DISC

► **Supplementary Materials**

<i>San Diego State University</i> Graduate Student Handbook.....	
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<i>University of California, Santa Barbara</i> Graduate Student Handbook.....	
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► **External Review Committee CVs**

► **Review Procedures**

SECTION 1

Charge Letter to the External Review Committee

**Charge Letter to the
External Review
Committee
should be inserted here**

Section 2

Institutional Overviews

San Diego State University

APPLICATIONS & NEW ENROLLEE PROFILE		ENROLLMENT BY COLLEGE	UG	Grad	Total	
First-time Freshmen			Arts & Letters	3,944	664	4,608
Applied: 44,848	Avg. H.S. GPA 3.62		Business	3,960	609	4,569
Admitted: 13,450	Average SAT 1084		Education	356	695	1,051
Enrolled: 3,339	Average ACT 23.6		Engineering	2,012	338	2,350
New Undergraduate Transfers			Health & Human Services	2,084	857	2,941
Applied: 17,050	Average Transfer GPA 3.18		Professional Studies & Fine Arts	6,108	476	6,584
Admitted: 3,222			Sciences	3,876	941	4,817
Enrolled: 2,348			Undergraduate Studies	1,561	0	1,561
			Graduate Division	0	706	706
		Imperial Valley Campus	719	153	872	
		Total*	24,590	5,426	30,016	

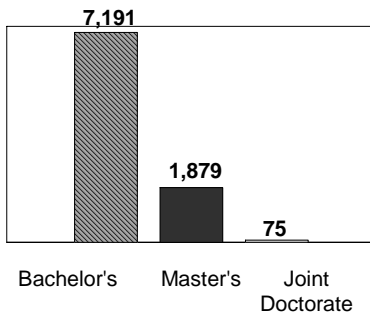
* 43 students were concurrently enrolled at SD and IVC.

San Diego & Imperial Valley Campuses SDSU STUDENTS

PROGRAMS OFFERED

- 84 Bachelor's degrees
- 76 Master's degrees
- 16 Joint Doctoral
- 2 Independent Doctoral

DEGREES AWARDED 2009 - 2010



ETHNICITY

	UG	Graduate
American Indian	0.4%	0.5%
African American	4.2%	2.9%
Mexican American	22.0%	14.0%
Other Hispanic	5.0%	3.8%
Asian	4.2%	4.9%
SE Asian	2.8%	1.3%
Pacific Islander	0.7%	0.2%
Filipino	7.3%	2.7%
Multiple Ethnicities	2.5%	2.5%
White	39.5%	43.3%
Other/Not Stated	7.6%	12.0%
International	3.7%	11.8%

GENDER

Men	42.2%
Women	57.8%

AVERAGE AGE

First-time Freshmen	18.5
Undergraduate	22.5
Graduate	30.1

AVERAGE UNITS

First-time Freshmen	14.2
Undergraduate	13.5
Graduate	9.4

DID YOU KNOW?

Founded in 1897, SDSU is the oldest and largest institution in San Diego.

SDSU is accredited by WASC and classified as Doctoral/Research Intensive by Carnegie

The first transnational triple degree among US, Canada & Mexico was offered at SDSU.

Fall 2010

SDSU FACULTY

Total Faculty

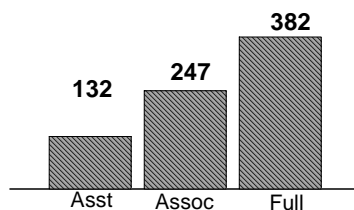
Tenured/
Tenure-Track
761

Lecturer
706

Data Source:
Faculty Affairs, 11/2010

Faculty Demographics

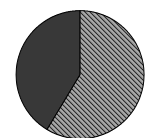
FACULTY RANK *Tenure-Track Faculty*



ETHNICITY

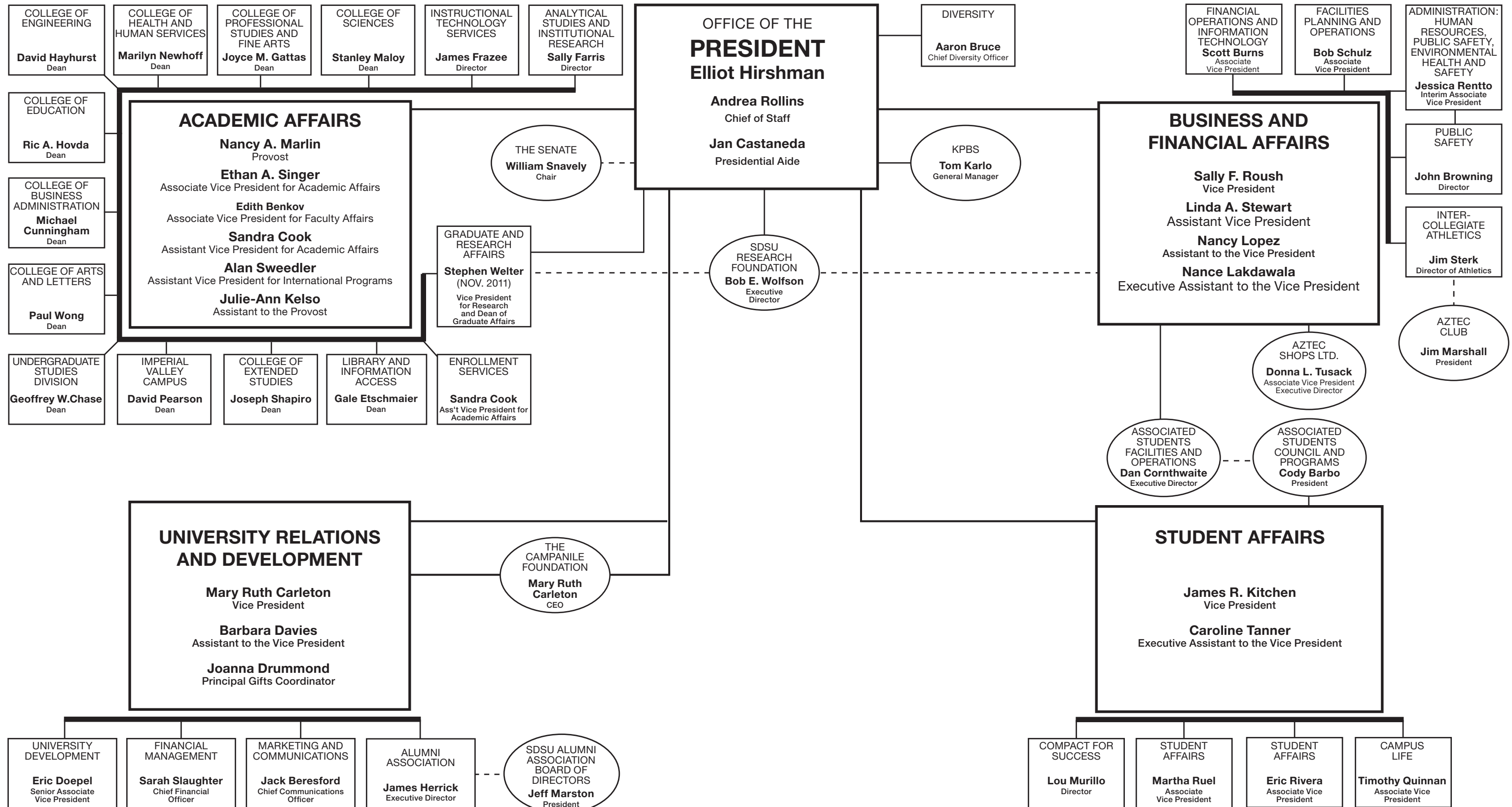
	All	T/TT	Lect	New Hires
American Indian	8	4	4	0
African American	44	24	20	0
Hispanic	144	64	80	0
Asian	136	95	41	2
White	1,104	561	543	3
Not Stated	31	13	18	1
Total	1,467	761	706	6

GENDER

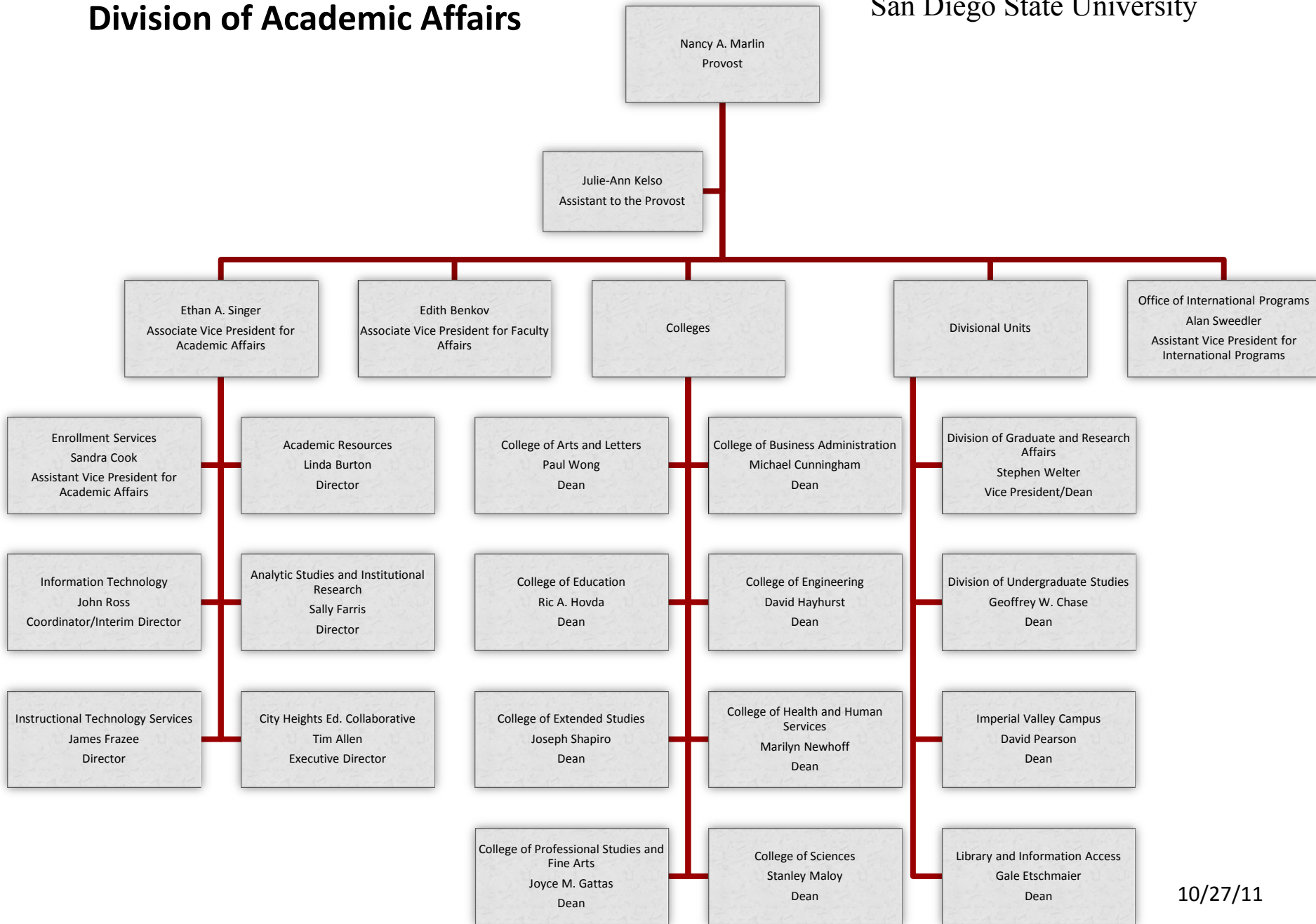


Men 58.7%
Women 41.3%

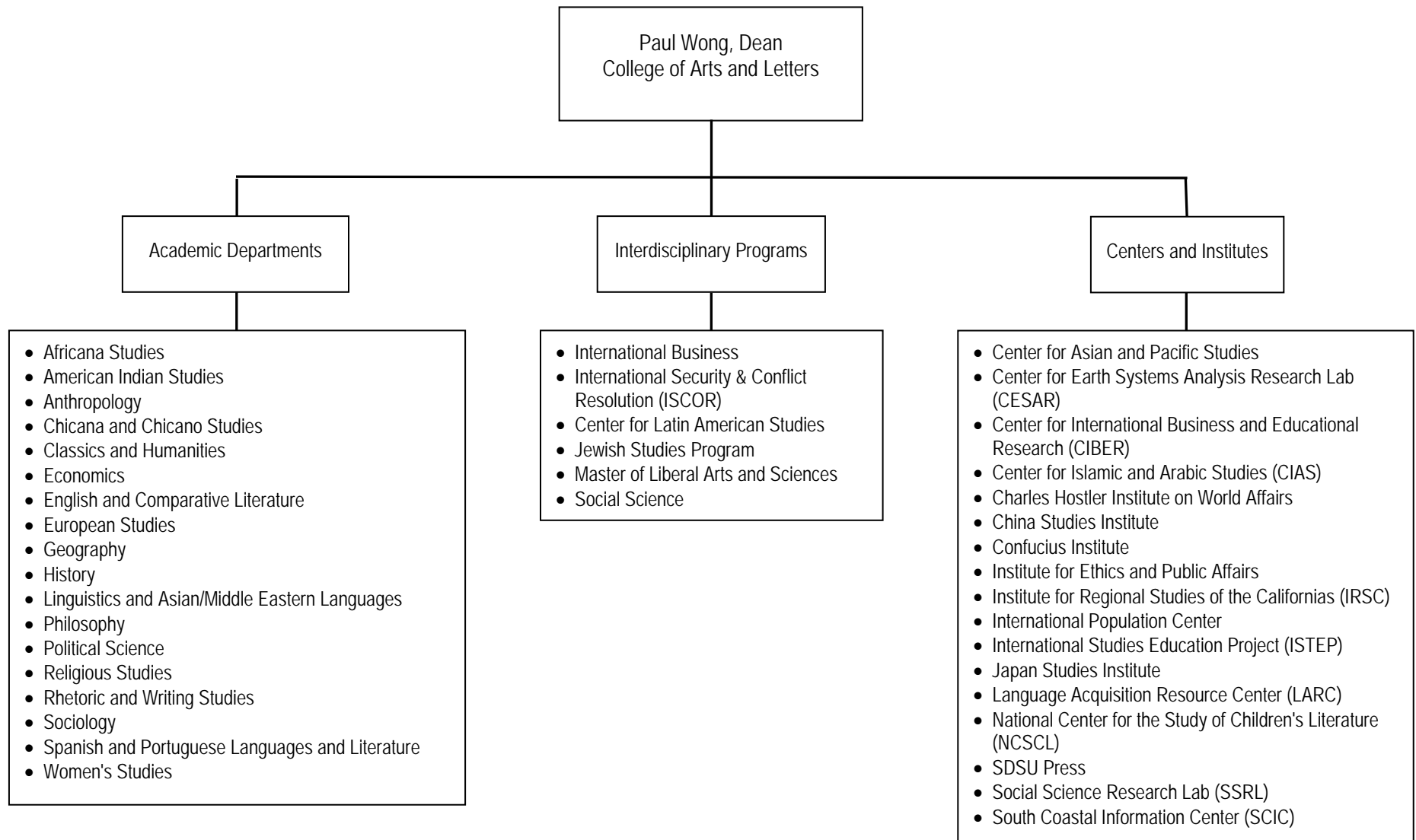
Note: Faculty categories have been updated to reflect SDSU's common usage and now include all tenure-track faculty with instructional roles including FERPs and department chairs.



Division of Academic Affairs



San Diego State University



University of California,
Santa Barbara

UCSB AT A GLANCE

OFFICERS

Chancellor

Henry T. Yang

Executive Vice Chancellor

Gene Lucas

Vice Chancellor for Administrative Services

Vacant

Vice Chancellor for Institutional Advancement

Vacant

Vice Chancellor for Research

Michael Witherell

Vice Chancellor for Student Affairs

Michael D. Young

Assistant Chancellor for Budget and Planning

Todd G. Lee

HISTORY

Santa Barbara State Normal School of Manual Arts and

Home Economics became a National Center for

Ecological Analysis and Synthesis (NSF)

state institution in 1909. In 1919, name changed to Santa

Barbara Normal School and in 1921, to Santa Barbara State

Teachers College. In 1935, the school became Santa

Barbara State College.

Campus of the University of California since 1944

UCSB moved from the Riviera and Mesa campuses to

Goleta Point, 1954

Member, Association of American Universities since 1995

SCHOOLS AND COLLEGES

Enrollment (Fall 2010)

College of Creative Studies – 359

College of Engineering – 1,808

College of Letters and Science – 19,419

Donald Bren School of Environmental Science and

Management – 220

Gevirtz Graduate School of Education – 414

STUDENTS (Fall 2010)

Total student body: 22,218

Undergraduates: 19,186

Graduate students: 3,032

FACULTY (Fall 2010)

Tenured/tenure-track faculty: 886

Non-tenure-track faculty: 166

DEGREES AWARDED

ACADEMIC YEAR 2009–2010

Baccalaureate: 5,633 (number of degrees earned)

Credential: 119

Master's: 591

Doctoral: 299

DEGREE PROGRAMS

Baccalaureate: 92

Master's: 54

Doctoral: 45

SPONSORED RESEARCH

FY 2011: \$184 Million

PRIVATE GIVING 2010-11: \$34.8 Million

NATIONAL RESEARCH INSTITUTES AND CENTERS

Center for Energy Efficient Materials

Center for Nanotechnology for Treatment, Understanding,
and Monitoring of Cancer (NIH via UCSD)

Center for Nanotechnology in Society (NSF)

Institute for Collaborative Biotechnologies (Army)

International Center for Materials Research (NSF)

Kavli Institute for Theoretical Physics (NSF)

Materials Research Laboratory (NSF)

Nanotech, a part of National Nanotechnology

Infrastructure Network (NSF)

National Center for Ecological Analysis & Synthesis (NSF)

Pacific-Southwest Regional Center of Excellence (RCE) for

Biodefense and Emerging Infectious Disease Research

(NIH via UCI)

Southern California Earthquake Center, branch (NSF

University of Southern California)

UC Center for Environmental Implications of

Nanotechnology (NSF)

CALIFORNIA RESEARCH CENTERS

California NanoSystems Institute • Center for

Nanoscience Innovation for Defense • Center for

Polymers and Organic Solids • Center for Spintronics and

Quantum Computation • Western Institute of

Nanotechnology (via UCLA)

MULTICAMPUS UNITS

African Studies (UCMRG)

Intercampus Research Program on Mexican Literary and

Cultural Studies (UC Mexicanistas)

Italian Studies

Japanese Arts & Globalization

New Racial studies

Ocean Acidification

Subaltern-Popular Workshop (UC MRG)

Transliterations Project: Research in the Technological,

Social, and Cultural Practices of Online Reading (UC
MRG)

UC Educational Evaluation Center

UC Institute for Research in the Arts (MRU)

UCSB Natural Reserve System

Carpinteria Salt Marsh Reserve • Coal Oil Point

Reserve • Kenneth S. Norris Rancho Marino Reserve

• Santa Cruz Island Reserve • Sedgwick Reserve •

Valentine Eastern Sierra Reserve (Sierra Nevada

Aquatic Research Laboratory and Valentine Camp)

ORGANIZED RESEARCH UNITS

Chicano Studies Institute
Center for Research in Latina/o Health
Earth Research Institute
Southern California Earthquake Center (see National Centers)
Institute for Terahertz Science and Technology
Center for Complex and Nonlinear Science
Institute for Social, Behavioral, and Economic Research (ISBER)
East Asia Center • Center for Evolutionary Psychology • Health Data Research Facility-HDRF • Center for Information Technology and Society • Center for Middle East Studies • MesoAmerican Research Center • Michael D. Palm Center • Center for Middle East Studies • Center for Nanotechnology in Society • Center for New Racial Studies • Center on Police Practices and Community • Social Science Survey Center • Center for Spatially Integrated Social Sciences
Marine Science Institute
Coastal Research Center • Ecoinformatics Center • Marine Biotechnology Center • National Center for Ecological Analysis and Synthesis • Ocean and Coastal Policy Center • UCSB Natural Reserve System
Neuroscience Research Institute
Alzheimer's Disease Research Center • Center for Stem Cell Biology and Engineering • Center for the Study of Neurodegenerative Disorders • Center for the Study of Macular Degeneration

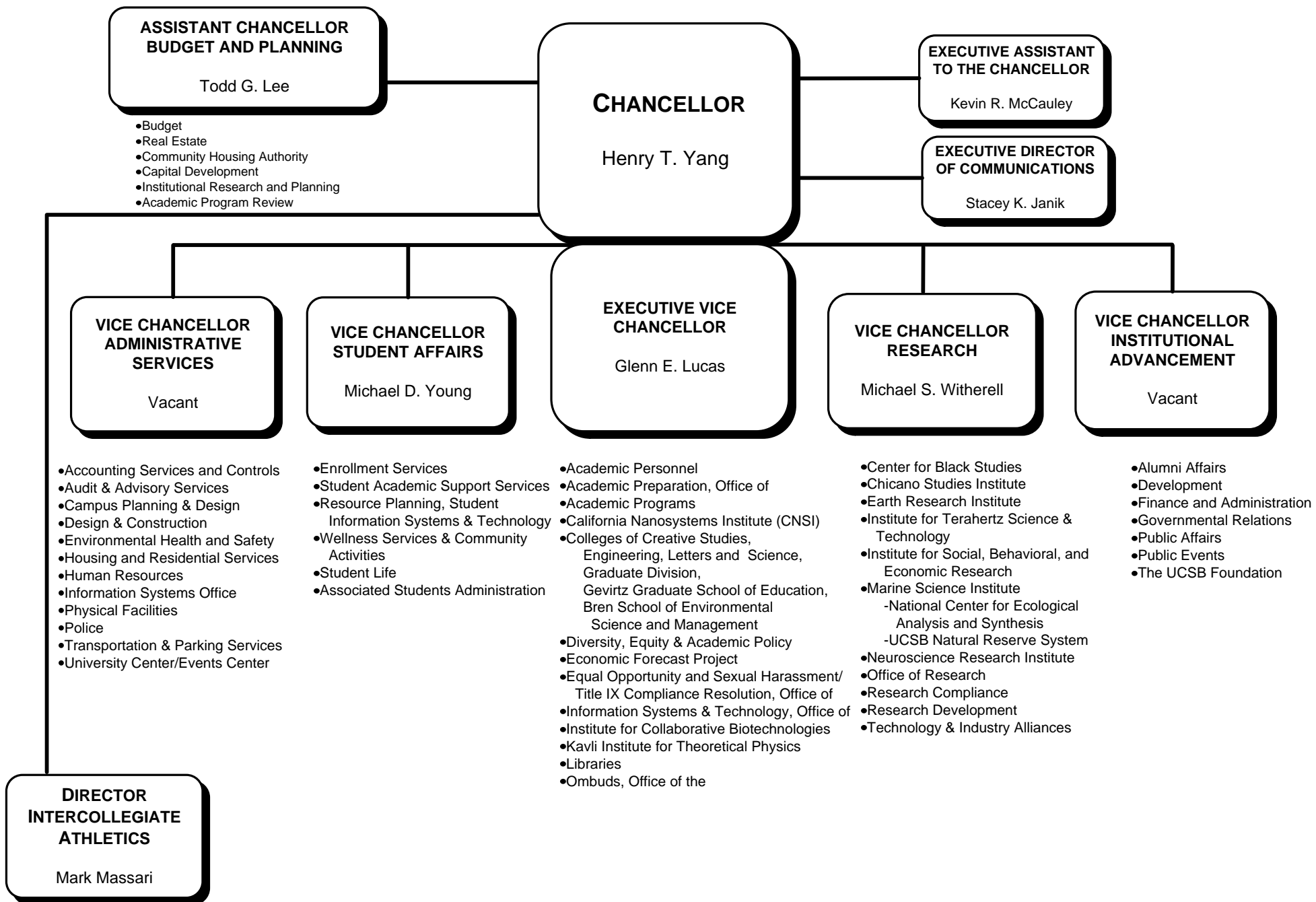
OTHER RESEARCH CENTERS

American Cultures and Global Contexts
Brain Imaging Center
Carsey-Wolf Center for Film, Television, and the New Media
Center for Advanced Nitride Electronics
Center for Bio-Image Informatics
Center for Black Studies Research
Center for Collaborative Engineering Research and Education
Center for Cold War Studies
Center for Control, Dynamical Systems, and Computation
Center for Creativity and Innovation
Center for Education Research on Literacy and Inquiry in Networking Communities
Center for Educational Change in Mathematics and Science
Center for Energy Efficient Materials
Center for Equity in Mathematics and Science Education
Center for the Interdisciplinary Study of Music
Center for Multifunctional Materials and Structures
Center for Polymers and Organic Solids
Center for Portuguese Studies
Center for Research in Electronic Art Technology

Center for Research in Financial Mathematics and Statistics
Center for Research on Women and Social Justice
Center for Risk Studies and Safety
Center for School-Based Youth Development
Center for the Study of the Biochemistry and Molecular Biology of Aging
Center for Taiwan Studies
Consortium for Literature, Theory, and Culture
Early Modern Center
Gevirtz Research Center
Information Sensing, Processing, and Networking Research Group
Institute for Energy Efficiency
Institute for Multiscale Materials Studies
Interdisciplinary Center for Wide Band-Gap Semiconductors
Interdisciplinary Humanities Center
Center for the Study of Work, Labor, and Democracy • Center for Taiwan Studies
International Center for Materials Research
Koegel Autism Research Center
Laboratory for Aggregate Economics and Finance
Mitsubishi Chemical Center for Advanced Materials
National Center for Geographic Information and Analysis
Ocean Physics Laboratory
Optoelectronics Technology Center
Orfalea Center for Global and International Studies
Research Center for Virtual Environments and Behavior
Research Unit on Spatial Cognition and Choice
SAGE Center for the Study of the Mind
Solid State Lighting and Display Center
Solid State Lighting and Energy Center
Transcriptions Project: The Cultures of Information
Vernon and Mary Cheadle Center for Biodiversity and Ecological Restoration
Walter H. Capps Center for the Study of Ethics, Religion, and Public Life

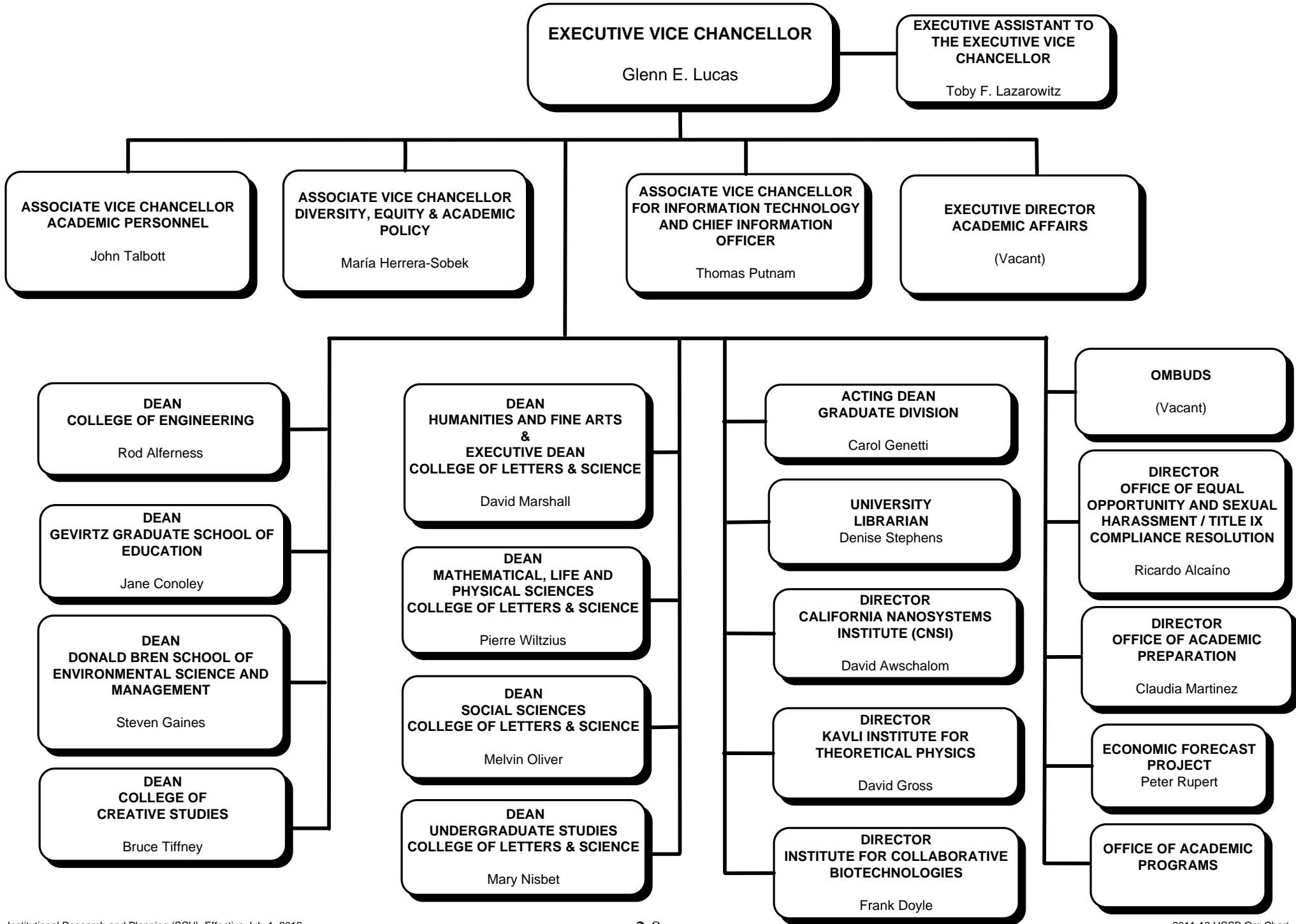
For additional information, visit the UCSB home page at www.ucsb.edu

University of California, Santa Barbara CHANCELLOR

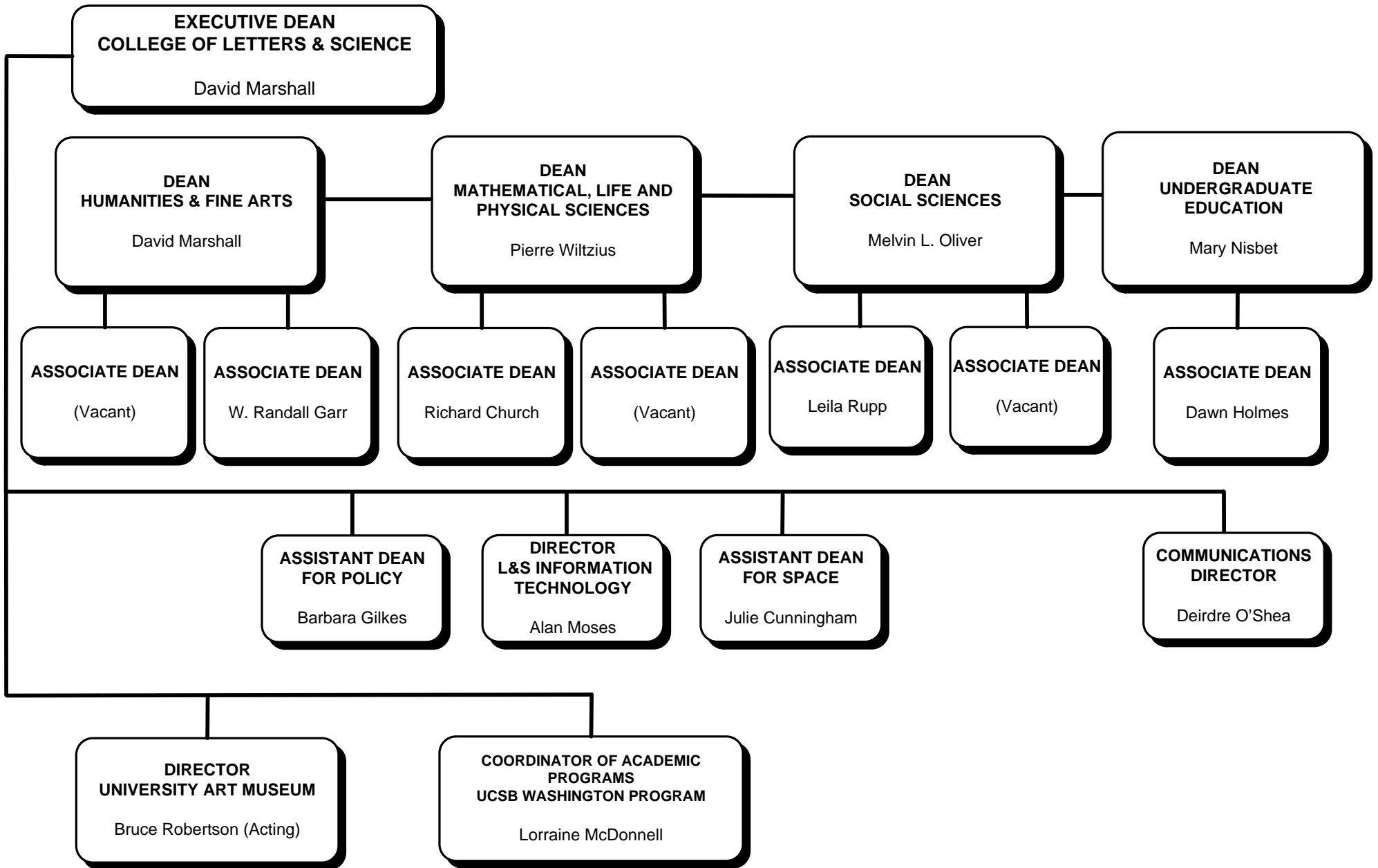


University of California, Santa Barbara

EXECUTIVE VICE CHANCELLOR



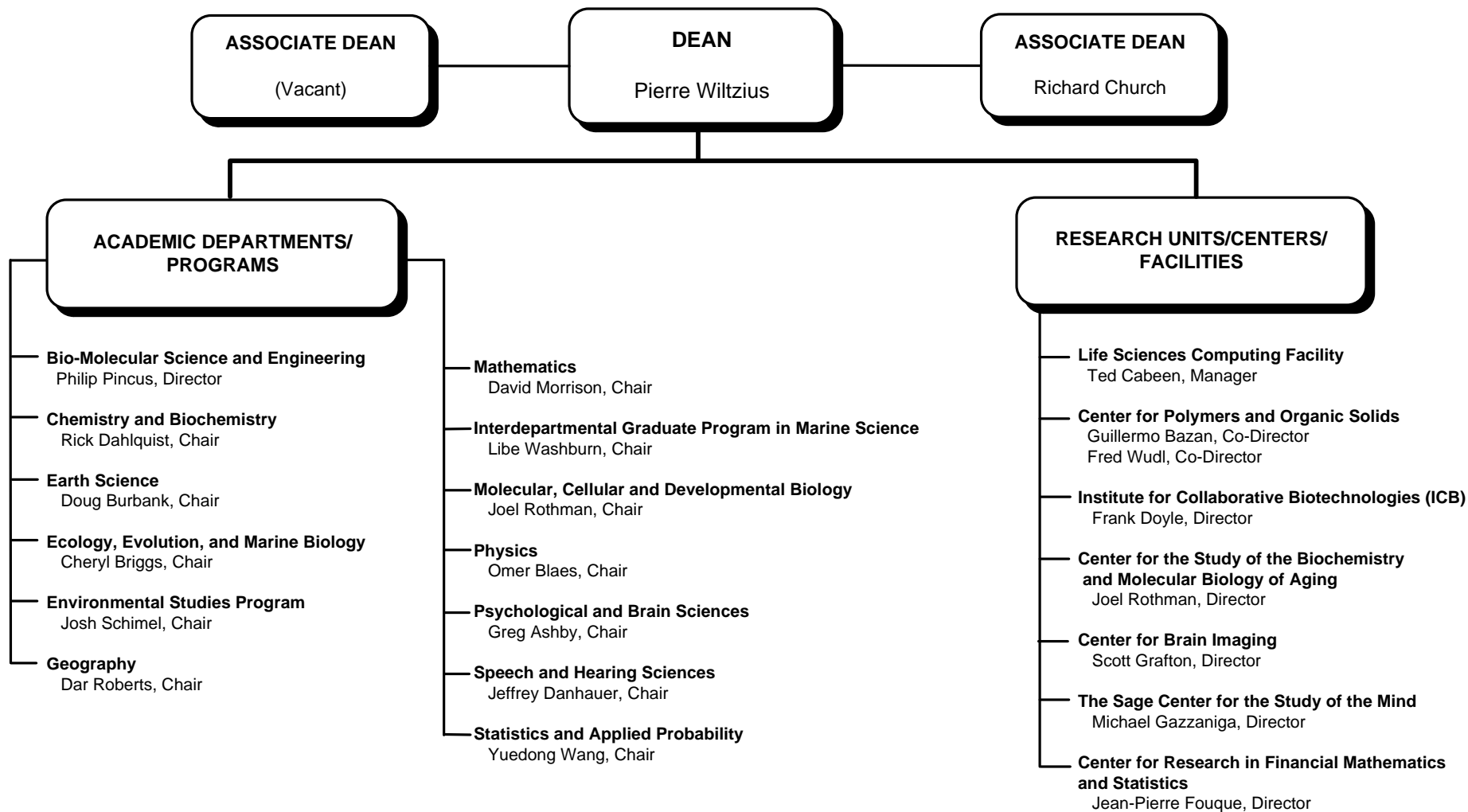
University of California, Santa Barbara COLLEGE OF LETTERS AND SCIENCE



University of California, Santa Barbara

COLLEGE OF LETTERS AND SCIENCE

DIVISION OF MATHEMATICAL, LIFE, AND PHYSICAL SCIENCES



Section 3

Instructional Program

Geography Joint Doctoral Program Requirements

Residency Requirements. After formal admission to the joint doctoral program, the student must spend at least one academic year in full-time residence on each of the two campuses. The definition of residence must be in accord with the regulations of UCSB and SDSU. Usually, the first year is spent at SDSU, the second at UCSB, and subsequent years at SDSU.

Advising Committee. Upon admission to the program, the joint doctoral graduate advisers of the two institutions will establish an advising committee for each student. The committee will consist of four faculty members, normally two from each campus. In consultation with the student, the committee will develop a course of study, including identifying academic deficiencies and recommending remedies for them. The advising committee will be the official advising group for the student until a joint doctoral committee has been chosen and recommended to the Divisions of Graduate Affairs by the advising committee.

Language Requirement. There is no specific foreign language requirement for this program, but knowledge of a foreign language may be deemed necessary by the advising committee to successfully pursue the student's research goal.

Course Requirements. Students admitted into the joint doctoral program are expected to take common core courses which include: Geography 700 (Seminar in Geographic Research Design) and Geography 701 (Seminar in Development of Geographic Thought) at SDSU and Geography 201 each quarter at UCSB. No specified number of courses beyond core courses is required for the doctoral degree. However, students are expected to have a broad understanding of modern geographic principles in addition to a specialist's competence in their own sub-field. In addition, all doctoral students must have computation skills and knowledge of spatial analysis.

Qualifying Examinations

Joint Doctoral Committee. When a doctoral student makes a definitive selection of the systematic area and technique emphasis as well as the general topic of their dissertation research, she/he will select a dissertation supervisor (major professor), who can be from either department but who normally will be a member of the SDSU faculty, and the members of his/her joint doctoral committee. The joint doctoral committee shall be composed of at least four members (with the rank of Assistant Professor or above), two from the SDSU department and two from the UCSB department. The committee may be augmented as needed by an additional member from outside geography at UCSB or a member of the faculty at SDSU from outside of geography or, when authorized, another university. Chaired by the student's major professor, the joint doctoral committee shall be responsible for evaluating the dissertation proposal, administering and evaluating the qualifying examination, judging the dissertation, and administering and evaluating the dissertation defense.

Qualifying Examinations. The process of qualifying to write a Ph.D. dissertation has three steps. First, the student must take a written qualifying examination that normally consists of three portions devoted to: 1) the student's substantive area, 2) her or his technical or methodological field(s) of interest, and 3) general geographic thought and inquiry. Second, the student prepares a dissertation proposal that describes the dissertation topic, summarizes the relevant background literature, and presents a comprehensive research plan for the dissertation. Third, the student's doctoral committee will conduct an oral qualifying examination to ensure that the student possesses the full knowledge and competence required to carry out her or his dissertation research. The doctoral committee will assign a pass or fail grade for each examination. Passing the written examination allows the student to proceed to the preparation of the dissertation proposal. The doctoral committee must conditionally approve the dissertation proposal before the student takes the oral qualifying examination. Passing the oral examination signifies that the doctoral dissertation proposal is approved. A student may repeat each examination once.

Upon satisfactory completion of the oral examination and prescribed coursework, the student must apply to the graduate dean at UCSB for advancement to candidacy. Upon payment of the candidacy fee to UCSB, and after approval by the graduate deans of both campuses, students will be notified of their advancement to candidacy by the UCSB graduate dean.

Dissertation. Following the successful completion of all prescribed coursework and qualifying examinations, the major remaining requirement for the Ph.D. degree will be the satisfactory completion of a dissertation consisting of original research of publishable quality carried out under the guidance of the major professor. Approval of the completed dissertation by the joint doctoral committee implies that an organized investigation yielding substantial conclusions of interest which expand the frontiers of knowledge and understanding in the discipline has been carried out. Results must be reported in a manner demonstrating the ability of the candidate to effectively prosecute and report independent investigation.

The requirement for completing and filing the dissertation, including the number of copies required, will be decided jointly by the graduate deans and in accordance with regulations of the Divisions of Graduate Affairs.

Final Examination. The final examination, organized and administered by the joint doctoral committee, shall consist of a dissertation defense, before the joint doctoral committee. A public lecture will be presented in addition to this defense with the committee.

Award of the Degree. The Doctor of Philosophy degree in geography will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both institutions.

Required Courses.

SDSU

GEOG 700. Seminar in Geographic Research Design (3 units)

Prerequisite: Graduate standing.

Definition of spatial problems, hypothesis formulation and testing, selection of appropriate methodology. Development of research proposals, conduct of research, written and oral presentations.

GEOG 701. Seminar in Development of Geographic Thought (3 units)

Prerequisite: Graduate standing.

Evolution of concepts concerning the nature, scope, theories, and methodologies of geography.

UCSB

GEOG 201. Seminar in Geography (2 units)

Required of all geography graduate students every quarter offered.

A series of seminars on diverse problems in human and physical geography, and geographic techniques, by current and visiting faculty and researchers.

Department of Geography

Programs : Doctoral

SDSU Geography Doctoral Program is ranked No. 7 in the United States.

The Departments of Geography at San Diego State University and the University of California, Santa Barbara have joined resources to offer a distinctive doctoral program. It brings together two outstanding institutions. The joint program complements but does not duplicate the existing Ph.D. program at UCSB, which functions separately from the joint doctoral program. The joint doctoral program provides the essential education, technical training and creative experience necessary for professional activity including college-level teaching.

Graduate study at San Diego State University has long been characterized by a close, collegial working relationship between students and faculty. Exceptional technical facilities are available on both campuses. Students spend a minimum of one year on each campus and will normally start and finish their work at SDSU. The joint doctorate is unique and as such presents many advantages for the student. Because it entails two departments, students entering the program have access to a much larger and more diverse set of faculty than in perhaps any other program. This gives students an opportunity to be exposed to more perspectives and approaches to geography than in most settings. Also, residency on both campuses allows students to experience two different university systems, the California State University and the University of California, with different organizational structures and missions. Students also become familiar with two attractive but very different communities and environments.

We recognize that the joint character of our program creates some logistical readjustments and inconveniences. Therefore, students entering the program should be highly motivated individuals who seek the special combination of opportunities available through it.

Information

Doctoral Student Handbook

For information regarding student life at SDSU and San Diego in general, please see the Student Page.

Graduate Access Page

We invite prospective graduate students to visit the Graduate Access Page, or MyGAP. Using MyGAP you can build a customized web page containing personalized information about SDSU graduate programs of specific interest.

Completed Dissertations

Current Positions of Joint Doctoral Graduates

UC Santa Barbara Department of Geography

[about](#) [academics](#) [people](#) [computing](#) [services](#) [earth gate](#) [news & events](#) [giving to geog](#) [search](#)



UC Santa Barbara Geography / Graduates / Affiliated PhD Programs

Graduates

[The UCSB Interdepartmental Graduate Program in Marine Science](#)

Program Description

[The UCSB-SDSU Joint PhD Program](#)

Affiliated PhD Programs

The Interdepartmental Graduate Program in Marine Science

Student Handbook

The [UCSB Interdepartmental Graduate Program in Marine Science](#) offers two graduate degrees: The Master of Science and the Doctor of Philosophy in Marine Science. The Masters program is very small and by thesis only. Most students enter the PhD program without a Masters degree.

Master's Theses

Ph.D. Dissertations

FAQs

Advising

Awards & Financial Aid

Faculty in 8 Departments across the UCSB campus participate in the Marine Graduate Program. Professional Researchers and Postdoctoral Scholars associated with 3 Research Institutes, the Marine Science Institute, the Institute for Computational Earth Systems Science, and the Institute for Crustal Studies also provide a wealth of contacts, expertise, and opportunities for graduate students in the Marine Sciences.

Participating Departments:

[Anthropology](#)
[Chemical Engineering](#)
[Chemistry & Biochemistry](#)
[Donald Bren School of Environmental Science and Management](#)
[Earth Science](#)
[Ecology, Evolution and Marine Biology](#)
[Geography](#)
[Mechanical & Environmental Engineering](#)
[Molecular, Cellular, and Developmental Biology](#)

Participating Research Programs:

[Institute for Computational Earth Systems Science](#)
[Institute for Crustal Studies](#)
[Marine Science Institute](#)

The UCSB-SDSU Joint PhD Program

The UCSB Department of Geography's joint PhD program with the [Department of Geography at San Diego State University](#) is distinctive in that it brings together two outstanding departments that complement each other. California State Universities do not offer stand-alone doctoral programs. The joint doctorate program thereby provides mutual benefits for two of the strongest research-oriented Geography departments in the US, insofar as it increases SDSU's attractiveness to students by permitting them to pursue a doctorate, and, in turn, allows UCSB to increase its exposure to a more diverse set of students. SDSU students spend a minimum of one year on each campus and normally start and finish their work at SDSU. Joint Doctoral Committees consist of a minimum of 2 UC tenure-track faculty in the student's major from UCSB and 2 tenure-track faculty

in the student's major from the partner institution. Applicants should contact Dr. Douglas Stow, the joint doctoral program adviser at SDSU (stow@mail.sdsu.edu).

Stuart Phinn received the first PhD as a result of the Joint Program in 1997 with a dissertation titled "Remote Sensing and Spatial Analytic Techniques for Monitoring Landscape Structure in Disturbed and Restored Coastal Environments." Twenty-seven other PhDs have been granted since then, and SDSU's Geography Joint Doctoral Program is currently ranked number 7 in the United States, according to the "The Chronicle of Higher Education" (which ranked UCSB number 2, behind UCLA).

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ADA accessibility reviewed May 2008. If any of this material is not accessible to you, please contact our department at (805)893-3663 or contact d@geog.ucsb.edu and we will provide alternatives.

Section 4

Faculty

San Diego State University Faculty Information

**San Diego State University
Department of Geography Faculty**

Edward Aguado

Ph.D., Wisconsin (1983), Professor
Climatology, Meteorology, Hydrology, Physical Geography
(*Not teaching graduates*)

Stuart C. Aitken

Ph.D., Western Ontario (1985), Professor
Critical Geography, Qualitative Methods, Children, Families and Communities, Film
Department Chair

Li An

Ph.D., Michigan State University (2003), Associate Professor
Landscape Ecology, Quantitative Methods, Populations

Trent Biggs

Ph.D., UC Santa Barbara (2003), Associate Professor
Watershed Science, Water Resources and Quality Monitoring

Fernando Bosco

Ph.D., The Ohio State University (2002), Associate Professor
Urban Geography, Social Movements and Collective Action, Social and Cultural Theory,
Economic Geography, Latin America
Co-chair and undergraduate advisor, Urban Studies Program

George Christakos

Ph.D., Harvard University (1990), Professor
Spatiotemporal Stochastic Modeling, Knowledge Synthesis, Interdisciplinary Systems,
TGIS, Geostatistics, Environmental Health and Medical Geography
Birch Foundation Endowed Chair in Geographic Studies

Anne-Marie Debbané

Ph.D., York University, Canada (2010), Assistant Professor
Political Ecology, Urban nature and social justice

Kathleen Farley

Ph.D., Univ. of Colorado, Boulder (2002), Assistant Professor
Global Environmental Change, Ecosystem and Watershed Ecology, Environmental Policy,
Natural Resource Management and Conservation

Allen S. Hope

Ph.D., Maryland (1986), Professor
Hydrology, Remote Sensing, Climatology, GIS, Spatial Modeling
Masters Program Advisor

Piotr Jankowski

Ph.D., Washington (1989), Professor
Spatial Decision Support Systems, Participatory GIS, Geocomputation Methods,
Volunteered Geographic Information

Coordinator, GIScience Certificate Program

Pascale Joassart

Ph.D., Univ. of Southern California (1999), Associate Professor
Urban and economic geography: Migration, gender and informal work; Poverty;
Nonprofits and state restructuring; Public space and healthy cities; Food

Co-chair, Urban Studies Program

Arielle Levine

Ph.D., UC Berkley (2006), Assistant Professor
Social science in marine and coastal environments

John F. O'Leary

Ph.D., UCLA (1984), Professor
Biogeography, Physical Environmental Studies, Field Measurements and Quantitative
Analysis

André Skupin

Ph.D., SUNY Buffalo (1998), Associate Professor
Cartography, GIS, Information Visualization, Visual Data Mining

Douglas A. Stow

Ph.D., UC Santa Barbara (1985), Professor
Remote sensing and image processing, land-cover/land-use change, Arctic tundra,
Mediterranean and urban ecosystems

Doctoral Advisor

Kate Swanson

Ph.D., University of Toronto, Canada (2005), Assistant Professor
Urban Geography, Development, Gender, Race and Ethnicity, Childhood

Ming-Hsiang Tsou

Ph.D., University of Colorado (2001), Professor
Internet Mapping/Cartography, Web-based GIS

John R. Weeks

Ph.D., UC Berkeley (1972), Professor
Demography, Environment

FACULTY SERVICE ON DOCTORAL COMMITTEES*: SDSU FACULTY 2002-03 through 2010-11		
Faculty Member	Number of Committees Chaired	Number of Committees Served On
Aitken	9 (3 Co-chaired)	1
An	3 (1 Co-chaired)	4
Biggs	1	2
Bosco	4 (2 Co-chaired)	2
Farley	1	2
Ford	3 (1 Co-chaired)	1
Franklin	3	1
Fredrich	0	1
Getis	2	4
Griffin	1 (Co-chaired)	0
Hope	4	1
Jankowski	6	1
Joassart-Marcelli	0	2
Mattingly	0	1
O'Leary	0	1
Pohl	0	1
Rey	3	2
Skupin	1	3
Stow	5	8
Swanson	3 (2 Co-chaired)	2
Tague	2	2
Tsou	2	3
Weeks	7 (1 Co-chaired)	2

* Committee membership for students who participated in the joint doctoral program between Fall 2002 and Spring 2011. Does not include students who withdrew or were terminated from the program.

CURRICULUM VITAE

Name: Stuart C. Aitken

Rank: Professor

Education:

PhD, Geography 1985 The University of Western Ontario, Canada
MA, Geography, 1981 Miami University, USA
BSc (Honors) Geography 1980 University of Glasgow, Scotland

Academic Appointments:

2007- 2012, Honorary Professor, University of Wales, Aberystwth,
2003 - 2009 Professor II, NTNU, Norway, Geography
2003 - 2009 Professor II, NTNU, Norway, National Center for Child Research,
1996 – present, Associate Graduate Faculty member, Child and Family Development, SDSU
1994 – present, SDSU, Associate Graduate Faculty member, Women’s Studies SDSU
1993 - present, Full Professor, Geography, SDSU
1990 - 1993, Associate Professor, Geography, SDSU
1986 - 1990, Assistant Professor, Geography, SDSU
1985-1986, Lecturer, University of Arizona

Selective Honors and Awards:

2009 Distinguished Service Award, Association of Pacific Coast Geographers
Inaugural Distinguished Lecturer in Human Geography, Simon Fraser University, 2010

Selected Keynote Addresses:

‘Father Down the Road,’ **Keynote address** at the Centenary of the Department of Geography, Glasgow University, August 21, 2009.
‘The Unappealed Craving: An Emotional Mapping of Western Cinematic Landscapes.’ **Keynote Address** at *Flickering Landscapes: Cinematic Representations of the West*. Conference. Moab, Utah, May 2007.
‘Global Childhoods’ **The John Wiley Keynote Address**, Annual Meetings of the Canadian Association of Geographers, London, Ontario, June 2005

Selective Professional Activities:

Commissioning Editor for North America, *Children’s Geographies: Advancing interdisciplinary studies of younger people’s lives*. A Routledge Journal, Feb 2001 – present.
Editorial Advisory Board, Global Youth Book Series, Temple University Press, March 2010 - present
Pearson Education Faculty Advisory Board, March 2010 – January 2011
Editorial Board, *Norsk Geografisk Tidsskrift/Norwegian Journal of Geography*, May 2007 – present.
Editorial Board, *Aether: The Journal of Media Geography*, May 2007 - present
Director and co-founder, SDSU’s Center for Interdisciplinary Studies of Youth and Space (ISYS), Sept 2006 – present.
Editorial Board, the *Annals of the Association of American Geographers*, May 2006 – January 2010.
Past-President, Association of Pacific Coast Geographers, Sept 2009-Sept 2010
President, Association of Pacific Coast Geographers, Sept 2008-Sept 2009.
Vice-President, Association of Pacific Coast Geographers, Sept 2007-Sept 2008.
Pacific Coast Regional Councilor to the Association of American Geographers, July 1 2004 – June 30 2007

Selective Campus Governance:

Dept. Chair Geography, SDSU (Aug 2008 – present)
Board Member SDSU Press (June 2000 – present)
Member Student Grievance Committee, SDSU (September 2003 – June 2007)
Senator Elected member to the University Senate, SDSU (June 2000- June 2006)
Member Graduate Council, SDSU (June 2000- June 2003)
Member Graduate Curriculum Committee, SDSU (June 2000- June 2003)

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications: In this section:

1) List the **total number of scholarly publications**

- 10 books
- 66 chapters in refereed scholarly books
- 4 edited theme issues in refereed journals
- 51 articles in referred journals
- 6 papers in refereed proceedings
- 34 book reviews and review essays in scholarly publications
- 11 technical documents and professional reports

2) Provide a list of the **five most significant articles or books**

- Aitken, Stuart C. (2009). *The Awkward Spaces of Fathering*. Aldershot: Ashgate Press.
- Aitken, Stuart C. (2001). *Geographies of Young People: The Morally Contested Spaces of Identity*. London and New York: Routledge.
- Aitken, Stuart C. (1998) *Family Fantasies and Community Space*. New Brunswick, New Jersey: Rutgers University Press.
- Aitken, Stuart C. (2006). Leading Men to Violence and Creating Spaces for their Emotions. *Gender, Place and Culture*. 13 (5), 491-507.
- Aitken, Stuart C. (1991) A Transactional Geography of the Image-Event. *Transactions, Institute of British Geographers*. New Series. Vol. 16 (1), 105-118.

3) **SELECTED scholarly publications appearing within the past eight years, 2002-03 through the present.**

- Craine, James W., Giorgio Hadi Curti and Stuart C. Aitken (2011) *The Fight to Stay Put: Social Lessons through Media Imaginings of Urban Transformation and Change*. Stuttgart: Franz Steiner Verlag Press. In Press.
- Aitken, Stuart C., Kate Swanson, Fernando Bosco and Tom Herman (2011) *Young People, Border Spaces and Revolutionary Imaginations*. New York and London: Routledge.
- DeLyser, Dydia, Steve Herbert, Stuart Aitken, Mike Crang and Linda McDowell (2010) *Qualitative Geography*. London, Thousand Oaks & New Delhi: Sage Publications.
- Aitken, Stuart C. (2009). *The Awkward Spaces of Fathering*. Aldershot: Ashgate Press.
- Aitken, Stuart C., Ragnhild Lund and Anne Trine Kjørholt (2008). *Global Childhoods: Globalization, Development and Young People*. London and New York: Routledge.
- Aitken, Stuart C. and Gill Valentine (editors) (2006). *Approaches to Human Geography: Philosophies, People and Practices*. London, Thousand Oaks & New Delhi: Sage Publications.
- Aitken, Stuart C. (2012). The Most Violent Vibrations between Hope and Fear. In Craine, James W., Giorgio Hadi Curti and Stuart C. Aitken (editors) *The Fight to Stay Put*. Stuttgart: Franz Steiner Verlag Press.
- Goode, Ryan J., Swanson, Kate and Aitken, Stuart C. (2012) *From God to Men: Media and the Turbulent Fight for Rio's Favelas* In Craine, James W., Giorgio Hadi Curti and Stuart C. Aitken (editors) *The Fight to Stay Put*. Stuttgart: Franz Steiner Verlag Press.
- Craine, James W., Giorgio Hadi Curti and Stuart C. Aitken (2012) *Cosmopolitan Sex, Sado-Masochistic Violence And Networks Of Blood* In Craine, James W., Giorgio Hadi Curti and Stuart C. Aitken (editors) *The Fight to Stay Put*. Stuttgart: Franz Steiner Verlag Press.
- Craine, James, Giorgio Curti and Stuart C. Aitken (2012). *RocknRolla*. In James W. Craine, Giorgio Hadi Curti and Stuart C. Aitken (editors) *The Fight to Stay Put: Social Lessons through Media Imagining of Urban Transformation and Change*. Stuttgart: Franz Steiner Verlag Press.
- Craine, James and Stuart Aitken (2011) *The Emotional Life of Maps and Other Visual Geographies*. In Martin Dodge, Rob Kitchin and Chris Perkins (editors) *Rethinking Maps*. Guilford Press.
- Aitken, Stuart C. and Deborah P. Dixon (2011). *Imagining Geographies of Film*. In Derek Gregory and Noel Castree (editors) *Fundamentals of Geography*. London and New Delhi: Sage.
- Aitken, Stuart C. and Don Colley III (2011). *Spaces of Schoolyard Violence*. In Michele Paludi (editor). *The Psychology of Teen Violence and Victimization*. Praeger Press ABC-CLIO. In Press.
- Aitken, Stuart C., Li An, Sarah Wandersee and Yeqin Yang (2011). *Renegotiating Local Values: The Case of Fanjingshan Reserve, China*. In Cathrine Brun, Piers Blakie and Mike Jones (editors). *Unravelling Marginalisation, Voicing change: Alternative geographies of Development*. West Hartford, CT: Kumarian Press.
- Lulka, David and Stuart C. Aitken (2011) *Dredging History: The Price of Preservation at La Jolla's Children's Pool*. In Louise Holt (editor) *Geographies of Children, Youth and Families: An International Perspective*, pp 167-188. New York and London: Routledge.

- Aitken Stuart C. and Craine, James W. (2011). Affective Geovisualizations. In Martin Dodge, Rob Kitchin and Chris Perkins (editors), *The Map Reader: Theories of Mapping Practice and Cartographic Representation*. John Wiley & Sons, Ltd., The Atrium, Southern Gate, Chichester, pp 278-81.
- Aitken, Stuart C. and Deborah P. Dixon (2011). Avarice and Tenderness in the Cinematic Landscapes of the American West. In Michael Dear, Jim Ketchum, Sarah Luria and Doug Richardson (editors), *Geohumanities: Art, History, Text at the Edge of Place*, pp. 196-205. London and New York: Routledge.
- Aitken, Stuart C. (2011) Time and Place: In and Beyond 'the Field'. In Lynn Jamieson, Roona Simpson and Ruth Lewis (editors) *Researching Families and Relationships: Reflections on Process*, pp. 96-121. Basingstoke: Palgrave Publishers Ltd.
- DeLyser, Dydia, Steve Herbert, Stuart C. Aitken, Mike Crang and Linda McDowell (2010). Engaging Qualitative Geography. In *The Handbook for Qualitative Methods in Geography*. pp. 1- 17 London, Edited by Dydia DeLyser, Stuart Aitken, Steve Herbert, Mike Crang, and Linda McDowell Thousand Oaks & New Delhi: Sage Publications.
- Aitken, Stuart C. (2010). Thrown-togetherness: Encounters with Difference and Diversity. In *The Handbook for Qualitative Methods in Geography*. Edited by Dydia DeLyser, Stuart Aitken, Steve Herbert, Mike Crang, and Linda McDowell, pp 46-68. Thousand Oaks & New Delhi: Sage Publications..
- Aitken, Stuart C. and Mei-Po Kwan (2010). GIS as Qualitative Research: Knowledge, Participatory Politics and Cartographies of Affect. In *The Handbook for Qualitative Methods in Geography*. Edited by Dydia DeLyser, Stuart Aitken, Mike Crang, Steve Herbert and Linda McDowell, pp 286-303. Thousand Oaks & New Delhi: Sage Publications. Sage Publications.
- Aitken, Stuart C. (2009). 'Now, where was I?' - Memories, Motels, and Male Hysteria. In Dave Clarke, Valerie Crawford Pfannhauser and Marcus Doel. Lanham (editors), *Moving Pictures/Stopping Places: Hotels and Motels in Film*, pp. 219-233. MN: Lexington Books, a division of Rowman and Littlefield.
- Aitken, Stuart and James Craine (2009). Into the Image and Beyond: Visual Geographies and GIS. In Sarah Elwood and Meghan Cope (editors) *Qualitative GIS: A Mixed Methods Approach*. pp 139-155 Los Angeles and London: Sage.
- Aitken, Stuart and James Craine (2009). Affektive Geovisualisierung. In Joerg Doering and Tristan Thielmann (editors) *Mediengeographie*, pp. 481-488. Bielefeld, Germany: Transcript Press.
- Moreno, Chris and Stuart Aitken (2008). Space Operas and Cultures of Addiction: The Animated Tale of Philip K. Dick's *A Scanner Darkly* In Anton Escher, Stefan Zimmermann and Chris Lukinbeal (editors), pp. 115-135. *The Geography of Cinema - A Cinematic World*. Stuttgart: Franz Steiner Verlag Press.
- Crotty, Sean, Christopher Moreno and Stuart C. Aitken (2008). Each And Every Single Story About Me ... There's Like A Huge Twist To It": Growing Up At Risk In The United States. In Craig Jeffreys and Jane Dyson (editors) *Telling Young Lives*, pp. 97-112. Philadelphia: Temple University Press.
- Aitken, Stuart C. (2008). *Desarrollo Integral y Fronteras/Integral Development & Borderspaces*. In Stuart C. Aitken, Anne Trine Kjørholt and Ragnhild Lund (editors). *Global Childhoods: Globalization, Development and Young People*, pp. 113-130. Routledge.
- Aitken, Stuart C., Anne Trine Kjørholt and Ragnhild Lund (2008). Why Children? Why Now? In Stuart C. Aitken, Anne Trine Kjørholt and Ragnhild Lund (editors). *Global Childhoods: Globalization, Development and Young People*, pp. 3-12. Routledge.
- Aitken, Stuart C. (2008). Dreams and Nightmares as Part of the Order/Disorder of the City. In Phil Hubbard, Tim Hall, and John Rennie Short (editors). *The Compendium of Urban Studies*, 373-388. Sage Publications.
- Aitken, Stuart C. (2007). Moving Images Contriving the Stories of Our Lives. In Ian Douglas, Chris Perkins and Richard Hugget (editors) *From Local to Global: The Companion Encyclopedia of Geography*, pp 603-614. London & New York: Routledge.
- Aitken, Stuart and Gill Valentine (2006) Introducing Philosophies, People and Practices. In *Key Perspectives in Geography: Philosophies, People and Practices*. Edited by Stuart Aitken and Gill Valentine. Sage Publications.
- Valentine, Gill and Stuart Aitken (2006) Contested Geographies: Culture Wars, Personal Clashes and Joining Debate. In *Key Perspectives in Geography: Philosophies, People and Practices*. Edited by Stuart Aitken and Gill Valentine. Sage Publications.
- Aitken Stuart C. (2005) Textual Analysis: Reading Culture and Context. In Robin Flowerdew and David Martin (editors) *Methods in Human Geography*, 2nd Edition, pp. 233-249. Harlow: Longman.
- Aitken, Stuart C. (2005) The Awkward Spaces of Fathering. In Bettina van Hoven and Kathrin Hoerschelmann (editors) *Spaces of Masculinity*, pp. 222-237. New York and London: Routledge.
- Aitken Stuart C. and James Craine (2005) Visual Methodologies: what you see is not always what you get. In Robin Flowerdew and David Martin (editors) *Methods in Human Geography*, 2nd Edition, pp. 250-269. Harlow: Longman.
- Aitken, Stuart C. and Joel Jennings (2004) Clarity, Rights and Children's Spaces of Discipline. In Roxanna Transit (editor). *Disciplining the Child Via the Discourse of the Professions*, pp130-155. Charles C. Thomas Publisher – LTD.

- Aitken, Stuart C. (2004). Placing Children at the Heart of Globalization. In Barney Warf, Kathy Hansen and Don Janelle (Editors), *World Minds: Geographical Perspectives on 100 Problems*, pp. 579-584. Kluwer Academic Publishers: Norwell, MA.
- Aitken, Stuart C. Don Mitchell and Lynn Staeheli. (2004) Urban Geography. In Gary Gaile and Cort Wilmott (editors), pp. 237-265. *Geography in America at the Dawn of the 21st Century*, Oxford University Press.
- Aitken, Stuart C. (2002). Public Participation, Technological Discourses and the Scale of GIS. In William Craig, Trevor Harris and Daniel Weiner (editors) *Community Participation and Geographic Information Systems*, pp. 357 – 366. London and New York: Taylor and Francis.
- Aitken, Stuart C. (2002) Tuning the Self: City Space and SF Horror Movies. In Rob Kitchin and James Kneale (editors) *Lost in Space: Geographies of Science Fiction*, pp. 103-122 London & New York: Continuum.
- Aitken, Stuart C. and Giorgio H. Curti (2012). Philosophy in Human Geography. In Byron Kaldis (editor) *Philosophy and the Social Sciences*. London and New Delhi: Sage Publications.
- Aitken, Stuart C. (2009). Analysis of Movies and Films. In Rob Kitchin and Nigel Thrift (editors). *International Encyclopedia of Human Geography*, pp 196-200. Oxford: Elsevier.
- Aitken, Stuart C. (2009). Community. In Rob Kitchin and Nigel Thrift (editors). *International Encyclopedia of Human Geography*, pp 221-225. Oxford: Elsevier.
- Aitken, Stuart C. (2009). Parenting, Fatherhood and Motherhood. In Rob Kitchin and Nigel Thrift (editors). *International Encyclopedia of Human Geography*, pp. 72-76. Oxford: Elsevier.
- Aitken, Stuart C. (2007). Families. In Michael Flood, Judith Kegan Gardiner, Robert Pease and Keith Pringle (editors) *Encyclopedia of Men & Masculinities*, pp. 182-5. London and New York: Routledge.
- Aitken, Stuart C. (2007). Power Relations. In Michael Flood, Judith Kegan Gardiner, Robert Pease and Keith Pringle (editors) *Encyclopedia of Men & Masculinities*, pp. 500-501. London and New York: Routledge.
- Aitken, Stuart C. and Li An (2011). Figured Worlds: Environmental complexity and Affective ecologies in Fanjingshan, China. *Ecological Modelling*.
- Giorgio Hadi Curti, Stuart C. Aitken, Fernando J Bosco and Denise Dixon Goerisch (2011). For not limiting emotional and affectual geographies: a collective critique of Steve Pile's 'Emotions and affect in recent human geography'. *Transactions of the Institute of British Geographers*.
- Bosco, Fernando, Stuart C. Aitken and Tom Herman (2011). Women and Children in a Neighborhood Advocacy Group: Engaging Community and Refashioning Citizenship in a Border Town. *Gender, Place and Culture*, 155-178.
- Aitken, Stuart C. (2010). The Edge of the World: Embattled Leagues of Children and Seals Teeter on the Rim, Presidential Address, *Yearbook of the Association of Pacific Coast Geographers*. 72, 12-32.
- Aitken, Stuart C. (2010) Not Bad for a Little Migrant Working Kid. *Children's Geographies*. 8(4), 363-371.
- Aitken, Stuart C. and Vicky Plows (2010). Overturning assumptions about young people, border spaces and revolutions. *Children's Geographies*. 8(4), 327-333.
- Aitken, Stuart C. (2007). Poetic Child Realism: Scottish Film and the Construction of Childhood. *Scottish Geographical Journal*, Vol. 123 (1), 68-86.
- Aitken, Stuart C. (2007). *Desarrollo Integral y Fronteras/Integral Development & Borderspaces*. *Children's Geographies*, 5(1-2), 113-129.
- Aitken, Stuart C., Anne Trine Kjørholt and Ragnhild Lund (2007). Why Children? Why Now? *Children's Geographies*, 5 (1-2), 3-14.
- Aitken, Stuart C and Deborah Dixon (2006). Imagining Geographies of Film. *Erkunde: Archiv Für Wissenschaftliche Geographie*. Band 60, 326-336.
- Jennings, Joel, Stuart Aitken, Silvia Lopez Estrada and Adriana Fernandez (2006) Learning and Earning: Relational Scales of Children's Work. *Area* 38 (3), 231-240.
- Aitken, Stuart C. (2006). Leading Men to Violence and Creating Spaces for their Emotions. *Gender, Place and Culture*. 13 (5), 491-507.
- Aitken, Stuart, Silvia Lopez Estrada, Joel Jennings and Lina Aguirre (2006), Reproducing Life and Labor: Global Processes and Working Children in Tijuana. *Childhood*. 13 (3), 365-367
- Aitken, S.C. (2004). From Dismissals and Disciplinary Inclusions; From Block Politics to Panic Rooms. *Children's Geographies* 2(2), 171-175
- Craine, James and Stuart C. Aitken (2004). Street Fighting: Placing the Crisis of Masculinity in David Fincher's *Fight Club*. *GeoJournal* 59, 289-296.
- Aitken, Stuart C. and Randi Marchant (2003). Memories and Miscreants: Tales of Teenage Terror in America. *Children's Geographies* 1(2), 151-164.
- Aitken, Stuart C. (2003). Composing Identities: Films, Families and Racism. *Journal of Geography*, 102, 1-11.
- Aitken, Stuart C. and James Craine (2002). The Pornography of Despair: Lust, Desire and the Music of Matt Johnson. *ACME, An International E-Journal for Critical Geographers*. 1(1), 91-116.

CURRICULUM VITAE

Name: Li An

Rank: Associate Professor of Geography

Education:

June 2003 Ph.D. in Systems Modeling, Michigan State University
May 2002 Dual Biometric M.S. in Probability and Statistics, Michigan State University,
July 1992 M.S. in Systems Ecology, Chinese Academy of Sciences, Beijing, China
June 1989 B.S. in Economic Geography, Beijing (Peking) University, Beijing, China

Academic Appointments:

2009-present Associate Professor, Department of Geography, San Diego State University
2008-present Adjunct professor, Research Center of Eco-Environmental Sciences, Chinese
Academy of Sciences
2005-2009 Assistant Professor, Department of Geography, San Diego State University

Honors and Awards:

1. Research on human-environment interaction in the golden monkey reserve has been reported by SDSU Website (front page) and The 360 Magazine (The Magazine of San Diego State University) in 2009.
2. Outstanding Paper in Landscape Ecology (2006) for the paper "Exploring Complexity in a Human-Environment System: An Agent-based Spatial Model for Multidisciplinary and Multiscale Integration" (by An et al. in *Annals of the Assoc. of Am. Geog.* 95(1): 54-79), the US Chapter of the International Association of Landscape Ecologists.
3. Gill-Chin Lim Award for Outstanding Doctoral Dissertation in Global Studies, Michigan State University (2004).
4. Dissertation Completion Fellowship for outstanding dissertations from College of Agriculture and Natural Resources, Michigan State University. Total: \$4,000 (2002).
5. NASA-MSU Scholarship in Landscape Ecology from the National Aeronautics and Space Administration (NASA) and Michigan State University (MSU) (1998).

Professional Activities:

1. Fall 2011 panel member for Doctoral Dissertation Research Improvement (DDRI) Grant, Geography and Spatial Science Program, National Science Foundation (NSF) USA.
2. Organized and presented at the 2010 AAAS symposium "Mapping and disentangling human decisions in complex human-nature systems" at Washington, DC, February 17-21, 2011.
3. Finished guest-editing a special issue for the journal *Ecological Modeling*. The special issue is titled "Mapping and disentangling human decisions in complex human-nature systems".
4. Established and maintained a Research-Education-Outreach Partnership between the Fanjingshan National Nature Reserve (FNNR) in China, San Diego State University (SDSU), the Chinese Academy of Sciences, and the Zoological Society of San Diego (ZSSD) for the endangered Guizhou golden monkey (*Rhinopithecus brelichi*). Li An and associates were awarded travel grants (through FNNR) from China's State Bureau of Foreign Experts to visit FNNR and conduct fieldwork in 2009.

5. Developing a new computational methodology called “pseudo-history analysis”, which integrates agent-based modeling and statistical modeling. This project will bring new views on the validity and reliability of various statistical methods and sampling strategies.
6. Organized Session 5108 “Perspectives on Geographic Complexity I: Theory”, and chaired Session 5408 “Perspectives on Geographic Complexity III: Applications I—Land Use” at The 2008 Annual meeting of The Association of American Geographers (April 15-19), 2008, Boston.

**Participation in
Campus Governance:**

1. SDSU Student Research Committee (2008-2011): Plan, coordinate, and execute activities associated with the annual SDSU Student Research Symposium in spring semesters.
2. Member of SDSU College of Arts and Letters Chinese Study Institute (<http://www-rohan.sdsu.edu/~csi/members.htm>).
3. Member of SDSU Confucius Institute (<http://confucius.sdsu.edu/news.php>).
4. Member of the San Diego GIS force group (<http://map.sdsu.edu>).
5. Advisor of SDSU Chinese Students & Scholars Association (<http://cssa.sdsu.edu/>), 2009-2011.

Extramural Support: Summarized in Self Study and Data Notebook documents [Not included as already summarized elsewhere]

Publications: In this section:

- 1) List the **total number of scholarly publications**: 31 publications (26 peer-review journal articles and 5 book chapters)
- 2) Provide a list of the **five most significant articles or books**; and

An, L. (2011). Modeling human decisions in coupled human and natural systems: review of agent-based models. Special Issue of Ecological Modelling (in press).

An, L., D. G. Brown, J. Nassauer, and B. Low (2011). Variations in Development of Exurban Residential Landscapes: Timing, Location, and Driving Forces. *Journal of Land Use Science* 6 (1): 13–32.

An, L., and J. Liu (2010). Long-Term Effects of Family Planning and Other Determinants of Fertility on Population and Environment: Agent-Based Modeling Evidence from Wolong Nature Reserve, China. *Population and Environment* 31:427–459.

An, L., and D.G. Brown. (2008). Survival analysis in land-change science: integrating with GIScience to address temporal complexities. *Annals of Association of American Geographers* 98(2): 323-344.

An, L., M. Linderman, J. Qi, A. Shortridge, and J. Liu. (2005). Exploring complexity in a human-environment system: an agent-based spatial model for multidisciplinary and multi-scale integration. *Annals of Association of American Geographers* 95 (1): 54-79.

- 3) List **all scholarly publications appearing within the past six years**, 2005-06 through the present. If the CV exceeds four pages, make the six-year publication list selective and label it so.

- An, L., D. López-Carr (in press). Editorial: Understanding human decisions in Coupled Human-Nature Systems. Special Issue of Ecological Modelling.
- An, L. (in press). Modeling human decisions in coupled human and natural systems: review of agent-based models. Special Issue of Ecological Modelling.
- Wandersee, S.M., L. An, D. López-Carr, Y. Yang (in press). Perception and Decisions in Modeling Coupled Human and Natural Systems: A Case Study from Fanjingshan National Nature Reserve, China. Special Issue of Ecological Modelling.
- Chen, X., F. Lupi, L. An, R. Sheely, A. Viña, J. Liu. (in press). Modeling the effects of social norms on enrollment in payments for ecosystem services. Special Issue of Ecological Modelling.
- S.C. Aitken, L. An (in press). Figured Worlds: Environmental Complexity and Affective Ecologies in Fanjingshan, China. Special Issue of Ecological Modelling.
- An, L., D. G. Brown, J. Nassauer, and B. Low (2011). Variations in Development of Exurban Residential Landscapes: Timing, Location, and Driving Forces. *Journal of Land Use Science*. 6 (1): 13–32.
- An, L., and J. Liu (2010). Long-Term Effects of Family Planning and Other Determinants of Fertility on Population and Environment: Agent-Based Modeling Evidence from Wolong Nature Reserve, China. *Population and Environment* 31:427–459.
- He, G., M. Colunga, S. Bearer, L. An, M. Linderman, S. Zhou, J. Huang, S. Gage, Z. Ouyang, J. Liu. (2009). Spatial and temporal patterns of fuelwood collection in a nature reserve: implications for panda conservation. *Landscape and Urban Planning* 92(1): 1-9.
- An, L., and D. G. Brown. (2008). Survival analysis in land-change science: integrating with GIScience to address temporal complexities. *Annals of Association of American Geographers* 98(2): 323-344.
- Rindfuss, R. R., B. Entwisle, S. J. Walsh, L. An, D. G. Brown, P. Deadman, T. P. Evans, et al. (2008). Land use change: Complexity and comparisons. *Journal of Land Use Science* 3(1): 1-11.
- Parker, D. C., B. Entwisle, R. R. Rindfuss, L. K. VanWey, S. M. Manson, E. Moran, L. An, P. Deadman, T. Evans, M. Linderman, and G. Malanson. (2008). Case studies, cross-site comparisons, and the challenge of generalization: Comparing agent-based models of land-use change in frontier regions. *Journal of Land Use Science* 3(1): 41-72.
- Bearer, S. L., M. Linderman, J. Huang, L. An, G. He, and J. Liu. (2008). Effects of fuelwood collection and timber harvesting on giant panda habitat use. *Biological Conservation* 141(2): 385-393.
- Brown, D. G., D.T. Robinson, J.I. Nassauer, and L. An, S.E. Page, B. Low, W. Rand, M. Zellner, R. Riolo, and J.J. Taylor. (2008). Exurbia from the bottom-up: confronting empirical challenges to characterizing a complex system. *GeoForum* 39(2): 805-818.

Viña, A., S. Bearer, X. Chen, G. He, M. Linderman, L. An, H. Zhang, Z. Ouyang, and J. Liu. (2007). Temporal changes in connectivity of giant panda habitat across the boundaries of Wolong Nature Reserve (China). *Ecological Applications* 17(4): 1019-1030.

An, L., G. He, Z. Liang, and J. Liu. (2006). Impacts of demographic and socioeconomic factors on spatio-temporal dynamics of panda habitats. *Biodiversity and Conservation* 15: 2343-2363.

Linderman, M., L. An, S. Bearer, G. He, Z. Ouyang, and J. Liu. (2006). Interactive effects of natural and human disturbances on vegetation dynamics across landscapes. *Ecological Applications* 16(2): 452-463.

An, L., M. Linderman, J. Qi, A. Shortridge, and J. Liu. (2005). Exploring complexity in a human-environment system: an agent-based spatial model for multidisciplinary and multi-scale integration. *Annals of Association of American Geographers* 95 (1): 54-79.

Linderman, M., L. An, S. Bearer, G. He, Z. Ouyang, and J. Liu. (2005). Modeling the spatio-temporal dynamics and interactions of households, landscapes, and giant panda habitat. *Ecological Modelling* 183(1): 47-65.

Linderman, M., S. Bearer, L. An, Y. Tan, Z. Ouyang, and J. Liu. (2005). The effects of understory bamboo on broad-scale estimates of giant panda habitat. *Biological Conservation* 121 (2005) 383-390.

[Book chapters below]

S.C. Aitken, L. An, S. Wandersee, and Y. Yang (accepted). Renegotiating local values: The Case of Fanjingshan Reserve, China (book chapter).

An, L., M. Linderman, Guangming He, Z. Ouyang, and J. Liu (2011). Long-term ecological effects of demographic and socioeconomic factors in Wolong Nature Reserve (China). In *Human Population: Its Influences on Biological Diversity* (Richard P. Cincotta, and L.J. Gorenflo, eds., Springer-Verlag).

Liu, J., L. An, S. S. Batie, S. Bearer, X. Chen, R. E. Groop, G. He, Z. Liang, M. A. Linderman, A. G. Mertig, Z. Ouyang, J. Qi, H. Zhang, S. Zhou. (2005). Beyond Population Size: Examining intricate Interactions among Population Structure, Land Use, and Environment in Wolong Nature Reserve (China). In: *Population, Land Use, and Environment – Research Directions* (report of the National Research Council, Barbara Entwisle and Paul Stern, editors, The National Academies Press, Washington, DC; pages 217-237).

[Reports below]

Gupta, D.K., B. Spitzberg, M. Tsou, L. An, J.M. Gawron (accepted). Tracking the spread of violent extremism: a generalized methodology for tracking ideas over time and space. For the Department of Homeland Security, Air Force Research Laboratory initiated White Paper on Counterterrorism and Radicalization.

CURRICULUM VITAE

Name: Trent W. Biggs

Rank: Associate Professor

Education: (Degree, year awarded, institution)

BA 1995 Princeton University, Ecology and Evolutionary Biology

MA 2000 University of California, Santa Barbara, Geography

PhD 2003 University of California, Santa Barbara, Geography

Academic Appointments: (Year, title, institution)

2003-2005 Postdoctoral Fellow, International Water Management Institute

2007-2010 Assistant Professor, Geography Department, San Diego State University

2010-present Associate Professor, Geography Department, San Diego State University

Honors and Awards: (May be a selective list)

Professional Activities: (E.g., editorial boards, professional society committee service, officer of professional society, etc. [May be selective a list])

Participation in

Campus Governance: (Service on important campus or system wide committees. [May be a selective list])

2010-present University Senate

2010-present Co-Director, Environmental Studies Program

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications: In this section:

1) List the **total number of scholarly publications** (e.g., 25 publications);

26

2) Provide a list of the **five most significant articles or books**; and

Biggs, T.W., Atkinson, E., Powell, R. and Ojeda, L., 2010. Land cover following rapid urbanization on the US-Mexico border: Implications for conceptual models of urban watershed processes. *Landscape and Urban Planning*, doi:10.1016/j.landurbplan.2010.02.005.

Biggs, T.W., C.A. Scott, A. Gaur, T. Chase, and E. Lee., 2008. Impacts of irrigation and anthropogenic aerosols on the water balance, heat fluxes and surface temperature in a river basin. *Water Resources Research* 44, doi: 10.1029/2008WR006847.

Biggs, T.W., Dunne, T., Roberts, D.L., Matricardi, E., 2008. The rate and extent of deforestation in watersheds of the southwestern Amazon Basin. *Ecological Applications*. 18: 31-48.

Biggs, T. W.; P. S. Thenkabail; M. K. Gumma; C. Scott; G. R. Parthasaradhi and H. Turrall. 2006. Irrigated area mapping in heterogeneous landscapes with MODIS time series, ground truth and census data, Krishna Basin, India. *International Journal of Remote Sensing* 27: 4245-4266.

Biggs, T.W., Dunne, T., Martinelli, L.A., 2004. Natural controls and human impacts on stream nutrient concentrations in a deforested region of the Brazilian Amazon basin. *Biogeochemistry* 68, 227-257.

- 3) List **all scholarly publications appearing within the past six years**, 2005-06 through the present. If the CV exceeds four pages, make the six-year publication list selective and label it so.

Bouma, J.A., **Biggs, T.W.** and Bouwer, L.M., 2011. The downstream externalities of harvesting rainwater in semi-arid watersheds: An Indian case study. *Agricultural Water Management*, 98(7): 1162-1170.

Chatterjee, A., E. Blom, B. Gujja, R. Jacimovic, L. Beevers, J. O'Keeffe, M. Beland, and **T. Biggs**. 2010. WWF Initiatives to Study the Impact of Climate Change on Himalayan High-altitude Wetlands (HAWs). *Mountain Research and Development* 30 (1):42-52.

Venot J-P, Jella K, Bharati L, George B, **Biggs T.**, Rao PG, Gumma MK, & Acharya S. 2010. Farmers' Adaptation and Regional Land-Use Changes in Irrigation Systems under Fluctuating Water Supply, South India. *Journal of Irrigation and Drainage Engineering* **136**, 595-609.

Van Rooijen, D., **Biggs, T.**, Smout, I. and Drechsel, P. 2010. Urban growth, wastewater production and use in irrigated agriculture: a comparative study of Accra, Addis Ababa and Hyderabad. *Irrigation and Drainage Systems* 24: 53–64, doi 10.1007/s10795-10009-19089-10793.

Biggs, T.W., Atkinson, E., Powell, R. and Ojeda, L., 2010. Land cover following rapid urbanization on the US-Mexico border: Implications for conceptual models of urban watershed processes. *Landscape and Urban Planning*, doi:10.1016/j.landurbplan.2010.02.005.

Biggs, T.W., Gangadhara Rao, P. and Bharati, L., 2010. Mapping agricultural responses to water supply shocks in large irrigation systems, southern India. *Agricultural Water Management*, 97(6): 924-932, doi:10.1016/j.agwat.2010.01.027.

Van Rooijen, D. J., H. Turrall, and **T. W. Biggs**. 2009. Urban and industrial water use in the Krishna Basin, India. *Irrigation and Drainage* 58 (4):406-428.

Lee, E., Chase, T.N., Rajagopalan, B., Barry, R.G., **Biggs, T.W.** and Lawrence, P.J., 2009. Effects of irrigation and vegetation activity on early Indian summer monsoon variability. *International Journal of Climatology*: 29 (4):573-581, doi 10.1002/joc.1721.

Biggs, T. W., and B. Jiang. 2009. Soil Salinity and Exchangeable Cations in a Wastewater Irrigated Area, India. *J Environ Qual* 38 (3):887-896.

Venot, J.-P., **Biggs, T.**, Molle, F., Turrall, H., 2008. Reconfiguration and closure of river basins in south India: trajectory of the lower Krishna basin. *Water International* 33 (4), 436 - 450.

Van Rooijen, D., H. Turrall, and **T.W. Biggs.** 2008. Urban and industrial water use in the Krishna Basin, India. *Irrigation and Drainage* online:10.1002/ird.439.

Biggs, T.W., C.A. Scott, A. Gaur, T. Chase, and E. Lee., 2008. Impacts of irrigation and anthropogenic aerosols on the water balance, heat fluxes and surface temperature in a river basin. *Water Resources Research* 44, doi: 10.1029/2008WR006847.

Biggs, T. W., P. K. Mishra, and H. Turrall, 2008. Evapotranspiration and regional probabilities of soil moisture stress from rainfed crops, southern India, *Agricultural and Forest Meteorology*, 148 (11), 1585-1597, doi 10.1016/j.agrformet.2008.05.012.

Biggs, T.W., Dunne, T., Roberts, D.L., Matricardi, E., 2008. The rate and extent of deforestation in watersheds of the southwestern Amazon Basin. *Ecological Applications*. 18: 31-48.

Gaur, A., **Biggs, T.W.**, Gumma, M.K., Parthasaradhi, G. and Turrall, H., 2008. Water scarcity effects on equitable water distribution and land use in a major irrigation project--case study in India. *Journal of Irrigation and Drainage Engineering*, 134(1): 26-35.

Bouwer, L.M., **Biggs, T.W.**, Aerts, J.C.J.H. 2008. Estimates of spatial variation in evaporation using satellite-derived surface temperatures and a water balance model. *Hydrological Processes* 22: 670-682.

Biggs, T.W., Scott, C.A., Rajagopalan, B., Turrall, H. 2007. Trends in solar radiation due to clouds and aerosols, Krishna River Basin, Southern India, 1952-1997. *International Journal of Climatology*, 27: 1505-1518.

Biggs, T.W., Gaur, A., Scott, C.A., Thenkabail, P., Gangadhara Rao, R., Krishna Gumma, M., Acharya, S.K., Turrall, H. 2007. Closing of the Krishna Basin: Irrigation, Streamflow Depletion and Macroscale Hydrology. International Water Management Institute, Colombo, Sri Lanka. Research Report 111.

Thenkabail, P., Parthasaradhi, G., **Biggs, T.W.**, Gumma, M.K., Turrall, H. 2007. Spectral Matching Techniques to Determine Historical Land use/Land cover (LULC) and Irrigated Areas using Time-series AVHRR Pathfinder Datasets in the Krishna River Basin, India. *Photogrammetric Engineering & Remote Sensing*, 73: 1029-1040.

Biggs, T. W.; P. S. Thenkabail; M. K. Gumma; C. Scott; G. R. Parthasaradhi and H. Turrall. 2006. Irrigated area mapping in heterogeneous landscapes with MODIS time series, ground truth and census data, Krishna Basin, India. *International Journal of Remote Sensing* 27: 4245-4266.

Biggs, T.W., Dunne, T., Muraoka, T., 2006. Transport of water, solutes, and nutrients from a pasture hillslope, southwestern Brazilian Amazon. *Hydrological Processes* 20, 2527-2547, doi: 10.1002/hyp.6214.

Water Science and Technology 53, 83–90.

Van Rooijen, D., Turrall, H., **Biggs, T.W.**, 2005. Sponge City: Water balance of mega-city water use and wastewater use in Hyderabad, India. *Irrigation and Drainage* 54, S81-S91.

CURRICULUM VITAE

Name: Fernando J. Bosco

Rank: Associate Professor

Education: Ph.D., 2002, The Ohio State University
M.A. 1997, The Ohio State University
B.A., 1994, Wittenberg University

Academic Appointments:

Associate Professor, Geography, San Diego State University (2008-present)

Co-Chair, Interdisciplinary Urban Studies Program, San Diego State University (2008-present)

Associated Faculty, Center for Interdisciplinary Studies of Youth and Space, San Diego State University (2006-present)

Associated Faculty, Center for Latin American Studies, San Diego State University (2003-present)

Assistant Professor, Geography, Department of Geography, San Diego State University (2002-2008)

Honors and Awards:

Mentor Recognition Award, University of California, San Diego (2007)

Fellowship, Summer Institute in Economic Geography, University of Wisconsin-Madison (2003)

Best Paper. Latin American Geography Specialty Group, Association of American Geographers (2002)

Best Paper. Ethics, Justice and Human Rights Specialty Group, Association of American Geographers (2002)

Presidential Fellowship, The Ohio State University (2001)

E. Willard and Ruby S. Miller Fellowship, The Ohio State University (2000)

Professional Activities:

Senior Panelist, Geography and Spatial Sciences Program, National Science Foundation (2010-present)

Editorial Board, *Open Geography Journal* (2009-present)

Editorial Board, *Yearbook of the Association of Pacific Coast Geographers* (2006-present)

Book Review Editor, *Emotion Space and Society* (2009-2010)

Co-chair and co-organizer, Association of Pacific Coast Geographers Annual Meeting, (2009)

Participation in Campus Governance:

Undergraduate Advisor, Urban Studies Program (2008 to present)

Ad Hoc FLAS Fellowship Selection Committee, Center for Latin American Studies (2006 to 2009)

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications:

1) Total publications during review period: 24

2) Five significant publications

Bosco, F., Aitken, S. and Herman, T. (2011) "Women and Children in a Neighborhood Advocacy Group: Engaging Community and Refashioning Citizenship at the United States-Mexico border" *Gender, Place and Culture* 18, 2: 155-178

Bosco, F. (2010) "Play, Work and Activism: Broadening the Connections Between Political and Children's Geographies". *Children's Geographies* 8, 4: 381-390

Bosco, F. (2007) "Emotions that Build Networks: Geographies of Two Human Rights Movements in Argentina and Beyond". *Tijdschrift voor Economische en Sociale Geografie* 98, 5: 545-563

Bosco, F. (2007) "Global Aid Networks and Hungry Children in Argentina: Thinking About Geographies of Responsibility and Care". *Children's Geographies*, 5, 1-2: 55-76

Bosco, F. (2006) "The Madres de Plaza de Mayo and Three Decades of Human Rights Activism: Embeddedness, Emotions and Social Movements". *Annals of the Association of American Geographers*, 96, 2: 342-365

3) List of publications

Edited Scholarly Books

Jackiewicz, E and Bosco, F., eds. (2012, in press) *Placing Latin America: Contemporary Themes in Geography* (revised, updated and expanded 2nd edition). Boulder, Rowman and Littlefield.

Aitken, S., Swanson, K., Bosco, F. and Herman, T., eds. (2011) *Young People, Border Spaces and Revolutionary Imaginations*. London, Routledge.

Jackiewicz, E. and Bosco, F., eds. (2008) *Placing Latin America: Contemporary Themes in Human Geography*. Boulder, Rowman and Littlefield.

Chapters in Refereed Books

- Bosco, F. and Salim, Z. (in press) "Urbanization in Latin America". In Jackiewicz, E. and Bosco, F., eds., *Placing Latin America: Contemporary Themes in Geography*. Boulder, Rowman and Littlefield.
- Bosco, F. (in press) "Latin American Social Movements: Splaces and Scales of Action". In Jackiewicz, E. and Bosco, F., eds., *Placing Latin America: Contemporary Themes in Geography*. Boulder, Rowman and Littlefield.
- Bosco, F. (in press) "The Relational Turn and the Political Geographies of Children and Young People" In *Geography, Power, and Justice: New Directions in the Classroom*. New York, Routledge.
- Bosco, F. (in press) "Disappearing, Struggling, and Resisting in Buenos Aires: Chronicle of an Escape" In Curti, G., Craine, J. and Aitken, S., eds. *The Fight to Stay Put: Social Lessons Through Media Imaginings of Gentrification, Displacement and Resistance*. Stuttgart: Franz Steiner Verlag.
- Bosco, F. (2010) "Actor-Network Theory" In Barney Warf, ed., *Encyclopedia of Human Geography*. London, Sage.
- Bosco, F. and Herman, T. (2010) "Focus Groups as Collaborative Research Performances" In DeLyser, Dydia, Stuart Aitken, Mike Crang, Steve Herbert and Linda McDowell (eds) *The SAGE Handbook of Qualitative Geography*, pp. 193-207. London, Thousand Oaks & New Delhi: Sage Publications.
- Bosco F. and Moreno C. (2009) "Fieldwork" In Kitchin R, Thrift N (eds) *International Encyclopedia of Human Geography*, Volume 1, pp. 119–124. Oxford: Elsevier
- Bosco, F. (2008) "The Geographies of Latin American Social Movements" In Jackiewicz, E. and Bosco, F., (eds) *Placing Latin America: Contemporary Themes in Human Geography*. Boulder, Rowman and Littlefield.
- Bosco, F. (2008) "Global Aid Networks and Hungry Children in Argentina: Thinking About Geographies of Responsibility and Care" In S. Aitken, A. T. Kjørholt, and R. Lund(eds) *Global Childhoods*. Routledge.
- Bosco, F. (2006) "Actor-Network Theory, Networks, and Relational Approaches in Human Geography" In Valentine, G. and Aitken, S. (eds) *Approaches to Human Geography*, London, Sage

Articles in Refereed Journals

- Curti, G., Aitken, S., Bosco, F. and Goerisch, D. (2011) "For Not Limiting Emotional and Affectual Geographies: A Collective Critique of Steve Pile's 'Emotions and Affect in Recent Human Geography'" *Transactions of the Institute of British Geographers*
- Bosco, F., Aitken, S. and Herman, T. (2011) "Women and Children in a Neighborhood Advocacy Group: Engaging Community and Refashioning Citizenship at the United States-Mexico border" *Gender, Place and Culture* 18, 2: 155-178

- Bosco, F. (2010) "Play, Work and Activism: Broadening the Connections Between Political and Children's Geographies". *Children's Geographies* 8, 4: 381-390
- Crotty, S. and Bosco, F. (2008) "Racial Geographies and the Challenges of Day Labor Formalization: A Case Study from San Diego County" *Journal of Cultural Geography* 25, 3: 223-244
- Bosco, F. (2007) "Mother Activism and the Geographic Conundrum of Social Movements" *Urban Geography* 28, 5: 426-431
- Bosco, F. (2007) "Emotions that Build Networks: Geographies of Two Human Rights Movements in Argentina and Beyond". *Tijdschrift voor Economische en Sociale Geografie* 98, 5: 545-563
- Bosco, F. (2007) "Global Aid Networks and Hungry Children in Argentina: Thinking About Geographies of Responsibility and Care". *Children's Geographies*, 5, 1-2: 55-76
- Bosco, F. (2006) "The Madres de Plaza de Mayo and Three Decades of Human Rights Activism: Embeddedness, Emotions and Social Movements". *Annals of the Association of American Geographers*, 96, 2: 342-365
- Bosco, F. (2004) "Human Rights Politics and Scaled Performances of Memory: Conflicts among the Madres de Plaza de Mayo in Argentina". *Social and Cultural Geography* 5, 3, 381-402
- Ettlinger, N. and Bosco, F. (2004) "Thinking through Networks and their Spatiality: A Critique of the US (Public) War on Terrorism and its Geographic Discourse". *Antipode* 36, 2: 249-271

Edited Theme Issues in Refereed Journals

- Aitken, S., Swanson, K., Bosco, F. and Herman, T., eds. (2010) "Young People, Border Spaces and Revolutionary Imaginations" *Children's Geographies* 8, 4.

CURRICULUM VITAE

Name: George Christakos
Rank: Professor

Education:

- PhD, 1990, Harvard University, Applied Sciences (Cambridge, MA, USA).
- DSc, 1986, National Technical University of Athens, Mining Geostatistics (Greece).
- MS, 1982, M.I.T., Civil & Environmental Engineering (Cambridge, MA, USA).
- MSc, 1980, University of Birmingham, Geoscience (Birmingham, UK).
- Diplom (Hon), 1979, National Technical University of Athens, Civil Engin. (Greece).

Academic Appointments:

- Distinguished Professor, Dept of Geography, SDSU, San Diego, CA, 2006-Present.
- Professor, School of Public Health, UNC-Chapel Hill, NC, 1990-2005.
- Adjunct Professor, Dept of Statistics, UNC-Chapel Hill, NC, 2001-2005.
- Yongqian Chair Professor, Zhejiang University, Hangzhou, China, 2011.
- Visiting Professor, Universite Catholique de Louvain-la-Neuve, Belgium, 2003.
- Honorary Professor, National Technical University of Athens, Greece, 2003-.
- Visiting Professor, Universidad de Granada, Spain, 2002.
- Director, Center for the Integrated Study of the Environment, NC, USA, 1999-2005.
- Director, Environmental Modelling (EM) program, UNC-Chapel Hill, NC, 1999-2002.
- Visiting Professor, Russian Academy of Sciences, Moscow, Russia, 2001.
- Visiting Professor, Universita' di Lecce, Lecce, Italy, 2000.
- Visiting Associate Professor, Stanford University, CA, USA, 1993-1994.
- Visiting Research Fellow, University of Cambridge, Cambridge, UK, 1987.
- Research Scientist, Kansas Geological Survey, Lawrence, KS, USA, 1986, 1988.
- Scientist, Institute of Geology & Mineral Exploration, Athens, Greece, 1985-1986.
- Research Associate, Ecole des Mines de Paris, Fontainebleau, France, 1982-1983.

Honors and Awards: (Selective list)

- Visiting Intern. Scholar Award, Zhejiang University, Hangzhou, China, 2007, 2012-3
- 20th Century E. Lukacs Distinguished Service Award, USA, 1999.
- Kenan Award, NC, 2001-2002.
- Award of the National Science Council, Taipei, Taiwan, 2009.
- Award of the Chinese Ministry of Education, Beijing, China, 2007.
- Award of the Spanish Ministry of Education, Madrid, Spain, 2001.
- Best Paper in Pedometrics Award, 2005.
- Faculty Award, UNC-Chapel Hill, 1990, 1995.
- Advanced Studies Institute Award, NATO, 1984, 1991.
- PhD Fellow Award, Harvard University, Cambridge, MA, USA, 1988-1990
- President's Prize, International Association for Mathematical Geology, 1991.
- Award for Distinguished Service, Kansas State, USA, 1987.
- Honorary Award, Ministry of Education, Athens, Greece, 1978.
- Honorary Co-Chair, ISEIS, Beijing, China, 2010.

Professional Activities: (Selective list)

- Editor-in-Chief, Journal of Stochastic Environmental Research & Risk Assessment.
- Associate Editor, Journal of Water Quality, Exposure and Health.
- Advisory Editor, Chilean Journal of Statistics.
- Editorial Board, Journal of Environmental & Ecological Statistics.
- Editorial Board, Journal of Advances in Water Resources.
- Associate Editor, Journal of Stochastic Hydrology & Hydraulics.

- Research advisor, National Institute of Environmental Health Sciences (NIEHS).
- Project reviewer, US Department of Energy (DoE).
- Project reviewer, US National Science Foundation (NSF).
- Research panelist, US Environmental Protection Agency (EPA).
- Research panelist, National Aeronautics and Space Administration (NASA).
- R&D Committee member, US Dept of Defense (DoD), Army Research Office (ARO).
- Higher Education Advisor, Programa de Doctorado Interuniversitario, Spain.
- Higher Education Advisor, University of Botswana, Botswana.
- External Reviewer, University of South Carolina, Columbia, SC.
- Scientific Consultant, NWO-Council for Earth & Life Sciences, the Netherlands.
- Scientific Consultant, S. Florida Water Management District.
- Scientific Consultant, GIE AXA Research Fund, ReInventon, Paris, France.
- Scientific Consultant, Versar-EPA.
- Research Consultant, Office of Research & Development, EPA.
- Research Consultant, Science Foundation of Ireland (SFI).
- Research Consultant, Swiss National Science Foundation.
- Expert Advisor, Environmental Benefits Mapping and Analysis Program, EPA.
- Expert Advisor, Consort. for Risk Evaluation with Stakeholder Participation (CRESP).

Participation in Campus Governance:

- CAL Personnel Committee (RTP) Committee, SDSU
- Center for Interdisciplinary Studies of Youth & Space, SDSU
- Global Health Joint Doctoral Program, Public Health, SDSU
- Healthy Borders Focus Group, San Diego, CA
- Departmental Committes, SDSU

Extramural Support: (Selective list)

- National Institute of Environmental Health Sciences (NIEHS)
- US Department of Defense (DOD)
- US Civilian Research & Development Foundation (CRDF)
- State of California Air Resources Board (CARB)
- Army Research Office (ARO)
- National Aeronautics & Space Administration (NASA)
- Department of Energy (DOE)
- SDSU Research Foundation
- Oak Ridge National Laboratory (ORNL), USA
- Fred J. Hansen Institute, USA
- National Science Foundation of China
- Spanish Ministry of Science & Innovation (Ministerio de Ciencia e Innovacion)
- Spanish Ministry of Education
- Swiss National Foundation (SNF)

Publications:

171 scholarly publications:

- 10 books; 7 book chapters; 5 entries in encyclopedias; 106 papers in refereed journals; 15 papers in refereed volumes; 28 papers in conference proceed.

Five most significant books: (Selective List)

- Christakos G, 2010. *Integrative Problem-Solving in a Time of Decadence*. Springer-Verlag, New York, N.Y.
- Christakos G, Olea RA, Serre ML, Yu H-L, Wang L-L, 2005. *Interdisciplinary Public Health Reasoning and Epidemic Modelling: The Case of Black Death*. Springer, New York, NY.
- Christakos G, Bogaert P, Serre ML, 2002. *Temporal GIS*. Springer, New York, NY.

- Christakos G, 2000. *Modern Spatiotemporal Geostatistics*. Oxford Univ. Press, New York, NY (Out of Print.); New Edition 2012, Dover Publ. Inc., Mineola, NY.
- Christakos G, 1992. *Random Field Models in Earth Sciences*. Academic Press, San Diego, CA (Out of Print.); New Edition 2005, Dover Publ. Inc., Mineola, NY.

Scholarly publications appearing within the past six years: (Selective List)

- Christakos G, 2012. "Space-Time Stochastic Modelling of Human Exposure". In *Encyclopedia of Environmentrics*, El-Shaarawi A.H. and Piegorsch W.W. (eds.), J. Wiley & Sons, Chichester, UK, In press.
- Wang J-F, Reis BY, Hu M-G, Christakos G, Yang W-Z, Sun Q, Li Z-J, Li X-Z, Lai S-J, Chen H, 2011. "Area disease estimation based on sentinel hospital records." *PLoS-One* 6(8).
- Christakos G, Angulo J.M., Yu H-L, 2011. "Constructing space-time pdf distributions in geosciences." *Boletín Geológico y Minero de España (BGME)* 122 (4): 531-542.
- Wang J-F, Wang Y, Zhang J, Christakos G, Jun-Ling Sun J-L, Liu X, Lu L, Fu X-Q, Shi Y-Q, Li X-M, Yang W-Z, 2011. "Spatiotemporal transmission and risk factors of Typhoid/Paratyphoid fever, Hongta District-China." *J. of the Amer. Medical Assoc.* Sub.
- Wang J-F, G Christakos, M-G Hu, C-S Jiang, Y-S Guo, Ma A-H, 2011. "Climate change and improvement of climate monitoring network." *Bull. Amer. Meteorol. Soc* Sub.
- Kolovos A, Angulo J, Modis K, Papantonopoulos G, Wang J-F, Christakos G, 2011. "Health risk analysis: The spatiotemporal spread of French flu." *Environmental Monitoring & Assessment*. Under review.
- Wang J-F, Guo Y-S, Christakos G, Yang W-Z, Liao Y-L, Li Z-J, Li X-Z, Lai S-J, Chen H-Y, 2011. "Hand-Foot-Mouth Disease (HFMD) spatiotemporal transmission and climate." *Intern. J. of Health Geographics*. In press.
- Cao C, Chang C, Wang J-F, Cao W, Kolovos A, Christakos G, Li X., 2010. "The explanatory spatiotemporal data analysis for pandemic SARS spreading in mainland China." *Chinese Science Bulletin*.
- Wang J-F, Liu X, Christakos G, Liao Y-L, Gu X, Zheng X-Y, 2010. "Assessing local determinants of Neural Tube defects in the Heshun region, China". *Intern. J. of GIS* 24(1): 107–127.
- Kolovos A., Skupin A., Jerrett M. and Christakos G., 2010. "Multi-perspective analysis and spatiotemporal mapping of air pollution monitoring data." *Environmental Science & Technology* 44(17): 6738-6744.
- Yu H-L, Christakos G, 2010. "Modelling and estimation of heterogeneous spatiotemporal attributes under conditions of uncertainty" *IEEE-Trans Geosciences & Remote Sensing*. Doi: 10.1109/TGRS.2010.2052624
- Yu H-L, Yang S-J, Yen H-J, Christakos G, 2010. "Spatiotemporal analysis of climate impact on dengue fever risk in Southern Taiwan". *SERRA* 25(4): 485-494.
- Porcu E, Mateu J, Christakos G, 2009. "Quasi-arithmetic means of covariance functions with potential applications to space-time data". *J. of Multivariate Anal.* 100: 1830-1844.
- Vilca F, Sanhueza A, Christakos G, 2009. "An extended Birnbaum–Saunders model and its application in the study of environmental quality in Santiago-Chile". *SERRA* 23(3): 299-307.
- Wang J-F, Christakos G, Hu M-G, 2009. "Modelling spatial means of surfaces with stratified non-homogeneity". *IEEE-Trans Geosciences & Remote Sens.* 47(12): 4167-74.
- Wang J-F, Liu X, Christakos G, Liao Y-L, Gu X, Zheng X-Y, 2009. "Assessing local determinants of neural tube defects in the Heshun region, Shanxi province, China." *BMC Public Health* 10: 52 [DOI: 10.1186/1471-2458-10-52].
- Yu H-L, Chen J-C, Christakos G, Jerrett M, 2009. "BME estimation of residential exposure to ambient PM10 and ozone at multiple time-scales". *Environ. Health Perspectives* 117: 537-544.
- Pang W, Christakos G, Wang J-F, 2009. "Comparative spatiotemporal analysis of fine Particulate Matter pollution." *Environmetrics* 20 [DOI: 10.1002/env.1007.]
- Wang J-F, Li L-F, Christakos G, 2009. "Estimating spatial attribute means in a GIS

- environment.” *Science China*. doi:10.1007/s11464-009-0113-x8.
- Wang J-F, Li X-H, Christakos G, Liao Y-L, Zhang T, Gu X, Zheng X-Y, 2009. “Geographical detectors-based health risk assessment and its application in the Neural Tube Defects study of the Heshun Region, China”. *Intern J. of GIS* 24(1): 107-127.
 - Wang J-F, Li L-F, Christakos G, 2009. “Sampling and Kriging spatial means: efficiency and conditions.” *Sensors* 9: 5224-5240.
 - Christakos G, 2008. "Bayesian Statistics in Spatial Analysis". In *Encyclopedia of Geography*: 187-189. Warf B. (ed.), Sage Publ. Inc., Thousand Oaks, CA.
 - Wang JF, Christakos G, Han WG, Meng B, 2008. “Data-driven exploration of ‘spatial pattern-time process-driving forces’ associations of SARS epidemic in Beijing, China”. *J. Public Health* 122: 1-11.
 - Bogaert P, Christakos G, Jerrett M, Yu H-L, 2008. “Spatiotemporal modelling of ozone distribution in the state of California.” *Atmospheric Environment* 43: 2471-2480.
 - Mateu J, Porcu E, Christakos G, 2007. "Fitting negative spatial covariances to geothermal field temperatures in Nea Kessani (Greece)." *Environmetrics* 18: 1-15.
 - Yu H-L, Christakos G, Modis K, Papantonopoulos G, 2007. "A composite solution method for physical equations and its application in the Nea Kessani geothermal field (Greece)". *J. of Geophysical Research-Solid Earth* 112(B6): B06104.
 - Christakos G, Olea RA, Yu H-L, 2007. "Recent results on the spatiotemporal modelling and comparative analysis of Black Death and bubonic plague epidemics". *J. Public Health* 121: 700-720.
 - Yu H-L, Kolovos A, Christakos G, Chen J-C, Warmerdam S, Dev B, 2007. “Interactive spatiotemporal modelling of health systems: SEKS-GUI framework.” *SERRA* 21: 555-72.
 - Baker R, Christakos G, 2007. "Revisiting prior distributions, Part I: Priors based on a physical invariance principle". *SERRA* 21(4): 427-434.
 - Baker R, Christakos G, 2007. "Revisiting prior distributions, Part II: Implications of the physical prior in maximum entropy analysis". *SERRA* 21(4): 435-446.
 - Yu H-L, Christakos G., 2006. “Spatiotemporal modelling and mapping of the bubonic plague epidemic in India.” *Intern. J. of Health Geographics* 5(12).
 - Christakos G, 2006. "Modelling with Spatial and Temporal Uncertainty.” *Encyclopedia of Geographical Information Science*: 1189-1194, Springer, New York, NY.
 - Choi K-M, Christakos G, Wilson ML, 2006. "El Niño effects on influenza mortality risks in the State of California". *J. Public Health* 120: 505-516.
 - Christakos G, 2005. "Recent methodological developments in geophysical assimilation modeling." *Reviews of Geophysics* 43: 1-10.
 - Olea RA, Christakos G, 2005. "Duration of urban mortality for the 14th century Black Death epidemic”. *Human Biology* 77(3): 291-303.
 - Savelieva E, Demyanov V, Kanevski M, Serre ML, Christakos G, 2005. “BME-based uncertainty assessment of the Chernobyl fallout”. *Geoderma* 128: 312-324.
 - Yu H-L, Christakos G, 2005. "Porous media upscaling in terms of mathematical epistemic cognition”. *Soc. of Industrial & Appl. Mathematics (SIAM)* 66(2): 433-446.
 - Christakos G, Olea RA, 2005. “New space-time perspectives on the propagation characteristics of the Black Death epidemic and its relation to bubonic plague”. *SERRA* 19(5): 307-314.

CURRICULUM VITAE

Name: Anne-Marie Debbané

Rank: Assistant Professor

Education:

Ph.D. in Human Geography, 2011

York University, Toronto, Canada

Dissertation Title: "A Political Ecology of Water and Agrarian Change in the Ceres Valley, South Africa"

Supervisor: Dr. Philip Kelly

Committee: Dr. Pablo Idahosa, Dr. Robin Roth, Dr. Peter Vandergeest

Examiner: Dr. Scott Prudham

Master in Environmental Studies, 2004

York University, Toronto, Canada

Dissertation Title: "Urban Water in South Africa: Struggles for Environmental Justice"

Supervisor: Dr. Roger Keil

Association Montessori Internationale Advanced Teacher Diploma, 1996

International Centre for Montessori Studies Foundation, Bergamo, Italy

Bachelor of Commerce, 1995

McGill University, Montreal, Canada

Academic Appointments:

2011 **Assistant Professor**, Geography Department, San Diego State University

2010 **Teaching Assistant**, Department of Geography, York University
(Global Environmental Change)

2008 **Course Director and Lecturer**, Department of Geography, York University
(State, Civil Society, and Spaces of Development)

2004 -2007 **Teaching Assistant**, Department of Geography, York University
(Political Ecology)

Honors and Awards:

Nominated for Best Dissertation Award, York University, 2011

Fonds Québécois de Recherche sur la Société et la Culture, Bourse-Doctorat,
\$60 000, 2006-2009

Social Sciences and Humanities Research Council of Canada, Doctoral Fellowship,
\$40 000, 2006-2008

Antipode Graduate Scholarship, \$2 000, 2006

York University Field Cost Fund, \$2 000, 2006
Ontario Graduate Scholarship, \$15 000, 2006-2007
Ontario Graduate Scholarship, \$15 000, 2005-2006
York University Entry Scholarship, \$4 000, 2004-2005

Professional Activities:

Referee for Professional Publications

Antipode
Geoforum

Participation in Campus Governance:

Departmental Committees

PhD Student Representative, Graduate Executive Committee, Department of Geography, York University, Toronto, 2005-2006.

Publications:

Debbané, A. (Submitted). "Reworking Nature and Race: The Politics of Water and Land Reform in the Ceres Valley, South Africa." *Environment and Planning D: Society and Space* (Special Issue on Water and Development). [author]

283 Collective¹. 2008. "What's Just? Afterthoughts on the Summer Institute in the Geographies of Justice 2007." *Antipode*, 40:5, pp. 736-750. [co-author]

Debbané, A. 2007. "The Dry Plight of Freedom: Commodifying Water in the Western Cape, South Africa." *Antipode*, 39:1, pp. 222-226. [author]

Keil, R. and Debbané, A. 2005. "Scaling Discourse Analysis: Experiences from Walvis Bay, Namibia and Hermanus, South Africa." *Journal of Environmental Policy and Planning*, 7:3, pp. 257-276. [second author]

Debbané, A. and Keil, R. 2004. "Multiple Disconnections: Environmental Justice and Urban Water in Canada and South Africa." *Space and Polity*, 8:2, pp. 209-225. [first author]

¹ The 283 Collective writing team includes: Jeremy Anderson, Laura Barraclough, Trevor Birkenholtz, Sandy Brown, Ipsita Chatterjee, Veronica Crossa, Kate Driscoll Derickson, Anne-Marie Debbané, Jen Giesecking, Sara Koopman, Matt Michelson, Diana Ojeda, Stijn Oosterlynck, Robin Jane Roff, Harold Perkins, Anu Sabhlok.

CURRICULUM VITAE

Name: Kathleen A. Farley

Rank: Assistant Professor

Education: Ph.D. Geography, University of Colorado, Boulder, 2002

Academic Appointments:

2006- Assistant professor, Department of Geography, San Diego State University, San Diego, CA
2005-2006 Ecoregional ecologist, The Nature Conservancy, Monterey, CA
2003-2005 Post-doctoral research associate, Center on Global Change, Duke University, Durham, NC
1998-2002 Teaching assistant, Department of Geography, University of Colorado, Boulder, CO
1996-1998 Research associate, EcoCiencia, Quito, Ecuador
1995 Research assistant, Department of Environment and Regional Planning, Organization of American States, Washington, D.C.
1994-1995 Research and teaching assistant, American University, Washington, D.C.

Honors and Awards:

University Fellowship, University of Colorado Graduate School, 1999-2001
Mabel Duncan Memorial Scholarship Award, 1999, 2001
Colorado Graduate Grant, 1999
Environmental Research Award, American University Center for Environmental Analysis and Social Ecology, 1995
Graduate Fellowship, American University School of International Service, 1994

Professional Activities:

Journal reviewer for:

Landscape Ecology, Annals of the Association of American Geographers, Global Environmental Change, Land Use Policy, Water Resources Research, Global Change Biology-Bioenergy, Ecological Economics, Journal of the American Water Resources Association, Forest Ecology and Management, Journal of Latin American Geography, Journal of Borderlands Studies, Ecography

Funding agency reviewer for:

National Science Foundation (Division of Behavioral and Cognitive Sciences, Geography and Spatial Sciences Program, Office of International Science and Engineering, and Earth Sciences Division), U.C. Davis Kearney Foundation for Soil Science

Professional Affiliations:

Association of American Geographers, Conference of Latin Americanist Geographers, Association of Pacific Coast Geographers, Ecological Society of America

Participation in Campus Governance:

SDSU: ISCOR (International Security and Conflict Resolution) Program, Executive Board Member

SDSU-Geography Department committees:

- 2011-12: Masters Advising, Scholarships and Awards, Centenary Committee
- 2010-11: Masters Advising, Scholarships and Awards, Hiring, Internal Resources
- 2009-10: Speakers (Chair), Scholarships and Awards, Undergraduate Advising
- 2008-9: Speakers and Community Relations, Scholarships and Awards, Undergraduate Advising
- 2007-8: Hiring, Speakers and Community Relations, Scholarships and Awards
- 2006-7: Speakers and Community Relations, Scholarships and Awards, Undergraduate Advising

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications:

Total number of scholarly publications: 17

Five most significant articles or books:

1. Farley KA, Tague C, Grant GE. 2011. Vulnerability of water supply from the Oregon Cascades to changing climate: linking science to users and policy. *Global Environmental Change* 21: 110-122.
2. Farley KA. 2007. Grasslands to tree plantations: forest transition in the Andes of Ecuador. *Annals of the Association of American Geographers* 97(4): 755-771.
3. Jackson RB, Jobbágy EG, Avissar R, Roy SB, Barrett D, Cook CW, Farley KA, Le Maitre DC, McCarl BA, Murray BC. 2005. Trading water for carbon with biological carbon sequestration. *Science* 310: 1944-1947.
4. Farley KA, Jobbágy EG, Jackson RB. 2005. Effects of afforestation on water yield: a global synthesis with implications for policy. *Global Change Biology* 11: 1565-1576.
5. Farley KA, Kelly EF, Hofstede RGM. 2004. Soil organic carbon and water retention following conversion of grasslands to pine plantations in the Ecuadorian Andes. *Ecosystems* 7(7): 729-739.

Scholarly publications, 2002 through the present:

Journal articles:

- Farley KA, Ojeda-Revah L, Atkinson EE, Eaton-González BR. 2012. Changes in land use, land tenure, and landscape fragmentation in the Tijuana River Watershed following the reform of the ejido sector. *Land Use Policy* 29: 187-197.
- Farley KA, Anderson WG, Bremer LL, Harden CP. 2011. Compensation for ecosystem services: an evaluation of efforts to achieve conservation and development in Ecuadorian páramo grasslands. *Environmental Conservation* 38(4): 1-13.
- Farley KA, Tague C, Grant GE. 2011. Vulnerability of water supply from the Oregon Cascades to changing climate: linking science to users and policy. *Global Environmental Change* 21: 110-122.
- Bremer LL and Farley KA. 2010. Does plantation forestry restore biodiversity or create green deserts? A synthesis of the effects of land-use transitions on plant species richness. *Biodiversity and Conservation* 19(14): 3893-3915.
- Farley KA. 2010. Pathways to forest transition: local case studies from the Ecuadorian Andes. *Journal of Latin American Geography* 9(2): 7-26.
- Farley KA, Piñeiro G, Palmer SM, Jobbágy EG, Jackson RB. 2008. Stream acidification and base cation losses with grassland afforestation. *Water Resources Research* 44, W00A03, doi:10.1029/2007WR006659.
- Farley KA. 2007. Grasslands to tree plantations: forest transition in the Andes of Ecuador. *Annals of the Association of American Geographers* 97(4): 755-771.

- Jobbágy EG, Vasallo M, Farley KA, Piñeiro G, Garbulsky MF, Noretto MD, Jackson RB, Paruelo JM. 2006. Forestación en pastizales: hacia una visión integral de sus oportunidades y costos ecológicos [Grassland afforestation: towards an integrative perspective of its ecological opportunities and costs]. *Agrociencia* 10(2): 109-124.
- Jackson RB, Jobbágy EG, Avissar R, Roy SB, Barrett D, Cook CW, Farley KA, Le Maitre DC, McCarl BA, Murray BC. 2005. Trading water for carbon with biological carbon sequestration. *Science* 310: 1944-1947.
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- Farley KA, Kelly EF, Hofstede RGM. 2004. Soil organic carbon and water retention following conversion of grasslands to pine plantations in the Ecuadorian Andes. *Ecosystems* 7(7): 729-739.
- Farley KA, Kelly EF. 2004. Effects of afforestation of a páramo grassland on soil nutrient status. *Forest Ecology and Management* 195: 281-290.

Chapters:

- Farley KA. 2011. Plantaciones forestales y producción de servicios ambientales [Plantation forestry and the production of ecosystem services]. In: Mena P, Ochoa N (Eds), *Serie Páramo*. Abya Yala: Quito, Ecuador (Invited Contribution), in press.
- Bremer LL, Farley KA. 2011. Carbon trading. In: Schiffman H, Robbins P (Eds), *Green Issues and Debates, Sage Green Series Volume 12*. Sage Publications: Thousand Oaks, CA.
- Farley KA, Bremer L. 2010. Timber plantations. In: Warf, B (Ed), *Encyclopedia of Geography*. Sage Publications: Thousand Oaks, CA, pp. 2834-2836.
- Bremer L, Carr, DL, Farley KA. 2010. Afforestation. In: Mulvaney D, Robbins P (Eds), *Green Politics: An A to Z Guide*. Sage Publications: Thousand Oaks, CA.
- Jackson RB, Farley KA, Hoffmann WA, Jobbágy EG, McCulley RL. Carbon and water tradeoffs in conversions to forests and shrublands. 2007. In: Canadell JG, Pataki DE, Pitelka LF (Eds), *Terrestrial Ecosystems in a Changing World*. Springer: Berlin, pp 237-244.

Book reviews:

- Farley KA. 2010. A review of "Environmental Policy Analysis and Practice" by M.R. Greenberg. *Annals of the Association of American Geographers* 100(3): 697-698.
- Farley K. 1996. A review of "Environmental Diplomacy: Negotiating More Effective Global Agreements" by LE Suskind. *Politics and the Life Sciences* 15(1): 125.

Technical reports and other publications:

- Farley KA, De Bievre B. 2009. Forestación: ¿Puede ayudar en un ecosistema no arbolado como páramo? Producción de servicios ambientales [Forestry: Can it help in a non-forested ecosystem like the páramo? Production of ecosystem services]. Invited contribution to the Electronic Forum on Best Practices in Andean Páramos, organized by CONDESAN, Quito, Ecuador.
- Farley, K. 2008. Plantaciones forestales y producción de servicios ambientales [Tree plantations and the production of ecosystem services]. In: Mena P, Ochoa N (Eds), *Serie Páramo*, number 26. Abya Yala: Quito, Ecuador.
- Swenson J, Farley K, et al. 1998. Estudio sobre clasificación y uso de suelo en el Chocó ecuatoriano [Land use study of the Ecuadorian Chocó]. Report submitted to the Ecuadorian Ministry of Public Works and the United Nations Development Programme, Quito, Ecuador.

de la Provincia de Carchi [A spatial analysis of census data for the counties Mira, Espejo, and Bolívar in Carchi Province]. Report submitted to the John D. and Catherine T. MacArthur Foundation by the “CARCHIPOP” Project, Quito, Ecuador.

Manosalvas R, Farley K. 1998. Monitoreo Ambiental Local: Reflexiones Sobre un Proceso de Capacitación en la Región Amazónica Ecuatoriana [Local Environmental Monitoring: Reflections on a Training Process in the Ecuadorian Amazon]. EcoCiencia: Quito, Ecuador.

Name: Allen Hope

Rank: Professor

Education:

University of Maryland	1983-1986	Ph.D.	Geography
University of Natal	1978-1979	M.Sc.Eng.	Hydrology
University of Natal	1977	H.D.E.	Education
University of Natal	1976	Honors	Geography
University of Natal	1973-1975	BS	Geography & Psychology

Academic Appointments:

SDSU	Professor	1993 - Present	Geography
	Co-Director, CESAR	1990 - Present	
	Associate Professor	1989 – 1993	Geography
	Assistant professor	1986 – 1989	Geography
Univ. of Maryland	Research Asst./Fellow	1983 – 1986	Civil Eng.
Univ. of Zululand	Research Hydrologist	1978 – 1982	Hydrology

Honors and Awards:

SDSU President's Top 25 Award, 2006

Participation in Camus Governance:

Environmental Sciences Steering Committee

Field Stations Governing Board

Publications:

Total Number = 79 (Refereed)

Most Significant Articles

Hope, A.S., N. Albers, and R. Bart. 2011. Characterizing post-fire recovery of fynbos vegetation in the Western Cape Region of South Africa using MODIS data. **International Journal of Remote Sensing**. In Press.

Hope, A.S. and R. Bart. 2011. Evaluation of a regionalization approach for daily flow duration curves in central and southern California catchments. **Journal of the American Water Resources Association**. In Press.

Hope, A.S., J. Decker, and P. Jankowski. 2008. Utility of Gridded Rainfall for IHACRES Daily River Flow Predictions in Southern California Watersheds. **Journal of the American Water Resources Association**, 44(2), 428-435.

Hope, A.S., C. Tague, and R. Clark. 2007. Characterizing Post-Fire Recovery of California Chaparral Using TM/ETM+ Time-Series Data. **International Journal of Remote Sensing**, 28(6), 1339-1354.

Hope, A., W. Boynton, D. Stow, and D. Douglas. 2003. NOAA-AVHRR Estimates of Vegetation Production for Three Arctic Tundra Ecosystems, 1989 to 1996. **International Journal of Remote Sensing**, 24(17), 3413-3425.

Scholarly Publications

Hope, A.S. and R. Bart. 2011. Evaluation of a regionalization approach for daily flow duration curves in central and southern California catchments. **Journal of the American Water Resources Association**. In Press.

Hope, A.S., N. Albers, and R. Bart. 2011. Characterizing post-fire recovery of fynbos vegetation in the Western Cape Region of South Africa using MODIS data. **International Journal of Remote Sensing**. In Press.

Coulter, L., A.S. Hope and D.A. Stow. 2011. Time-space radiometric normalization of TM/ETM scenes for land-cover change detection. **Photogrammetric Engineering and Remote Sensing**. Ifirst, 1-18.

Engstrom, R. and A. Hope. 2011. Parameter sensitivity of the Arctic BIOME BGC model for estimating evapotranspiration in the Arctic coastal plain. **Arctic, Antarctic and Alpine Research**, 43(3), 380-388.

Lathrop, S., D. Stow, L. Coulter and A. Hope. 2011. Delineating new foot trail within the US-Mexico border zone using semi-automatic linear object extraction methods and very high resolution imagery. **Journal of Spatial Science**, 55(1), 81-100.

Bart, R. and A.S. Hope. 2011. Streamflow response to fire using multiple paired catchment experiments in large central and southern California catchments. **Journal of Hydrology**, 388(3-4), 370-378.

Fitch, D.T., D.A. Stow, A.S. Hope and S. Rey. 2010. MODIS vegetation metrics as indicators of hydrological response in watersheds of California Mediterranean-type climate zones, **Remote Sensing of Environment**, 114(11), 2513-2523.

Blodgett, N., D. Stow, J. Franklin and A. Hope. 2010. Effect of fire weather, fuel age and topography on patterns of remnant vegetation following a large fire event in southern California, USA. **International Journal of Wildland Fire**, 19(4), 415-426.

Tague, C., L. Seaby and A. Hope. 2009. Modeling the eco-hydrologic response of a Mediterranean type ecosystem to the combined impacts of projected climate change and altered fire frequencies. **Climatic Change**, 93(1-2), 137-155.

Hope, A.S., A. Burvall, T. Germishuys, and T. Newby. 2009. River Flow response to Changes in Vegetation Cover in a South African Fynbos Catchment. **Water SA**, 35, 55-60.

Hope, A.S., J. Decker, and P. Jankowski. 2008. Utility of Gridded Rainfall for IHACRES Daily River Flow Predictions in Southern California Watersheds. **Journal of the American Water Resources Association**, 44(2), 428-435.

Engstrom, R.N., A.S. Hope, H. Kwon, and D.A. Stow. 2008. The Relationship Between Soil Moisture and NDVI in the Arctic Coastal Plain of Alaska. **Physical Geography**, 29(1), 38-53.

- Clark, R.E., A.S. Hope, S. Tarantola, D. Gatelli, P.E. Dennison, M.A. Moritz, 2008. Sensitivity Analysis of a Fire Spread Model in a Chaparral Landscape. **Fire Ecology**, 4(1), 1-13.
- Hope, A.S., C. Tague, and R. Clark. 2007. Characterizing Post-Fire Recovery of California Chaparral Using TM/ETM+ Time-Series Data. **International Journal of Remote Sensing**, 28(6), 1339-1354.
- Stow, D., A. Peterson, A. Hope, R. Engstrom, and L. Coulter. 2007. Greenness Trends of Arctic Tundra Vegetation in the 1990s: Comparison of Two Normalized Difference Vegetation Index Data Sets from NOAA Advanced Very High Resolution Radiometer Systems. **International Journal of Remote Sensing**, 28, 5175-5182.
- McMichael, C.E. and A.S. Hope. 2007. Predicting Stormflow Response to Fire Induced Landcover Change Implications of Model Uncertainty. **Journal of Environmental Management**, 84, 245-256.
- Engstrom, R., Hope, A., Kwon, H., Harazono, Y., Masayoshi, M., and Oechel, W. 2006. Modeling Evapotranspiration in Arctic Coastal Plain Ecosystems Using a Modified BIOME-BGC Model. **Journal of Geophysical Research**, 111 (G02021).
- Hope, A.S., R. Engstrom, and D.A. Stow. 2005. Relationship between AVHRR surface temperature and NDVI in arctic tundra ecosystems. **International Journal of Remote Sensing**, 26(8), 1771-1776.
- Hinzman, L., A. Hope, et al. 2005. Evidence and Implications of Recent Climate Change in Northern Alaska and Other Arctic Regions. **Climatic Change**, 72(3), 251-298.
- McMichael, C, Hope, A., and Loaiciga, H.A. 2005. Distributed Hydrological Modelling in Semi-Arid Shrublands: MIKE SHE Model Calibration and Uncertainty estimation, **Journal of Hydrology**, 317, 307-324.
- Engstrom, R. N., Hope, A.S., Kwon, H., Stow, D.A. 2005. Spatial distribution of near surface soil moisture and its relationship to microtopography and NDVI in the Arctic coastal plain. **Nordic Hydrology**, 36(3), 219-234.
- Hope, A.S., Stein, A.K. and McMichael, C.E. 2004, Uncertainty in Monthly River Discharge in a Semi-Arid Shrubland Catchment, **Proceedings of the International Conference on Hydrology: Science and Practice for the 21st Century**, British Hydrological Society, London, (1), 284-290.
- McMichael, C., Hope, A. and Roberts, D. 2004. Post-fire Recovery of Leaf Area Index in California Chaparral: A Remote Sensing-Chronosequence Approach, **International Journal of Remote Sensing**, 25(21), 4743-4760.
- Tague, C., C. McMichael, A. Hope, J. Choate. 2004. Distributed modeling of seasonal streamflow and soil moisture in semi-arid shrublands. **Journal of the American Water Resources Association**, 40(3), 575-589.
- Hope, A., K. Pence, and D. Stow. 2004. NDVI from Low Altitude Aircraft and Composited NOAA AVHRR data for Scaling Arctic Ecosystem Fluxes. **International Journal of Remote Sensing**, 25(00), 1-14.
- Stow, D., A. Hope, et al. 2004. Remote Sensing of vegetation and Land-Cover Change in Arctic Tundra Ecosystems. **Remote Sensing of Environment**, 89, 281-308.

- Tarnavsky, E., D. Stow, L. Coulter, and A. Hope. 2004. Spatial and radiometric fidelity of airborne multispectral imagery in the context of land-cover change analyses. **GIScience and Remote Sensing**, 41, 62-80.
- Hope, A., W. Boynton, D. Stow, and D. Douglas. 2003. NOAA-AVHRR Estimates of Vegetation Production for Three Arctic Tundra Ecosystems, 1989 to 1996. **International Journal of Remote Sensing**, 24(17), 3413-3425.
- Engstrom, R., A. Hope, and D. Stow: Estimating Evaporation in Arctic Landscapes Using the Priestly-Taylor Model. 2003. **Journal of the American Water Resources Association**. 38(6), 1647-1659.
- Stow, D., S. Daeshner, A. Hope, and D. Douglas. Variability of the Normalized Difference Vegetation Index Across the North Slope of Alaska in the 1990s. 2003. **International Journal of Remote Sensing**, 24(5), 1111-1117.
- Stow, D., L. Coulter, J. Kaiser, A. Hope, D. Service, K. Schutte, and A. Walters. 2003. Irrigated Vegetation Assessment for Urban Environments. **Photogrammetric Engineering and Remote Sensing**, 69 (4), 381-390.
- Vourlitis, G.L., Verfaillie, J., Oechel, W.C., Hope, A.S., Stow, D.A. and Engstrom, R. (2003) Spatial variation in regional CO₂ exchange for the Kuparuk river basin, Alaska over the summer growing season. **Global Change Biology**, 9, 930-941.
- LeDizes, S., B.L. Kwiatkowski, E.B. Rastetter, A.S. Hope, J.E. Hobbie, and D. Stow, 2003. Modeling Biogeochemical Responses of Tundra Ecosystems to Temporal and Spatial Variations in Climate in the Kuparuk River Basin (Alaska). **Journal of Geophysical Research**, 108(D2): ALT6 1-20.

CURRICULUM VITAE

Name: Jankowski, Piotr

Rank: Professor

Education: Ph.D., 1989, Department of Geography, University of Washington
M.S., 1979, Department of Econometrics and Operations Research, The Poznan
University of Economics

Academic Appointments:

2003 - present Professor and co-director of the Center for Center for Earth Systems Analysis
Research, Department of Geography, San Diego State University
2001 - 2002 Professor, Institute for Geoinformatics, University of Muenster, Germany
2000 - 2001 Professor, Department of Geography, University of Idaho
1995 - 2000 Associate Professor, Department of Geography, University of Idaho
1989 - 1995 Assistant Professor, Department of Geography, University of Idaho

Honors and Awards:

William Evans Visiting Fellow, University of Otago, New Zealand, March-April, 2011
Science Foundation Ireland, Walton Visiting Professor, University College Dublin, 2009
Fulbright Senior Specialist, Adam Mickiewicz University, Poznan, Poland, December 2008
Fulbright Senior Specialist, Westfaelische Wilhelms Universitaet, Muenster, Germany,
April 2005
Fulbright Senior Specialist, Adam Mickiewicz University, Poznan, Poland, June 2004
Outstanding Faculty Award for Teaching Excellence in 1993-1994, University of Idaho

Professional Activities:

2003-present, Journal of Geographical Systems, Editorial Board, member
2002-present, Transactions in GIS, Editorial Board, member
2007-2010, SAGE Encyclopedia of Geography, Associate Editor for GIScience

Participation in Campus Governance:

2005-2007, College of Arts and Letters, Tenure and Promotion Committee, member

Extramural Support:

Since joining Geography Department at SDSU in 2003, has been the PI on one NSF-funded research project (\$300,000) and co-PI on four projects (\$3.2 million) funded by NSF, NASA, and state agencies in CA.

Publications:

Published as the first author or co-author 53 articles in referred journals, 2 books, 19 book chapters, and 26 other publications including conference proceedings and articles in professional magazines. In total: 100 publications.

Five most significant articles and books (according to the number of citations)

Jankowski, P. 1995. Integrating GIS and Multiple Criteria Decision Making Methods, International Journal of Geographical Information Systems, 9(3):252-273

Jankowski, P., and T. Nyerges. 2001. *GIS for Group Decision Making*. Taylor & Francis, London.

Jankowski, P., T. Nyerges, A. Smith, T.J. Moore, and E. Horvath. 1977 Spatial Group Choice: A Spatial Decision Support Tool for Collaborative Decision Making, *International Journal of Geographical Information Systems*, 11:6, pp. 577-602.

Jankowski, P., N. Andrienko, G. Andrienko. 2001. Map-centered exploratory approach to multiple criteria spatial decision making. *International Journal of Geographical Information Science*, 15(2), p.101-127.

Jankowski, P., and T. Nyerges. 2001. GIS-Supported collaborative decision making: results of an experiment, *Annals of the Association of American Geographers*, 91(1), p.48-70.

Selected scholarly publications appearing between fall 2002 and spring 2011

Jankowski, P. 2011. Designing Participatory Geographic Information Systems. In Nyerges T.L., Couclelis, H., and R. McMaster (eds), *The Sage Handbook of GIS and Society*, pp. 347-360

Nyerges, T., and P. Jankowski. 2010. *Urban and Regional GIS: a decision support approach*. Guilford Press

Jankowski, P. Andrienko, G., Andrienko, N., Kisilevich, S. 2010. Discovering landmark preferences and movement patterns from photo postings. *Transactions in GIS*, 14(6): 833-852.

Ligmann-Zielinska, A., Jankowski, P. 2010. Exploring normative scenarios of land use development decisions with an agent-based simulation laboratory. *Computers, Environment and Urban Systems*, 34(5): 409-423

Gorsevski P. V, Gessler P. E, Jankowski P, 2010. A fuzzy *k*-means classification and a Bayesian approach for spatial prediction of landslide hazard. In Fischer MM and Getis A (eds), *Handbook of Applied Spatial Analysis*, Springer, pp. 653-684

Morris, A., Jankowski, P., Bourgeois, B.S., Petry, F.E. 2010. Decision Support Classification of Geospatial and Regular Objects Using Rough and Fuzzy Sets. *Uncertainty Approaches for Spatial Data Modeling and Processing: A Decision Support Perspective*. Eds. Kacprzyk, J., Yazici, A., Petry, F.E. Springer-Verlag, Berlin, pp.3-8.

Gorsevski P.V, Jankowski P. 2010. An optimized solution of multi-criteria evaluation analysis of landslide susceptibility using fuzzy sets and Kalman filter. *Computers and Geosciences*, 36: 1005-1020.

Jankowski, P. 2010. Geographic Information Systems. In B.Warf, editor, *Encyclopedia of Geography*. Los Angeles: SAGE, p.1232

Jankowski, P., 2009. Towards participatory geographic information systems for community-based environmental decision making, *Journal of Environmental Management*, vol. 90, 1966-1971.

Andrienko, G., Andrienko, N., Jankowski, P., Kraak, M-J. 2009. Special Issue: Geospatial Visual Analytics. *Cartography and Geographical Information Science*, 36(3): 223-224.

Ligmann-Zielinska, A., Jankowski, P. 2008. A Framework for Sensitivity Analysis in Spatial Multiple Criteria Evaluation, Lecture Notes in Computer Science No. 5266, Eds. T.J., Cova, H.J. Miller, K. Beard, A.U. Frank, Proceedings of 5th International Conference, GIScience 2002, Park City, Utah, USA, September 2008, Springer Verlag, Berlin-Heidelberg, p.217-233.

Owen, A, Jankowski, P, Williams, B., Wulfhorst, J.D. 2008 Improving public participation in resource protection: Case studies on north-central Idaho. *Journal of Environmental Policy & Planning*, 10(3): 255-269.

Jankowski, P., Ligmann-Zielinska, A., Swobodzinski, M. 2008. Choice Modeler: A Web-based Spatial Multiple Criteria Evaluation Tool. *Transaction in GIS*, 12(4): 541-561.

Gorsevski PV, Jankowski P. 2008. Discerning landslide susceptibility using rough sets. *Computers, Environment and Urban Systems*, 32(1): 53-65.

Ligmann-Zielinska, A., Church, R., Jankowski, P. 2008. Spatial optimization as a generative technique for sustainable multiobjective landuse allocation, *International Journal of Geographical Information Science*, 22(6): 601-622.

Hope, A., Decker, J., Jankowski, P., 2008. Utility of gridded rainfall for IHACRES daily river flow predications in Southern California watershes, *Water Resources*, 44(4): 1-8.

Jankowski, P. and T. Nyerges. 2008. GIS and Participatory Decision Making. *The Handbook of Geographical Information Science*. Edited by John D. Wilson and A. Stewart Fotheringham. Blackwell Publishing, pp.481-493.

Jankowski, P. 2008. Spatial Decision Support Systems. *Encyclopedia of Geographic Information Science*. Edited by Karen Kemp. SAGE, Thousand Oaks, CA, pp.287-90.

Jankowski, P., Tsou, Ming-Hsian., Wright, D.R. 2007. Applying Internet Geographic Information System for water quality monitoring, *Geography Compass* 1(6): 1315-1337, on-line version: http://www.blackwell-compass.com/subject/geography/section_home?section=geco-gis
DOI: 10.1111/j.1749-8198.2007.00065.x

Ligmann-Zielinska, A, Jankowski, P. 2007. Agent-based models as laboratories for spatially explicit planning policies, *Environment and Planning B*: 34(2), p.316-335

Andrienko, G., Andrienko, N., Jankowski, P., Keim, D., Kraak, M-J., MacEachren, A., and S. Wrobel. 2007. Geovisual Analytics for Spatial Decision Support: Setting the Research Agenda. *International Journal of Geographical Information Systems*, 21(8): 839-857

Jankowski, P. 2007. A Rough Set-Based Approach to Handling Uncertainty in Geographic Data Classification. In: A. Moris and S. Kokhan (eds.), *Geographic Uncertainty in Environmental Security*. Springer Verlag, Berlin, pp. 75-87.

Owen, A, Jankowski, P, Williams, B. 2006. Spatial Data for Water Resource Protection: Field Study on a North-Central Indian Idaho Reservation. *Journal of Environmental Assessment Policy and Management*, 8(4), pp. 431-450

Nyerges, T., P. Jankowski, K. Ramsey and D. Tuthill, 2006. Collaborative Water Resource Decision Support: Results of a Field Experiment, *Annals of the Association of American Geographers*, 96(4): 699-725

Nyerges, T., Brooks, T., Jankowski, P., Rutherford, G.S., and Young, R. 2006. Web portal implementation to support public participation in transportation decision making. *ACM International Conference Proceedings Series*, Vol. 151: 67-68

Gorsevski PV, Jankowski P, Gessler PE. 2006. A heuristic approach for mapping landslide hazard by integrating fuzzy logic with analytic hierarchy process. *Control and Cybernetics* 35(1): 121-146

Jankowski, P., T. Nyerges, S. Robischon, K. Ramsey and D. Tuthill, 2006. Design Consideration and Evaluation of a Collaborative, Spatio-Temporal Decision Support System, *Transactions in GIS*, 10(3): 335-354

Jankowski, P. 2006. Integrating GIS and Multiple Criteria Decision Making Methods: Ten Years After. *IJGIS Classics*, Editor: Peter Fisher, Taylor & Francis Group, Boca Raton, pp. 265-296.

Jankowski, P. and M. Stasik. 2006. An Experimental Study Using SDS Tools for a Participatory Approach to Local Land Use Planning. *Collaborative Geographic Information Systems*, Editors: Shivanand Balram and Suzanna Dragicevic. Hershey: Idea Group Publishing, pp.150-166.

Gorsevski P.V., Jankowski P, Gessler P.E. 2005. Spatial prediction of landslide hazard using fuzzy k-means and Dempster-Shafer theory. *Transactions in GIS*, 9(4): 455-474

Morris, A. and P. Jankowski. 2005. Spatial Decision Making Using Fuzzy GIS. *Fuzzy Modeling with Spatial Information for Geographic Problems*, Editors: Maria Cobb, Fred Petry, and Vince Robinson. Springer-Verlag, 2005. 275-298.

Jankowski, P. and T. Nyerges. 2003. Toward a Framework for Research on Geographic Information-Supported Participatory Decision-Making, *URISA Journal Online*, 15(1), <http://www.urisa.org/Journal/APANo1/jankowski.pdf>, accessed on 7/24/03.

Jankowski, P. 2003. Usability of Spatial Decision Support Tools for Collaborative Water Resource Planning. Eds. C. Stephanidis and J. Jacko, Proceedings of the 10th International Conference on Human-Computer-Interaction, HCI International, Crete, Greece, 22-27 June 2003. London: Lawrence Erlbaum and Associates, pp.1223-1227

CURRICULUM VITAE

Name: Pascale Joassart-Marcelli

Rank: Associate Professor

Education: B.A. Economics (1991), FUNDP, Namur, Belgium
M.A. Economics (1992), FUNDP, Namur, Belgium
Ph.D. Political Economy and Public Policy (1999), USC, Los Angeles, CA

Academic Appointments:

San Diego State University, Geography, Associate Professor, 2009-present
San Diego State University, Geography, Assistant Professor, 2007-2009
University of Massachusetts Boston, Economics and Policy Studies, Asst. Professor, 2002-07

Honors and Awards:

President Leadership Fund Award, 2011-2012, San Diego State University,
Visiting Fellow, 2004-06, Joint Center for Housing Studies, Harvard University
Post-doctoral Fellowship, 2004-05, Urban Scholars, National Academies and US Department
of Housing and Urban Development
President
Post-doctoral Fellowship, 2001-02, National Science Foundation

Professional Activities:

Reviewer: Urban Affairs Review, Urban Geography, Environment and Planning B, Nonprofit
and Voluntary Sector Quarterly, Social Science Research, Journal of Policy History.

Participation in

Campus Governance:

Co-Chair and Undergraduate Adviser, Urban Studies Program, SDSU (2009-present)
Senator for the College of Arts and Letters, SDSU University Senate (2010-2012)
Research Council, SDSU (2011-present)
Research Committee, College of Arts and Letters, SDSU (2010-11)
Senator, University of Massachusetts-Boston Academic Senate (2005-07)

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications:

1) **Total number of scholarly publications:** 24 (since 2002)

2) **Five most significant articles or books:**

Pascale Joassart-Marcelli, Jennifer Wolch and Juliet Musso. 2005. Fiscal Consequences of Concentrated Poverty in a Metropolitan Region. *The Annals of the Association of American Geographers* 95(2): 336-356.

Enrico Marcelli, Colin Williams, and Pascale Joassart-Marcelli. 2010. *Informal Work in Developed Nations*, Edited Volume. London: Routledge.

Pascale Joassart-Marcelli. 2012. For Whom and For What? An Investigation of the Roles of Nonprofits as Providers to the Neediest. Chapter 19 in L. Salamon (Ed.), *The State of Nonprofit America*. Washington, DC: The Brookings Institution Press. Forthcoming.

Pascale Joassart-Marcelli. 2009. The Spatial Determinants of Wage Inequality: Evidence from Recent Latina Immigrants in Southern California. *Feminist Economics*. 15(2): 33-72.

Pascale Joassart-Marcelli. 2011. Leveling the Playing Field? Urban Disparities in Funding for Local Parks and Recreation. *Environment and Planning A*.

3) **All scholarly publications appearing since 2002:**

Pascale Joassart-Marcelli. 2012. For Whom and For What? An Investigation of the Roles of Nonprofits as Providers to the Neediest. Chapter 19 in L. Salamon (Ed.), *The State of Nonprofit America*. Washington, DC: The Brookings Institution Press. Forthcoming.

Pascale Joassart-Marcelli. 2011. "Negotiating Social, Emotional, and Legal Boundaries: Undocumented Immigrants and the Everyday Fight to Stay Put." In G. H. Curti, J. Craine, and S. Aitken (Eds.). *The Fight to Stay Put: Social Lessons through Media Imaginings of Urban Transformation and Change*. Wiesbaden: University of Mainz and Franz Steiner Verlag. Forthcoming.

Pascale Joassart-Marcelli, Jennifer Wolch, and Zia Salim. 2011. Building the Healthy City: The Role of Nonprofits in Creating Active Urban Parks. *Urban Geography* 32(5): 682-711.

Enrico Marcelli, Colin Williams, and Pascale Joassart-Marcelli. 2010. *Informal Work in Developed Nations*. London: Routledge.

Pascale Joassart-Marcelli. 2010. Leveling the Playing Field? Urban Disparities in Funding for Local Parks and Recreation. *Environment and Planning A* 42(5): 1174-1192.

Nicholas Dahman, Jennifer Wolch, Pascale Joassart-Marcelli, Kim Reynolds, and Michael Jerrett. 2010. The Active City: Recreation Programs, Public Health and Environmental Justice. *Health and Place* 16: 431-445.

Pascale Joassart-Marcelli. 2010. Poverty. In B. Warf (Ed.), *Encyclopedia of Geography*. Thousand Oaks, CA: Sage Publications.

Pascale Joassart-Marcelli. 2009. Devolution, Deconcentration and the Nonprofit Sector: Rental Housing Subsidies in the Greater Boston Area. *Space and Polity* 13(3): 253-276.

Pascale Joassart-Marcelli and Philip Stephens. 2009. Immigrant Banking and Financial Exclusion in Greater Boston. *Journal of Economic Geography* 10(6): 883-912.

Pascale Joassart-Marcelli. 2009. The Spatial Determinants of Wage Inequality: Evidence from Recent Latina Immigrants in Southern California. *Feminist Economics* 15(2): 33-72.

Pascale Joassart-Marcelli. 2008. Neighborhoods, Mobility, and Wages: Latina Immigrants in Southern California. In Marlene Kim (Ed.), *Race and Economic Opportunity in the Twenty-First Century*. London: Routledge.

Pascale Joassart-Marcelli. 2007. Closing the Gap between Places of Work and Residence: the Role of Rental Assistance Programs in Southern California. *Housing Policy Debate* 18(1): 107-144.

- Pascale Joassart-Marcelli and Alberto Giordano. 2006. Does Local Access to Employment Services Reduce Unemployment? A GIS Analysis of One-Stop Career Centers. *Policy Sciences* 39: 335-359.
- Pascale Joassart-Marcelli, Jennifer Wolch, Alejandro Alonso, and Nathan Sessoms. 2005. Spatial Segregation of the Poor in Southern California: A Multidimensional Analysis. *Urban Geography* 26(7): 587-609.
- Pascale Joassart-Marcelli, Jennifer Wolch and Juliet Musso. 2005. Fiscal Consequences of Concentrated Poverty in a Metropolitan Region. *The Annals of the Association of American Geographers* 95(2): 336-356.
- Pascale Joassart-Marcelli and Juliet Musso. 2005. Municipal Service Provision Choices within a Metropolitan Area. *Urban Affairs Review* 40(4): 492-519.
- Pascale Joassart-Marcelli. 2005. Working Poverty in Southern California: Towards an Operational Measure. *Social Science Research* 34(1): 20-43.
- Daniel Flaming, Brent Haydamack, and Pascale Joassart. 2005. *Hopeful Workers, Marginal Jobs: LA's Off-The-Book Labor Force*, prepared for the Los Angeles Economy Project. Los Angeles: The Economic Roundtable.
- Jennifer Wolch, Pascale Joassart-Marcelli, Manuel Pastor, and Peter Dreier. 2005. Los Angeles: Region by Design. In Janet Rothenberg Pack (Ed.) *SunBelt/Frostbelt: Public Policies and Market Forces in Metropolitan Development*. Washington, DC: Brookings Institution Press.
- Pascale Joassart-Marcelli, Juliet Musso, and Jennifer Wolch. 2004. Federal Expenditures, Intrametropolitan Poverty, and Fiscal Disparities between Cities. In Jennifer Wolch, Manuel Pastor, and Peter Dreier (Eds.), *Up Against the Sprawl: Public Policy and the Making of Southern California*, 195-224. Minneapolis: University of Minnesota Press.
- Pascale Joassart-Marcelli, William Fulton, and Juliet Musso. 2004. Can Growth Control Escape Fiscal and Economic Pressures? Evidence from Southern California Cities before and after the 1990 Recession. In Jennifer Wolch, Manuel Pastor, and Peter Dreier (Eds.), *Up Against the Sprawl: Public Policy and the Making of Southern California*, 255-281. Minneapolis: University of Minnesota Press.
- Steven P. Erie, Gregory Freeman, and Pascale Joassart-Marcelli. 2004. W(h)ither Sprawl? Have Southern California Water Policies Subsidized Suburban Development? In Jennifer Wolch, Manuel Pastor, and Peter Dreier (Eds.), *Up Against the Sprawl: Public Policy and the Making of Southern California*, 45-77. Minneapolis: University of Minnesota Press.
- Pascale Joassart-Marcelli and Jennifer Wolch. 2003. The Intrametropolitan Geography of Poverty and the Nonprofit Sector in Southern California. *Nonprofit and Voluntary Sector Quarterly* 32(1): 70-96.
- Jennifer Wolch, Pascale Joassart-Marcelli and Juliet Musso. 2003. Inner-City's Catch-22. *Los Angeles Times*, Editorial, M2, July 27.
- Pascale Joassart-Marcelli and Daniel Flaming. 2002. *Workers without Rights: The Informal Economy in Los Angeles*. Los Angeles: The Economic Roundtable.

CURRICULUM VITAE

Name: Arielle Levine

Rank: Assistant Professor

Education: PhD, 2006, University of California, Berkeley; BA, Geological and Geophysical Sciences, Princeton University

Academic Appointments: 2011, Assistant Professor, San Diego State University; 2006-2010, Social Research Project Manager, Joint Institute for Marine and Atmospheric Research, Research Corporation of the University of Hawaii

Honors and Awards: 2001, Student Paper Award, AAG Cultural and Political Ecology Specialty Group, AAG Annual Meeting; 2004 Student Paper Presentation Award, AAG Marine and Coastal Specialty Group, AAG Annual Meeting

Professional Activities: Science Advisor, NOAA Coral Reef Conservation Program; Hawaii Fisheries Local Action Strategy Advisory Board

Participation in Campus Governance:

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications:

Total: 16

Five most significant publications:

Levine, Arielle (2007) Staying Afloat: State Agencies, Local Communities, and International Involvement in Marine Protected Areas in Zanzibar, Tanzania. *Conservation and Society*: 5: 562–585.

Levine, Arielle (2002) Convergence or Convenience: International Development NGOs and Conservation Assistance in Tanzania. *World Development*: 30:6 1043-1055. California.

Levine, Arielle and Geoffrey Wandesforde-Smith. (2004) Wildlife, Markets, States, and Communities in Africa: Looking Beyond the Invisible Hand. Guest editors' introduction to special issue of the *Journal of International Wildlife Law and Policy*: 7: 135–142.

Levine, Arielle (2004) Local Responses to Marine Conservation in Zanzibar, Tanzania. *Journal of International Wildlife Law and Policy*: 7: 183-202.

Wandesforde-Smith, Geoffrey, Nicholas S.J. Watts, Arielle Levine (2010) Wildlife Conservation and Protected Areas: Darwin, Marx, and Modern Science in the Search for Patterns that Connect. *Journal of International Wildlife Law and Policy*. 13:4. p. 357 – 374.

Other publications (2005 – present):

Peer-Reviewed Publications

Armstrong, Karen, David Herdrich, Arielle Levine (2010) Historic fishing methods in American Samoa. *NOAA Technical Memorandum*. NOAA-TM-NMFS-PIFSC-23, 70 p. + Appendices.

Levine, Arielle, and Stewart Allen (2009) American Samoa as a Fishing Community. *NOAA Technical Memorandum* NOAA-TM-NMFS-PIFSC-19.

Levine, Arielle (2006) Local Responses to Marine Conservation in Zanzibar, Tanzania. University of California Global, Area, and International Archive. *California Digital Library*.

Reports

Loper, Chrity and Arielle Levine (2010) NOAA Coral Reef Conservation Program Social Science Strategy: 2010-2015.

Fesenmyer, Kurt., Arielle Levine, and Reese Neumann (2005) *Channel Islands National Park Business Plan*. National Park Service.

Manuals and Guides

Wongbusarakum, Supin, Robert Pomeroy, Christie Loper, C. Vieux, Mike Guilbeaux, Arielle Levine, Christopher Bartlett. 2008. SEM-Pasifika: *Socioeconomic Monitoring Guidelines for Coastal Managers in Pacific Island Countries*. Secretariat of the Pacific Regional Environmental Programme. <http://www.reefbase.org/socmon>.

Book Reviews

Levine, Arielle (2006) Review of Christine Walley. Rough Waters: Nature and Development in an East African Marine Park. *Journal of International Wildlife Law and Policy*: 9:1.

Documentary Video

Palolo: The cultural and environmental significance of American Samoa's Marine Worm. 2008. Arielle Levine, Producer, Editor, Scripting. Fred Ahoia, Director, Editor. Copyright: Pacific Islands Fisheries Science Center and American Samoa Department of Marine and Wildlife Resources. Rootz Island Productions.

ABBREVIATED CURRICULUM VITAE

JOHN F. O'LEARY

October 2011

BIOGRAPHICAL DATA

Address: Department of Geography
San Diego State University
San Diego, CA 92182-0381
(619) 594-5511/FAX (619) 594-4938
e-mail: oleary@mail.sdsu.edu

EDUCATION

Ph.D. -1984, in Geography from the University of California, Los Angeles, Supervisor:
J.D. Sauer. Dissertation title: '*Environmental Factors Influencing Postburn
Vegetation in a Southern California Shrubland.*' Fields of specialization are
biogeography, physical geography. Minor field: Biology.
M.A. -1976, University of California, Los Angeles. Geography major.
A.B. (Honors) 1971, University of California, Riverside. Geography major.

PROFESSIONAL EXPERIENCE

1995-2011 -Professor, Department of Geography, San Diego State University.
2004-2007 -Chair, Department of Geography, San Diego State University
1989-95 -Associate Professor, Department of Geography, San Diego State University.
1987-89 -Assistant Professor, Department of Geography, San Diego State University.
1985-87 -Lecturer, Department of Geography, San Diego State University.
1984-85 -Environmental Coordinator, U.S. Army Corps of Engineers, Los Angeles District.
1982-85 -Lecturer, Department of Geography, California State University, Northridge.
1977-82 -Research Associate, Department of Geography, UCLA.
1976-79 -Teaching Associate, Department of Geography, UCLA.
1976 -Instructor, Department of Earth Sciences, East Los Angeles College.
1975 -Research Assistant, School of Architecture and Urban Planning, UCLA.

ACADEMIC AWARDS AND HONORS (2002-2011)

2008 -Phi Beta Kappa Honor Society, Honorary Member, SDSU Chapter
2002-03 -SDSU Senate Excellence in Teaching Award

COURSES TAUGHT

San Diego State University, Department of Geography: Undergraduate courses: Honors
Physical Geography; Principles of Physical Geography; Geography of Natural Vegetation;
Mapping and Analysis of Vegetation; Regional Climatology; Field Geography. Graduate
seminars: Teaching of College Geography (co-taught); Environmental Impact Assessment;
Human Impacts Upon Mediterranean-type Ecosystems; California Ecosystems.

California State University, Northridge, Department of Geography: Undergraduate courses:
Introduction to Weather; The Physical Environment.

John F. O'Leary

East Los Angeles College, Department of Earth Sciences: Introduction to Earth Sciences.

THESIS MEMBERSHIPS (2002-2011)

Doctoral Degree. Chair (2), Outside Member (1) Robert Taylor (UCSB).

Master's Degree. Chair (5)

Second Memberships (14)

Third Memberships (25 in Biology, 1 in Public Health)

PROFESSIONAL ACTIVITIES (2002-2011)

Advisory Positions Held

- 2008 -Member, SANDAG Vegetation Mapping Committee
- 2008 -Crestridge Ecological Reserve Planning Committee
- 2002 -Member, Workshop Committee for the revision of the *Manual of California Vegetation*, California Department of Fish and Game.

Service to Other Universities

- 2010 -Provided an external review of a faculty member considered for promotion (Department of Geography, University of Oklahoma)
- 2010 -Provided an external review of a faculty member considered for promotion (Department of Geography, University of Northern Illinois)
- 2004 -Provided an external review of a faculty member considered for promotion (Department of Geography, University of Colorado)
- 2002 -Provided an external evaluation of an adjunct faculty applicant (Department of Biology, UCLA)

Association of Pacific Coast Geographers (APCG) Service

- 2007-2009 -APCG Local Arrangements Committee
- 2009 -Organized and led a day-long field trip as part of the APCD meetings in San Diego

U.S. Regional Association of the International Association for Landscape Ecology

- 2006 - Local Arrangements Committee, U.S. Regional Association of the International Association for Landscape Ecology
- 2006 -Organized, wrote a field trip guide, and led a day-long field trip on the natural vegetation of San Diego County as part of the US-IALE meetings in San Diego.

Manuscript Reviews for Journals (2002-2011)

- 2010 -*Plant Ecology*
- 2008 -*Geography Compass*
- 2007 -*Manual of California Vegetation*

John F. O'Leary

2006 -*International Journal of Wildland Fire*
2005 -*The Southwestern Naturalist*
2003 -*The Professional Geographer; Madroño*

PUBLICATIONS (2002-2011)

Refereed Journal Articles

- Chaison, C.L., Stow, D.A., O'Leary, J.F., and J. Franklin. 2011. Influence of short-interval fire occurrence on post-fire recovery of fire prone shrublands in California, USA. *International Journal of Wildland Fire* (conditionally accepted pending revision).
- O'Leary, J.F. and W.R. Bredemeyer. 2011. Postfire response of southern arroyo willow riparian forest and southern willow scrub in San Diego County, California. *The Southwestern Naturalist* (in press).
- Schmalbach, H.L., J. Franklin, and J.F. O'Leary. 2007. Patterns of post-fire regeneration in a southern California mixed chaparral community. *Madroño* 54:1-12.
- Tiegs, S.D., O'Leary, J.F., Pohl, M.M., and C.L. Munill. 2005. Flood disturbance and riparian species diversity on the Colorado River Delta. *Biodiversity and Conservation*. 14:1175-1194.
- Wells, M.L., O'Leary, J.F., Franklin J., Michaelsen, J., and D. McKinsey. 2004. Variations in a regional fire regime related to vegetation type in San Diego County, California. *Landscape Ecology*. 19:139-152.
- Stow, D., Coulter, L., Johnson, A., Peterson, A., and J. O'Leary. 2004. Monitoring detailed land-cover changes in shrubland habitat reserves using multi-temporal IKONOS data. *Geocartico International*. 19:95-102.
- Franklin, J., A.S. Syphard, D.J. Mladenoff, J.S. He, D.K. Simons, R.P. Martin, D. Deutschman, and J.F. O'Leary. 2001. Simulating the effects of different fire regimes on plant functional groups in Southern California. *Ecological Modelling*. 142:261-283.

Manuscripts in Review/Preparation

- O'Leary, J.F. and W.R. Bredemeyer. 2011. Recovery of California sycamore woodland following an intense wildfire in San Diego County, California. Submitted (3/16/11) to *American Midland Naturalist*.
- O'Leary, J.F., Bredemeyer, W.R., and E. Fallon . 2011. Recovery of a riparian ecosystem following an intense wildfire in southern California, USA. Submitted to *Acta Oecologia* (4/27/11).
- O'Leary, J.F, Fallon, E. and W.R. Bredemeyer. 2011. Influence of an intense wildfire on plant diversity and compositional patterns in a riparian forest ecosystem in southern California, USA. Submitted (6/28/11) to *Biodiversity and Conservation*.

John F. O'Leary

O'Leary, J.F., and E. Fallon. 2011. Influence of an intense wildfire on plant diversity patterns in California sycamore woodland in San Diego County, California, USA. Manuscript is 90% completed. To be submitted (November, 2011) to the *International Journal of Biodiversity and Conservation*.

Wells, M.L. and J.F. O'Leary. 2011. The resilience of *Pinus coulteri* to human-caused variation in fire regimes. To be submitted to the *Journal of Vegetation Science*.

Non-Refereed Publications (2002-2011)

Bohr, G.S. and J.F. O'Leary. 2011. Physical Geography 101 Laboratory Manual. 105 pgs. Montezuma Publishing, San Diego State University.

O'Leary, J.F. 2005. Vegetation of the Tijuana River Watershed. *In: R.D. Wright & R. Vela (eds.), Tijuana River Watershed Atlas*. P. 14-15. San Diego State University Press, Institute for Regional Studies of the Californias. San Diego, CA. 38 pp.

O'Leary, J.F. 2005. Vegetation: Major Communities. *In: P. Ganster & R. Wright (eds.), Tijuana River Watershed Atlas*. p. 14-16. San Diego State University Press, Institute for Regional Studies of the Californias. San Diego, CA. 37 pp.

Technical Reports

I authored/co-authored nine technical reports from 2002-2011)

PROFESSIONAL PRESENTATIONS (2002-2011)

I have presented or co-presented 12 papers at various national meetings and international Symposia from 2002-2011).

CURRICULUM VITAE

Name: André Skupin

Rank: Associate Professor

Education: PhD Geography, 1998, SUNY at Buffalo
Dipl.-Ing. Cartography, 1992, TU Dresden, Germany

Academic Appointments:

San Diego State University	Associate Professor	2007-present	Geography
San Diego State University	Assistant Professor	2005-2007	Geography
University of New Orleans	Associate Professor	2004-2005	Geography
University of New Orleans	Assistant Professor	1998-2004	Geography
University of New Orleans	Instructor	1997-1998	Geography

Participation in Campus Governance:

- Aug 2011 – current: PhD Program Advising Committee, Dept. of Geography, SDSU
- Apr 2010 – current: Chair, Policy Advisory Committee, Dept. of Geography, SDSU
- Mar 2009 – current: Program Manager, ESRI Dev. Center, Dept. of Geography, SDSU
- Fall 2008 – current: Chair, Computing Committee, Department of Geography, SDSU
- Fall 2005 – current: Computing Committee, Department of Geography, SDSU
- Fall 2005 – current: Master's Program Advising Committee, Dept. of Geography, SDSU
- Fall 2005 – current: Lead Delegate of SDSU to Univ. Consortium for Geogr. Inf. Science
- Apr 2010 – Mar 2011: Personnel Committee, Dept. of Geography, SDSU
- Fall 2008 – Spring 2009: Chair, Personnel Committee, Department of Geography, SDSU
- Fall 2006 – Spring 2008: Research Committee, College of Arts and Letters, SDSU
- Fall 2005 – Spring 2010: Student Outcomes Assessment Committee, Department of Geography, SDSU

Professional Activities:

- Nov 2009 – current: Science Advisor, Habitat Journey project, San Diego Natural History Museum
- Aug 2009 – current: Partner, Advisory Panel Member, and SDSU Geography Partnership Coordinator, World Resources Simulation Center (WRSC)
- Jan 2009 – current: Advisory Panel, San Diego Association of Governments (SANDAG) Activity-Based Transportation Model Development
- Summer 2006 – current: Membership Committee, University Consortium for Geographic Information Science (UCGIS)
- April 2005 – current: Advisory Board, *Places & Spaces: Cartography of the Physical and Abstract* (traveling exhibit of cartographic and knowledge domain maps)
- June 2002 – current: Corresponding Member, Commission on Visualization and Virtual Environments, International Cartographic Association.
- Mar 2011: Jury Member, MDTs11 Collaborative Challenge, Paris, France

- Spring 2011: Program Committee, 15th International Conference on Information Visualization (iV11), London, UK
- Sep 2010 – Feb 2011: Program Committee, GeoViz Hamburg 2011, Workshop organized by HafenCity University Hamburg and International Cartographic Association
- Jun 2009: Invited Participant, Designing the WRSC Prototype, Roundtable event organized by Global Energy Network Initiative (GENI), Oceanside, California
- Mar 2009: Invited Participant, VisMaster Expert Workshop, Hamburg, Germany
- Fall 2007: International Program Committee, Virtual Geographic Environments – Int. Conference on Developments in Visualization and Virtual Environments in Geographic Information Science, The Chinese University of Hong Kong
- Jul 2007: Invited Participant, Visualization Summit – Workshops on Geovisualization and Visualization Software Infrastructure, Zurich, Switzerland
- Summer 2006 – Summer 2009: Chair, Membership Committee, University Consortium for Geographic Information Science (UCGIS).
- Winter 2005/06: Program Committee, Diagrams 2006 - Fourth International Conference on the Theory and Application of Diagrams, Stanford University.
- April 2005: Judge, Student Illustrated Paper Competition, AAG Annual Meeting, Denver.
- April 2005: Co-Organizer/Chair, Sessions on Mapping Humanity's Knowledge and Expertise in the Digital Domain, AAG Annual Meeting, Denver.
- Summer 2004: Reviewing Editor, Special Issue of *Journal of Digital Libraries*.
- Summer 2004: Program Committee, Third International Symposium on Knowledge Domain Visualization, London, United Kingdom.
- Summer 2003: Program Committee, International Workshop on Information Visualization Interfaces for Retrieval and Analysis, Houston, Texas.
- March 2003: Co-Organizer/Chair, Spatialization Sessions, AAG Annual Meeting, New Orleans.

Publications:

- Skupin, A. and Esperbé, A (2011) An Alternative Map of the United States Based on an n-Dimensional Model of Geographic Space. *Journal of Visual Languages and Computing*. 22(4): 290-304.
- Boyack, K.W., Newman, D., Duhon, R.D., Klavans, R., Patek, M., Biberstine, J.R., Schijvenaars, B., Skupin, A., Ma, N. and Börner, K. (2011) Clustering More Than Two Million Biomedical Publications: Comparing the Accuracies of Nine Text-Based Similarity Approaches. *PLoS ONE*. 6(3): e18029.
- Schmidt, C.R., Rey, S.L., and Skupin, A. (2011) Effects of Irregular Topology in Spherical Self-Organizing Maps. *International Regional Science Review*. 34(2): 215-229.
- Skupin, A. (2011) Mapping Text. *Glimpse / the art + science of seeing*. 3 (7, Winter): 69-77.
- Kolovos, A., Skupin, A., Jerrett, M., and Christakos, G. (2010) Multi-Perspective Analysis and Spatiotemporal Mapping of Air Pollution Monitoring Data. *Environmental Science & Technology*. 44(17): 6738-6744.

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- Skupin, A. (2009) Discrete and Continuous Conceptualizations of Science: Implications for Knowledge Domain Visualization. *Journal of Informetrics*. 3 (3): 233-245.
- Skupin, A. and Skupin, M. (2009) On Written Language in Works of Art and Cartography. In: Cartwright, W., Gartner, G., and Lehn, A. (Eds.) *Cartography and Art*. Berlin/Heidelberg: Springer. 207-222.
- Burns, R. and Skupin A. (2009) Visualization of Attribute Spaces Involving Places, People and Utterances. *Proceedings of 24th International Cartographic Conference, Santiago, Chile November 15-21, 2009*. (CD-ROM)
- Skupin, A. and Skupin M. (2008) Partners in ConText: On Written Language in Works of Art and Cartography. *Symposium "Cartography and Art – Art and Cartography," February 1-2, 2008, Vienna, Austria*. (CD-ROM)
- Skupin, A. and Esperbé, A. (2008) Towards High-Resolution Self-Organizing Maps of Geographic Features. In: Dodge, M., Turner, M., and Derby, M. (Eds.) *Geographic Visualization: Concepts, Tools and Applications*. Chichester, England: John Wiley & Sons, Ltd. 159-181.
- Skupin, A., and Fabrikant, S.I. (2008) Spatialization. In: Wilson, J., and Fotheringham, S. (Eds.) *The Handbook of Geographical Information Science*. Blackwell Publishing, Ltd. 61-79.
- Agarwal, P., and Skupin, A. (Eds.) (2008) *Self-Organising Maps: Applications in Geographic Information Science*, Chichester, England: John Wiley & Sons, Ltd.
- Skupin, A., and Agarwal, P. (2008) Introduction: What is a Self-Organizing Map? In: Agarwal, P., and Skupin, A. (Eds.) *Self-Organising Maps: Applications in Geographic Information Science*, Chichester, England: John Wiley & Sons, Ltd. 1-20.
- Skupin, A. (2008) Visualizing Human Movement in Attribute Space. In: Agarwal, P., and Skupin, A. (Eds.) *Self-Organising Maps: Applications in Geographic Information Science*, Chichester, England: John Wiley & Sons, Ltd. 121-135.
- Skupin, A. and Börner, K. (Eds.) (2007) Mapping Humanity's Knowledge and Expertise in the Digital Domain. Special Theme Issue of *Environment and Planning B*. 34 (5, September): 765-838.
- Leitner, M. and Skupin, A. (Eds.) (2007) Cartography 2007: Reflection, Status, and Prediction (U.S. National Report to the International Cartographic Association). Special Theme Issue of *Cartography and Geographic Information Science*. 34 (2, April): 73-171.
- Skupin, A. (2007) Spatialization. In: Kemp, K. (Ed.) *Encyclopedia of Geographic Information Science*, Sage Publications, Inc. 418-422.
- Skupin, A. (2007) Where do you want to go today [in attribute space]? in: Miller, H. (Ed.) *Societies and Cities in the Age of Instant Access*. Springer. 133-149.

- Ebinger, S. and Skupin, A. (2007) Comparing Different Forms of Interactivity in the Visualization of Spatio-Temporal Data. In: Fuhrmann, S. (Ed.) Special Issue of *Kartographische Nachrichten*. 57 (2, April): 63-70.
- Lacayo, M. and Skupin, A. (2007) A GIS-based Visualization Module for Self-Organizing Maps. **Proceedings of 23rd International Cartographic Conference, Moscow, Russia, August 4-10, 2007**. (CD-ROM)
- Skupin, A., and Hagelman, R. (2005) Visualizing Demographic Trajectories with Self-Organizing Maps. *GeoInformatica*. 9(2): 159-179.
- Fabrikant, S., and Skupin, A. (2005) Cognitively Plausible Information Visualization. In: Dykes, J., MacEachren, A., and Kraak, M.J. (Eds.), *Exploring Geovisualization*. Amsterdam: Elsevier. 667-690.
- Skupin, A., and de Jongh, C. (2005) Visualizing the ICA – A Content-based Approach. **Proceedings of 22nd International Cartographic Conference, A Coruña, Spain, July 9-16, 2005**. (CD-ROM)
- Skupin, A. (2004) A Picture from a Thousand Words. *Computing in Science and Engineering*. 6 (5): 84-88.
- Skupin, A. (2004) The World of Geography: Visualizing a Knowledge Domain with Cartographic Means. *Proceedings of the National Academy of Sciences*. 101 (Suppl. 1): 5274-5278.
- Skupin, A., and Fabrikant, S. (2003) Spatialization Methods: A Cartographic Research Agenda for Non-Geographic Information Visualization. *Cartography and Geographic Information Science*. 30 (2): 99-119.
- Skupin, A. (2003) A Novel Map Projection Using an Artificial Neural Network. **Proceedings of 21st International Cartographic Conference, Durban, South Africa, August 10-16**: 1165-1172. (CD-ROM)
- Skupin, A., and Hagelman, R. (2003) Attribute Space Visualization of Demographic Change. In: Hoel, E., and Rigaux, P. (Eds.) **Proceedings of the Eleventh ACM International Symposium on Advances in Geographic Information Systems, New Orleans, Louisiana, November 7-8**. New York: ACM Press. 56-62. (acceptance rate: 26%)

CURRICULUM VITAE

Name: Douglas A. Stow

Rank: Professor

Education:

BA Geography, 1976, University of California, Santa Barbara (UCSB)

MA Geography, 1978, UCSB

PhD Geography, 1985, UCSB

Academic Appointments:

1978-1982	Lecturer	Geography, UCSB
1978-1982	Staff Research Associate	Geography Remote Sensing Unit, UCSB
1983-1987	Assistant Professor	Geography, San Diego State University (SDSU)
1987-1991	Assistant Professor	Geography, SDSU
1991-present	Professor	Geography, SDSU
1992-1996	Department Chair	Geography, SDSU

Honors and Awards (selected):

1996 SDSU Alumni Outstanding Faculty Award for the University;
2004 AAG Remote Sensing Specialty Group, Outstanding Contributions in Remote Sensing Award
2004 SDSU President's Top 25 Award
2008 Phi Beta Kappa – SDSU Faculty Lecturer
2009 SDSU Presidential Leadership Award

Professional Activities (selected):

2003 AAG-RSSG Annual Meeting Program Chair
2004 - 2008 Chair, AAG-RSSG Awards Committee
2008 - 2010 Co-Chair and Student Volunteer Coordinator, ASPRS Annual Meeting, San Diego
2005 - present Editorial Board Member, *GIScience and Remote Sensing*
2009 - present Associate Editor, *International Journal of Remote Sensing*

Participation in Campus Governance (selected):

Department of Geography: Fall 1998 - present, Doctoral Program Adviser; Fall 1986 - present, Co-director, Center for Earth Systems Analysis Research; Fall 1985 - Spring 1987, Fall 1988 - Spring 1989, chair Fall 1988 - Spring 1989; Fall 2002 – 2004, Policy Advisory Committee (elected).

College of Arts & Letters: Fall 2006-2008 Sabbatical and Professional Leaves Committee, 2006-2008. Personnel Committee (Promotions and Tenure), 1991-92, 2010-11.

SDSU: AY 2002-03, Chair, Associate Vice President of Research and Dean of Graduate Studies Search Committee; 2000 – 2006, Chair, Intercollegiate Athletics Authority; Jan. 2011 - present, Special Assistant for Enrollment Management, Academic Affairs.

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications:

Total number of scholarly publications: 121 refereed journal articles and book chapters; 42 conference proceedings papers

Five most significant articles:

- Stow, D.A., 1987. Numerical Derivation of Hydrodynamic Surface Flow Fields from Time Sequential Remotely Sensed Data, *Remote Sensing of Environment*, 23(1): 1-22.
- Stow, D., 1999. Reducing Misregistration Effects for Pixel-level Analysis of Land Cover Change, *Remote Sensing Letters - International Journal of Remote Sensing*, 20: 2477-2483.
- Stow, D., L. Coulter, and Sebastian Baer, 2003. Frame Center Matching Approach to Registration for Change Detection, *International Journal of Remote Sensing*, 24: 3873-3879.
- Stow, D., Y. Hamada, L. Coulter, and Z. Anguelova, 2008. Monitoring Shrubland Habitat Changes Through Object-based Change Identification with Airborne Multi-spectral Imagery, *Remote Sensing of Environment*. 112: 1051-1061.
- Stow, D., S. Toure, C.L. Lippitt, C.D. Lippitt, and C.-R. Lee, in press. Frequency Distribution Signatures and Classification of Within-object Pixels, *International Journal of Applied Earth Observation and Geoinformation*.

Selected scholarly publications within the past nine years, 2002 to present (selected):

- Stow, D. and D. Chen, 2002. Sensitivity of Multitemporal NOAA-AVHRR Data for Detecting Land Cover Changes, *Remote Sensing of Environment*, 80: 297-307.
- Chen, D. and D. Stow, 2003. Strategies for Integrating Information from Multiple Spatial Resolutions Into Land Use/Cover Classification Routines, *Photogrammetric Engineering & Remote Sensing*, 69: 1279-1287.
- Coulter, L., D. Stow, and S. Baer, 2003. A Frame Center Matching Technique for Precise Registration of Multitemporal Airborne Frame Imagery: Methods and Software Approaches. *IEEE Transactions of Geoscience and Remote Sensing*, 41: 2436-2444.
- Greer, K. and D. Stow, 2003. Vegetation Type Conversion in Los Penasquitos Lagoon, California: An Examination of the Role of Watershed Urbanization, *Environmental Management*, 31: 489-503.
- Hope, A., W. Boynton, D. Stow, and D. Douglas, 2003. NOAA-AVHRR Estimates of Vegetation Production for Three Arctic Tundra Ecosystems, 1989 to 1996. *International Journal of Remote Sensing*, 24: 3413-3425.
- Peterson, S. and D. Stow, 2003. Using a Multiple Endmember Linear Mixture Model to Study Chaparral Regrowth, *International Journal of Remote Sensing*, 24: 4481 – 4504.
- Phinn, S., D. Stow, J. Franklin, L. Mertes, and J. Michaelsen, 2003. Remotely Sensed Data for Ecosystem Analyses: Combining Hierarchy Theory and Scene Models, *Environmental Management*, 31: 429–441.
- Rogan, J., J. Miller, D. Stow, J. Franklin, L. Levien, and C. Fischer, 2003. Land Cover Change Monitoring in Southern California Using Multitemporal Landsat TM and Ancillary Data, *Photogrammetric Engineering & Remote Sensing*, 69: 793-804.
- Stow, D., A. Hope, L. Coulter, J. Kaiser, D. Service, S. Redlin, K. Schutte and A. Walters, 2003. Image-based Mapping of Irrigated Vegetation in Urban Environment, *Photogrammetric Engineering & Remote Sensing*, 69: 381-290.
- Stow, D., S. Daeschner, A. Hope, D. Douglas, A. Petersen, R. Myneni, L. Zhou, and W. Oechel, 2003. Variability of the Seasonally Integrated Normalized Difference Vegetation Index Across the North Slope of Alaska in 1990s, *International Journal of Remote Sensing*, 24: 1111-1117.
- Chen, D., D. Stow, and P. Gong, 2004. Examining the Effect of Spatial Resolution on Classification Accuracy: An Urban Environmental Case, *International Journal of Remote Sensing*, 25: 2177-2192.
- Kaiser, J. D. Stow, L. Cao, and L. Coulter, 2004. Evaluation of Remote Sensing Technologies for Mapping Trans-border Trails, *Photogrammetric Engineering & Remote Sensing*, 70: 1441-1447.
- Langevin, C. and D. Stow, 2004. Identifying Change in a Dynamic Urban Landscape: A Neural Network Approach to Map Updating, *Progress In Planning*, 61:327-348.

- Stow, D., L. Coulter, A. Johnson, and A. Petersen, 2004. Monitoring Detailed Land-Cover Changes in Shrubland Habitat Reserves Using Multi-temporal IKONOS Data, *Geocarto International*, 19: 95-102.
- Stow, D., A. Hope, D. McGuire, D. Verbyla, J. Gamon, K. Huemmrich, S. Houston, C. Racine, M. Sturm, K. Tape, K. Yoshikawa, L. Hinzman, C. Tweedie, B. Noyle, C. Silapaswan, D. Douglas, B. Griffith G. Jia, H. Epstein, D. Walker, S. Daeschner, A. Petersen, L. Zhou, and R. Myneni, 2004. Remote Sensing of Vegetation and Land-cover Changes in Arctic Tundra Ecosystems, *Remote Sensing of Environment*, 89: 281-308.
- Tarnavsky, E., D. Stow, L. Coulter, and A. Hope, 2004. Spatial and Radiometric Fidelity of Airborne Multispectral Imagery in the Context of Land-cover Change Analyses, *GIScience and Remote Sensing*, 41: 62-80.
- Witztum, E. and D. Stow, 2004. Analyzing Direct Impacts of Recreation Activity on Coastal Sage Scrub Habitat with Very High-Resolution Multi-spectral Imagery, *International Journal of Remote Sensing*, 25: 3477 – 3496.
- Hope, A., R. Engstrom, and D. Stow, 2005. Relationship Between AVHRR Surface Temperature and NDVI in Arctic Tundra Ecosystems, *International Journal of Remote Sensing*, 26: 1771-76.
- Engstrom, R., A. Hope, H. Kwon, D. Stow, and D. Zamolodchikov, 2005. Spatial Distribution of Near Surface Soil Moisture and its Relationship to Microtopography in the Alaskan Arctic Coastal Plain, *Nordic Hydrology*, 36: 219-234.
- Rashed, T., J. Weeks, D. Stow, and D. Fugate, 2005. Measuring Temporal Compositions of Urban Morphology through Spectral Mixture Analysis: Toward a Soft Approach to Change Analysis in Crowded Cities, *International Journal of Remote Sensing*, 26: 699-718.
- Stow, D, Kaiser, J., and Niphadkar, M., 2005. MODIS-derived Visible Atmospheric Resistant Index for monitoring chaparral moisture content, *International Journal of Remote Sensing*, 26: 3867-3873.
- Stow, D., M. Niphadkar, and J. Kaiser, 2006, Time Series of Chaparral Live Fuel Moisture Maps Derived from MODIS Satellite Data, *International Journal of Wildland Fire*, 15: 347-360.
- Weeks, J., A. Hill, A. Getis, and D. Stow, 2006. Ethnic Residential Patterns as Predictors of Intra-Urban Child Mortality Inequality in Accra, Ghana, *Urban Geography*, 27: 526-548.
- Cao, L., D. Stow, J. Kaiser, and L. Coulter, 2007. Monitoring Cross-border Trails Using Airborne Digital Multispectral Imagery and Interactive Image Analysis Techniques, *Geocarto International*, 22:107-125.
- Hamada, Y., D. Stow, L. Coulter, J. Jafolla, and L. Hendricks, 2007. Mapping Tamarisk Species (*Tamarix* spp.) in Riparian Habitats of Southern California Using High Spatial Resolution Hyperspectral Imagery, *Remote Sensing of Environment*, 109: 237-248.
- Stow, D., A. Petersen, J. Rogan, and J. Franklin, 2007. Mapping Burn Severity of Mediterranean Type Vegetation Using Satellite Multispectral Data, *GIScience and Remote Sensing*, 44: 1-23.
- Stow, D., A. Petersen, A. Hope, R., Engstrom, and L. Coulter, 2007. Greenness Trends of Arctic Tundra Vegetation in the 1990s: Comparison of Two Normalized Difference Vegetation Index Data Sets from NOAA Advanced Very High Resolution Radiometer Systems, *International Journal of Remote Sensing*, 28: 4007-4822.
- Stow, D, and M. Niphadkar, 2007. Stability, Normalization and Accuracy of MODIS-derived Estimates of Live Fuel Moisture for Southern California Chaparral, *International Journal of Remote Sensing*, 28: 5175-5182.
- Stow, D., A. Lopez, C. Lippitt, S. Hinton, and J. Weeks, 2007. Object-based classification of residential land use within Accra, Ghana based on QuickBird satellite data, *International Journal of Remote Sensing*, 28: 5167-5173.
- Weeks, J. A. Hill, D. Stow, A. Getis, and D. Fugate, 2007. Can we spot a neighborhood from the air? Defining neighborhood structure in Accra, Ghana, *GeoJournal*, 69:9-22.
- Williams, J., D. Stow, and L. Brower, 2007. The Influence of Forest Fragmentation on the Location of Overwintering Monarch Butterflies in Central Mexico, *Journal of the Lepidopterist's Society*, 61: 90-104.

- Coulter, L. and D. Stow, 2008. Assessment of the Spatial Co-registration of Multitemporal Imagery from Large Format Digital Cameras in the Context of Detailed Change Detection, *Sensors*, 8, 2161-2173.
- Engstrom, R., A. Hope, H. Kwon, and D. Stow, 2008. The Relationship Between Soil Moisture and NDVI for the Coastal Plain of Alaska, *Physical Geography*. 29: 38-53.
- Rogan, J., J. Franklin, D. Stow, J. Miller, C. E. Woodcock and D. A. Roberts, 2008. Mapping land cover modifications over large areas: A comparison of machine learning algorithms, *Remote Sensing of Environment*, 112: 2272-2283.
- Coulter, L. D. Stow, Z. Anguelova, and Y. Hamada, 2009, Monitoring Habitat Preserves in Southern California Using High Spatial Resolution Multispectral Imagery, *Environmental Monitoring and Management*, 152: 343–356.
- Stow D., L. Coulter, and C. Benkleman, 2009. Airborne Digital Multispectral Imaging Sensors, chapter in *Handbook of Remote Sensing*, T. Warner, G. Foody, D. Nellis, eds., Sage, Ch. 11, pp. 151-165.
- Stow, D., 2009. Geographic Object-Based Image Change Analysis, in *Handbook of Spatial Analysis*, M. Fischer and A. Getis, eds., Springer, Berlin, chapter D.3.
- Anguelova, Z., D. Stow, J. Kaiser, P. Dennison, and T. Cova, 2010. Integrating Fire Behavior and Trafficability Models to Assess Fire Danger to Pedestrian Within the San Diego-Mexico Border Zone, *Professional Geographer*, 62: 230-247.
- Blodgett, N., D. Stow, J. Franklin, and A. Hope, 2010. Inferring Behavior of the Catastrophic Cedar Fire from Remotely Sensed Distributions of Unburned Vegetation. *International Journal of Wildland Fire*, 19:415-426.
- Narasimhan, R. and D. Stow, 2010. Daily MODIS Products for Analyzing Early Season Vegetation Dynamics across the North Slope of Alaska. *Remote Sensing of Environment*, 114: 1251-1262.
- Stow, D., 2010, Remote Sensing as a Primary Data Source for Geographic Research, chapter in *Research Methods in Geography*, B. Gomez and J.P. Jones, eds., Wiley-Blackwell, Ch. 10, pp. 155-172.
- Stow, D., C. Lippitt, and J. Weeks, 2010. Geographic Object-based Delineation of Neighborhoods of Accra, Ghana Using QuickBird Satellite Imagery. *Photogrammetric Engineering & Remote Sensing*, 76: 907-914.
- Coulter, L., A. Hope and D. Stow, accepted. Time-Space Radiometric Normalization of TM/ETM Scenes for Land-Cover Change Detection, *International Journal of Remote Sensing*.
- Fitch, D., Stow, D., Hope, A. and Rey, S., 2010. MODIS Vegetation Metrics as Indicators of Hydrological Response in Watersheds of California Mediterranean-type Climate Zones. *Remote Sensing of Environment*, 114: 2513-2523.
- Hamada, Y., D. Stow, and J. Franklin, 2010. Quantifying Biological Integrity of California Sage Scrub Communities Using Plant Life-form Cover. *Journal of Mediterranean Ecology*, 10: 19-32.
- Lathrop, S., D. Stow, 2010. Updating Maps of Foot Trail Networks for the US-Mexico Border Zone Using Semi-automatic Feature Extraction Methods and Very High Resolution Remotely Sensed Imagery. *Journal of Spatial Science*, 55: 81-100.
- Lippitt, C., L. Coulter, J. Bishop, M. Freeman, W. Pang, and D. Stow, 2012. The Effect of Input Data Transformations on Object-based Image Analysis, *Remote Sensing Letters*, 3(1): 21-29.
- Hamada, Y, D. Stow, and D. Roberts, accepted. Estimating Life-form Cover Fractions Within California Sage Scrub Communities Using Remote Sensing. *Remote Sensing of Environment*.
- Stoler, J., D. Daniels, J. Weeks, D. Stow, L. Coulter and B. Finch, accepted, Assessing the Utility of Satellite Imagery with Differing Spatial Resolutions for Deriving Proxy Measures of Slum Presence in Accra, Ghana, *GIScience & Remote Sensing*.
- Weeks, J., A. Getis, D. Stow, A.G. Hill, D. Rain, R. Engstrom, J. Stoler, C. Lippitt, M. Jankowska, A. C. Lopez-Carr, L. Coulter and C. Ofiesh, accepted. Connecting the Dots Between Health, Poverty and Place in Accra, Ghana. *Annals Association of American Geographers*.

CURRICULUM VITAE

Name: Kate Swanson

Rank: Assistant Professor

Education: PhD, 2005, University of Toronto, Canada

Academic Appointments:

2008-present, Assistant Professor, San Diego State University

2005-2008, Postdoctoral Research Fellow, University of Glasgow, U.K.

Honors and Awards:

University of Chile, Santiago. Invited speaker. *Towards an Emerging Geography of Gentrification in the Global South*. Urban Studies Journal Seminar Series organized by Loretta Lees (King's College London), Hyun Bang Shin (London School of Economics), Ernesto Lopez (University of Chile) and Hilda Herzer (University of Buenos Aires). Santiago, Chile, April 26-27, 2012.

Grand Rapids Community College. Distinguished Plenary Speaker at *2012 Race and Ethnicity Conference*. Sponsored by the Association of American Geographers' Visiting Geographical Scientist Program (program sponsors visits by prominent geographers to under-resourced geography departments), March 27-29, 2012.

University of Michigan, Department of Anthropology. Invited Keynote paper: Race, space and the city. Indigenous youth's rural-to-urban migrations and beyond, *Imagining Ecuador* conference, Círculo Micaela Bastidas Phuyuqhawa – Michigan Andeanists. Ann Arbor, Michigan. April 2nd, 2011.

Participation in Campus Governance:

Associate Graduate Faculty – Women's Studies

Associate Faculty – Center for Latin American Studies

Publications:

1) Total number: 14 publications;

2) Top 5 publications:

Swanson, Kate. 2010. *Begging as a Path to Progress: Indigenous Women and Children and the Struggle for Ecuador's Urban Spaces*. Athens, U.S.A: University of Georgia Press.

Swanson, Kate. 2010. 'For every border, there is also a bridge': overturning borders in young indigenous lives. *Children's Geographies*. 8: 429-436.

Swanson, Kate. 2008. Witches, children and Kiva-the-research dog: striking problems encountered in the field. *Area*. 40: 55-64.

Swanson, Kate. 2007. Revanchist urbanism heads south: the regulation of indigenous beggars and street vendors in Ecuador. *Antipode: A Radical Journal of Geography*. 39: 708-728.

Swanson, Kate. 2012. Urban ethnography. Chapter in *Researching the City: A Guide for Students*. Edited by Kevin Ward. London: Sage Press.

3) Scholarly publications:

Articles in Refereed Journals

- Dixon Goerisch, Denise and Kate Swanson. Learning to care: philanthropy, patriotism, and capitalism in the American Girl Scouts (under review at *Social & Cultural Geography*, submitted August 8 2011). (Impact Factor: 1.440)
- Shubin, Sergei and Swanson, Kate. 2010. "I'm an imaginary figure:" unravelling the mobility and exclusion of Scottish Gypsy Travellers. *Geoforum*. 41: 919-929. (Impact Factor: 1.878)
- Swanson, Kate. 2010. 'For every border, there is also a bridge': overturning borders in young indigenous lives. *Children's Geographies*. 8: 429-436. (Impact factor: 1.833)
- Cumbers, Andy, Gesa Helms and Kate Swanson. 2010. Class, agency and resistance in the old industrial city. *Antipode: A Radical Journal of Geography*. 42:46-73. (Impact factor: 1.284)
- Swanson, Kate. 2008. Witches, children and Kiva-the-research dog: striking problems encountered in the field. *Area*. 40: 55-64. (Impact Factor: 1.548)
- Swanson, Kate. 2007. "Bad mothers" and "delinquent children": unravelling anti-begging rhetoric in the Ecuadorian Andes. *Gender, Place and Culture: A Journal of Feminist Geography*. 14: 703-720. (Impact Factor 1.030)
- Swanson, Kate. 2007. Revanchist urbanism heads south: the regulation of indigenous beggars and street vendors in Ecuador. *Antipode: A Radical Journal of Geography*. 39: 708-728. (Impact factor: 1.284)
- Swanson, Kate, Richard G. Kuhn and Wei Xu. 2001. Environmental policy implementation in rural China: a case study of Yuhang, Zhejiang. *Environmental Management*. 27: 481-491. (Impact factor: 1.503)

Chapters in Refereed Books

- Swanson, Kate. Under review. Where is home? An autoethnography of academic migration. Invited chapter in *Academic Mobility at the Borderlands*. Edited by Rémy Tremblay and Susan Hardwick. Montreal: McGill-Queens University Press.
- Swanson, Kate. Accepted (pending minor revisions). Urban ethnography. Invited chapter in *Researching the City: A Guide for Students*. Edited by Kevin Ward. London: Sage Press.
- Swanson, Kate. In Press. Children and young people in Latin America. Invited chapter in *Placing Latin America: Contemporary Themes in Human Geography*, 2nd edition. Edited by Ed Jackiewicz and Fernando Bosco. Lanham: Rowman and Littlefield Publishers.
- Goode, Ryan J., Kate Swanson and Stuart C. Aiken. In Press. From God to Men: media and the turbulent fight for Rio's favelas in G. H. Curti, J. Craine, and S. Aitken (Eds.). *The Fight to Stay Put: Social Lessons through Media Imaginings of Urban Transformation and Change*. Stuttgart: Franz Steiner Verlag.
- Swanson, Kate. 2011. 'For every border, there is also a bridge': overturning borders in young indigenous lives. Chapter in *Young People, Border Spaces and Revolutionary Imaginations*. New York: Routledge.
- Philo, Chris and Kate Swanson. 2008. Afterword: global portraits and local snapshots. Pages 193-207 in C. Jeffrey and J. Dyson (eds.), *Telling Young Lives: Portraits of Global Youth*. Philadelphia: Temple University Press.

Peer-reviewed Scholarly Books

- Aitken, Stuart C., Kate Swanson, Fernando Bosco and Thomas Herman (Eds.). 2011. *Young People, Border Spaces and Revolutionary Imaginations*. New York: Routledge.

Swanson, Kate. 2010. *Begging as a Path to Progress: Indigenous Women and Children and the Struggle for Ecuador's Urban Spaces*. Geographies of Justice and Social Transformation book series edited by Nik Heynen, Andrew Herod and Melissa W. Wright. Athens: University of Georgia Press.

Reviewed in: *Latin American Research Review (LARR)*, forthcoming, *Journal of Latin American Studies*, forthcoming by Samantha Punch; *Political and Legal Anthropology Review*, forthcoming by Chris Garces; *Journal of Latin American Geography* (2011), 10: 207-209 by Robert Oliver; *Missiology: An International Review* (2011), XXXIX: 1 by Fred Smith.

Author-Meets-Critic session, Association of American Geographers, April 12 2011, Seattle, Washington, reviewed by Steve Herbert, Sharlene Mollett, Lise Nelson and Giorgio Curti (substituted for Oslender due to illness).

Honored at: Geographical Perspectives on Women (GPOW) Book Event at the 2010 Association of American Geographers Annual Meeting, April 15 2010.

Swanson, Kate. 2010. *Pidiendo Caridad en la Ciudad: Mujeres y Niños Indígenas en las Calles de Ecuador*. Quito: Facultad Latinoamericana de Ciencias Sociales (FLACSO)-Abya Yala.

Reviewed in: *Iconos* (2010), 38: 175-178 by Erika Bedón; *Ecuador Debate*, forthcoming by Erin O'Connor.

Author-Meets-Critic session, Fifth Meeting of the Ecuadorian Section of the Latin American Studies Association (LASA) (Quinto Encuentro de la Sección de Estudios Ecuatorianos de la Asociación de Estudios Latinoamericanos), reviewed by Marc Becker, Erin O'Connor, and Alfredo Santillan, June 1 2011, FLACSO, Quito, Ecuador.

Book Reviews

Swanson, Kate. 2008. The politics of sentiment: imagining and remembering Guayaquil, by O. Hugo Benavides. *Bulletin of Hispanic Studies*. 85: 158-189.

Swanson, Kate. 2006. On the margins of inclusion: changing labour markets and social exclusion in London, by David. M. Smith. *Urban Studies*. 43: 2360-2361.

Edited Journal Collections

Aitken, Stuart C., Kate Swanson, Fernando Bosco and Thomas Herman (Eds.). 2011. Young People, Border Spaces and Revolutionary Imaginations in *Children's Geographies*.

This special issue features writings by fourteen scholars from academic institutes in the United States, Canada, Mexico and the United Kingdom. Notably, Routledge published this special issue as a separate book in Spring 2011 (see above, under Peer-reviewed Scholarly Books).

CURRICULUM VITAE

I. MING-HSIANG TSOU

Professor, Department of Geography

San Diego State University, 5500 Campanile University,

II. EDUCATION

<u>Institution</u>	<u>Years Attended</u>	<u>Degree</u>	<u>Major Field</u>
University of Colorado at Boulder	1996-2001	Ph.D.	Geography
State University of New York at Buffalo	1994-1996	M.A.	Geography
National Taiwan University	1987-1991	B.S.	Geography

III. ACADEMIC POSITIONS AND RANKS HELD

<u>Institution</u>	<u>Rank</u>	<u>Dates</u>	<u>Major Subject</u>
San Diego State University	Professor	2011 to present	Geography
San Diego State University	Associate Professor	2005 to 2011	Geography
San Diego State University	Assistant Professor	2000 to 2005	Geography

IV. HONORS AND AWARDS

- The San Diego State University Senate Excellence in Teaching Award for 2010-2011 (the College Awardee).
- 2010 Outstanding Faculty Award, San Diego State University.
- **2009 HI-TEC (education) Innovative Program award** at the 2009 HI-TEC conference (High Impact Technology Exchange Conference), Scottsdale, Arizona.
- 2004 Outstanding Faculty Award, San Diego State University.

V. PROFESSIONAL ACTIVITIES

- *Appointed by the National Academy of Science in 2006 to serve on the committee on “Research Priorities for the USGS Center of Excellence for Geospatial Information Science” and completed the NAS report in 2007. The report was published by the National Research Council (http://books.nap.edu/openbook.php?record_id=12004).*
- *Served on the editorial boards of the Annals of GIS (2008-) and the Professional Geographers (2011-).*
- The Co-Chair of the NASA Earth Science Data System Working Group (ESDSWG) Standard Process Group (SPG) from 2004 to 2007. Elected by the SPG members during the NASA ESDSWG annual meeting at Orlando, Florida, January 2004. (*Website of SPG: <http://spg.gsfc.nasa.gov/>*)
- The Chair of the Cartographic Specialty Group (CSG) (2007 – 2008) in the Association of American Geographers. Elected by the CSG members in 2006 annual meeting
- The Vice Chair of the Cyberinfrastructure Specialty Group (2011-2012) in the Association of American Geographers.
- Invited to serve on the Scientific Boards for GIS PLANET 2005 (International GIS Conference), GIScience 2008 International Conference, and GIScience 2010 International Conference. GIScience 2012 conference (Reviewing conference paper submissions)
- Invited to serve on the Scientific Committee of WebMGS 2010 and WebMGS2011 (ISPRS: 1st International Workshop on Pervasive Web Mapping, Geoprocessing and

Services, the International Society for Photogrammetry and Remote Sensing) (Reviewing conference paper submissions) <http://webmgs2010.comopolimi.it/committees.php>

VI. PARTICIPATION IN CAMPUS GOVERNANCE

- 2008 – Present University Senate - Instructional and Information Technology (IIT) committee. I served as the CAL representative and attended the IIT committee meeting monthly.
- 2005 – Present Establish the international exchange agreements and programs (both faculty exchange and student exchange programs) between the National Taiwan Normal University and San Diego State University. . <http://www-rohan.sdsu.edu/~oip/activeMap/asia/taiwan.htm>.
- 2002 - 2009 Internal Resource Committee (**Chair**). Department of Geography.
- 2009 - Present Public Relationship Ad-hoc Committee.
- 2009 – Present Ph.D. Committee, Department of Geography

VII. Extramural Support (summarized in Data Notebook documents).

PUBLICATIONS (Total: 42 publications).

Five most important publications:

1. Peng, Z.R. and Tsou, M. H. (2003). *Internet GIS: distributed geographic information services for the Internet and wireless networks*. (720 pages, publisher: John Wiley & Sons, Inc.).
2. Tsou, M. H. (2011). Revisiting Web Cartography in the United States: the Rise of User-Centered Design. *Cartography and Geographic Information Science*, 38 (3), 249- 256.
3. Tsou, M. H. and Yanow, K. (2010). Enhancing General Education with Geographic Information Science and Spatial Reasoning. *Urban and Regional Information Systems Association (URISA) Journal*, Special Issue on Geospatial Education and Training. 22(2), 45-54. [LINK \(PDF\)](#)
4. Zhang, T. and Tsou, M.-H. (2009). Developing a grid-enabled spatial Web portal for Internet GIServices and geospatial cyberinfrastructure, *International Journal of Geographical Information Science*. 23(5), pp.605-630. [LINK \(PDF\)](#).
5. Tsou, M. H. and Buttenfield, B. P. (2002). A Dynamic Architecture for Distributing Geographic Information Services. *Transactions in GIS*, 6(4), pp. 355-381. [LINK \(PDF\)](#).

Other Selective Publications (2002 – 2011) (selective).

Refereed Journals:

- Tsou, M.-H. and Kim, I. H. (2010). Increasing Spatial Awareness by Integrating Internet Geographic Information Services (GIServices) with Real Time Wireless Mobile GIS Applications. *International Journal of Strategic Information Technology and Applications (IJSITA)*, 1(4), 42-54. [LINK](#)
- Kawabata, Mizuki, Thapa, Rajesh, Oguchi, Takashi, and Tsou, Ming-Hsiang (2010) Multidisciplinary Cooperation in GIS Education: A Case Study of US Colleges and Universities, *The Journal of Geography in Higher Education*. 34(4), 493- 509.
- Zhang, T., Tsou, M.-H., Qiao, Q., and Hu, B. (2010). Designing Integrated High

Performance Web Portals for GIScience Research. *Journal of Internet Technology*. 11(6), 809-820.

- Jankowski, P., Tsou M.-H., and Wright, R.D. (2007). Applying Internet Geographic Information System for Water Quality Monitoring. *Geography Compass* 1/6 (2007): 1315–1337. [LINK \(PDF\)](#)
- Zhang, T. and Tsou, M.-H. (2005) The Integration of Grid-enabled Internet GIServices and Geographic Semantic Web Technologies. In Special Issue on Distributed GIS, *Geographic Information Science* (the former journal of *Annals of GIS*), 11 (1), pp. 15-23. [LINK \(PDF\)](#).
- Tsou, M.-H., Guo, L., and Howser, T. (2005). A Web-based Java Framework for Cross-Platform Mobile GIS and Remote Sensing Applications. *GIScience & Remote Sensing*. 42(4).pp. 278-302. [LINK \(PDF\)](#).
- Tsou, M.-H. (2004). Integrated Mobile GIS and Wireless Internet Map Servers for Environmental Monitoring and Management, (the Special Issue on Mobile Mapping and Geographic Information Systems) in *Cartography and Geographic Information Science*. 31(3), pp. 153-165. [LINK \(PDF\)](#).
- Tsou, M.-H. (2004). Integrating Web-based GIS and On-line Remote Sensing Facilities for Environmental Monitoring and Management. In special issue on the potential of Web-based GIS, *the Journal of Geographical Systems*. 6(2), pp. 155-174. [LINK \(PDF\)](#).
- Tsou, M.-H., Guo L., and Stow D. (2003). Web-based Remote Sensing Applications and Java Tools for Environmental Monitoring, *Online Journal of Space Communication*, No. 3, http://spacejournal.ohio.edu/issue3/abst_tsou.html

Chapters in Refereed Books

- Tsou, M. H. and Kim, I. H. (2011) Creating GIS simulation models on a TeraGrid-enabled Geospatial Web Portal: A Demonstration of Geospatial Cyberinfrastructure. In *Advances in Web-based GIS, Mapping Services and Applications* (Volume in ISPRS Book Series). Edited by Songnian Li, Suzana Dragicevic and Bert Veenendaal.
- Tsou, Ming-Hsiang (2009). Chapter 48: The Integration of Internet GIS and Wireless Mobile GIS. In *Manual of Geographic Information Systems*, edited by Marguerite Madden, published by the American Society for Photogrammetry and Remote Sensing (ASPRS), pp. 923-933. [LINK \(PDF\)](#).
- Chang, Kuo-Chen and Tsou, Ming-Hsiang (2008). Chapter 6. New Approaches for Integrating GIS layers and Remote Sensing Imagery for Online Mapping Services. In *International Perspectives on Maps and the Internet*. (edited by M. P Peterson). Berlin: Springer. pp. 91- 102. [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang and Curran, Judd M. (2008). Chapter 20. User-Centered Design Approaches for Web Mapping Applications: A Case Study with USGS Hydrological Data in the United States. In *International Perspectives on Maps and the Internet*. (edited by M. P Peterson). Berlin: Springer., pp. 301-321. [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang and Sun, Chin-Hong. (2007). Mobile GIServices Applications in Disaster Management, Book chapter in *Dynamic and Mobile GIS: Investigating Change in Space and Time*. (edited by Drummond, J, Billen, R., Forrest, D. and Joao, Ed. 2007. London: CRC Press (Taylor & Francis). (Innovations in GIS book series), pp. 213-236.
- Tsou, Ming-Hsiang. (2006). Bridging the Gap: Connecting Internet-based Spatial Decision Support Systems to the Field-based Personnel with Real time Wireless Mobile GIS applications. Book chapter in *Collaborative Geographic Information Systems* (Edited by Shivanand Balram and Suzana Dragicevic). Hershey, Pennsylvania: Idea Group, Inc., pp. 316-339. [LINK \(PDF\)](#).

- Tsou, Ming-Hsiang (2003). Chapter 14: An Intelligent Software Agent Architecture for Distributed Cartographic Knowledge Bases and Internet Mapping Services. In *Maps and the Internet*, M. Peterson (ed), Oxford: Elsevier Press, pp. 229-243. (published on behalf of the International Cartographic Association). [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang (2002). An Operational Metadata Framework for Searching, Indexing, and Retrieving Distributed Geographic Information Services on the Internet. In *Geographic Information Science - Second International Conference GIScience 2002*, M. Egenhofer and D. Mark (eds.), *Lecture Notes in Computer Science* Vol. 2478, Berlin: Springer. pp. 312-333. [LINK \(PDF\)](#).

Encyclopedia Entries

- Tsou, M.H. (2008). Data Warehouse. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 94-95).
- Tsou, M.H. (2008). Distributed GIS. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 115-118).
- Tsou, M.H. (2008). Spatial Data Server. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 404-406).
- Tsou, M.H. (2008). Web Services. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 513-514).
- Tsou, M.H. (2010). Mobile GIS. In Barney Warf (editor). *Encyclopedia of Geography*. SAGE: Thousand Oaks. vol. 4, pages 1918-1921.
- Tsou, M.H. (2010). Internet GIS. In Barney Warf (editor). *Encyclopedia of Geography*. SAGE: Thousand Oaks. vol. 3, pages 1620-1623.
- Tsou, M.H. (2010). Distributed Computing. In Barney Warf (editor). *Encyclopedia of Geography*. SAGE: Thousand Oaks, vol. 2, pages 776-778.

Articles in Refereed Proceedings

- Tsou, Ming-Hsiang (2011). **Mapping Cyberspace: Tracking the Spread of Ideas on the Internet**. *Refereed Proceeding of the 25th International Cartographic conference*, July 3-8, 2011, Paris, France.
- Tsou, Ming-Hsiang, Zhang, Tong, and Kaiser, John (2007) Internet GIServices for Homeland Security, *Geoinformatics 2007 Conference* (17–18 May 2007)
- Tong Zhang, Ming-Hsiang Tsou, Qinghua Qiao, and Lin Xu (2006). Building an intelligent geospatial cyberinfrastructure: an analytical problem solving approach, *Proc. SPIE*, Vol. 6420, 64200A (2006); doi:10.1117/12.712656. Conference Title: *Geoinformatics 2006: Geospatial Information Science*.

Book Review:

- Tsou, Ming-Hsiang (2008). Book Review: *Map-based Mobile Services: Theories, Methods, and Implementations* by Liqui Meng, Alexander Zipf, and Tumasch Reichenbacher (Eds.). *Annals of GIS*. 15(1), p. 73.

CURRICULUM VITAE

Name: JOHN R. WEEKS

Rank: Professor

Education:

Ph.D. (Demography) University of California, Berkeley, 1972

M.A. (Demography) University of California, Berkeley, 1969

A.B. (Sociology) University of California, Berkeley, 1966

Academic Appointments:

2011 – present Distinguished Professor of Geography and Director, International Population Center, San Diego State University

<http://geography.sdsu.edu/People/Faculty/weeks.html>;

<http://geography.sdsu.edu/Research/Projects/IPC/ipc2.html>

1998 - present Clinical Professor of Global Public Health, School of Medicine, University of California, San Diego

1992 – 2010 Professor of Geography and Director, International Population Center, San Diego State University

1985 - 1992 Professor of Sociology and Director, International Population Center, San Diego State University

1981 - 1985 Professor and Chair, Department of Sociology, San Diego State University

1978 - 1981 Associate Professor and Chair, Department of Sociology, San Diego State University

1974 - 1978 Assistant Professor, Department of Sociology, San Diego State University

1971 - 1974 Assistant Professor of Sociology and Assistant Professor of Anthropology (joint appointment in James Madison College and the Department of Anthropology), Michigan State University, East Lansing, Michigan

1970 - 1971 Teaching Assistant, Department of Demography, University of California, Berkeley

Honors and Awards (selected):

California State Scholarship, University of California, Berkeley, 1962-66

NIH Traineeship in Demography, Department of Demography, University of California, Berkeley, 1967-1971

Recipient of "Most Influential Professor" Award, Undergraduate Studies (named by Outstanding Graduating Student in Liberal Studies), San Diego State University, 1996

Recipient of San Diego State University Alumni Association "Monty" Award for Outstanding Faculty Member in the College of Arts and Letters, 2003.

Recipient of "Most Influential Professor" Award, Department of Geography (named by Outstanding Graduating Student in Geography), San Diego State University, 2003, 2007.

Senior Fellow, California Council on Science and Technology, 2008 to present.

Recipient of the Albert W. Johnson Research Award and Distinguished Professorship, San Diego State University, 2011.

Professional Activities (selected):

Editorial Board, *Annals of the Association of American Geographers* (2010-2014).

Editorial Board, *Journal of Immigrant Health* (1996 to present).

Member, Editorial Board, *GeoJournal* (2007-present).

International Institute for Applied Systems Analysis (IIASA), Population and Society Site Evaluation Team Member, Vienna, Austria, January 2007.
National Research Council, Committee on the Effective Use of Data, Methodologies and Technologies to Estimate Sub-National Populations at Risk, Member 2005-2007
External Member, Study Section for Social Science and Population Studies, *Eunice Kennedy Shriver* National Institute of Child Health and Human Development, June 2005 to present.
Population Association of America (PAA)
PAA Historian and Chair, PAA History Committee, 1994-present
(<http://geography.sdsu.edu/Research/Projects/PAA/paa.html>)
Chair, Memorial Service Committee, 2009-2011

Participation in Campus Governance (selected):

Academic Advisor, Certificate in Environmental Studies, 1997-present
Chair, Student Outcomes Assessment Committee, Department of Geography, 2000-present
Member, Search Committee for the Harold Simon Endowed Chair in International Health and Cross-Cultural Medicine, UCSD School of Medicine, 2000-2003
Member, Search Committee for the Dean of the College of Health and Human Services, 2004-2005
Member, University Research Council, 2010-present.

Extramural Support: Summarized in Self Study and Data Notebook documents.

Publications: Total number of scholarly publications: 130

1) five most significant articles or books:

John R. Weeks, *Population: Introduction to Concepts and Issues, Eleventh Edition* (Belmont, CA: Wadsworth Cengage Learning), 2011
Gregory B. Weeks and John R. Weeks, *Irresistible Forces: Explaining Latin American Migration to the United States and Its Effects on the South* (Albuquerque, NM: The University of New Mexico Press), 2010.
John R. Weeks, "The Role of Spatial Analysis in Demographic Research," in Michael F. Goodchild and Donald G. Janelle (eds.), *Spatially Integrated Social Science: Examples in Best Practice* (New York: Oxford University Press), 2004.
John R. Weeks, "Using Remote Sensing and Geographic Information Systems to Identify the Underlying Properties of Urban Environments," Chapter 17 in Tony Champion and Graeme Hugo, eds., *New Forms of Urbanization: Conceptualizing and Measuring Human Settlement in the Twenty-first Century* (London: Ashgate Publishing Limited), 2004.
John R. Weeks, Arthur Getis, Douglas A. Stow, Allan G. Hill, David Rain, Ryan Engstrom, Justin Stoler, Christopher Lippitt, Marta Jankowska, Anna Carla Lopez, Lloyd Coulter, and Caetlin Ofiesh, "Connecting the Dots Between Health, Poverty and Place in Accra, Ghana," Special Issue on Health, of the *Annals of the Association of American Geographers*, forthcoming.

2) all scholarly publications appearing 2002 through the present (selected, excludes above 5).

Christopher Peak and John R. Weeks, "Does Community Context Influence Reproductive Outcomes of Mexican Origin Women in San Diego, California?," *The Journal of Immigrant Health*, 4(3):125-136, 2002. PMID: 16228756.
David L. McIntyre and John R. Weeks, "Environmental Impacts of Illegal Immigration on the Cleveland National Forest in California," *Professional Geographer*, 54(3):392-405, 2002.
John R. Weeks, "Estimating the Muslim Population in the United States Using Census 2000 Data," *Espaces-Populations-Sociétés*, 2003-1:89-101, 2003.

- Tarek Rashed and John R. Weeks, "Assessing Vulnerability to Earthquake Hazards Through Spatial Multicriteria Analysis of Urban Areas," *International Journal of Geographical Information Science*, 17(6):549-578, 2003.
- Tarek Rashed, John R. Weeks, Dar Roberts, John Rogan, and Rebecca Powell, "Measuring the Physical Composition of Urban Morphology Using Multiple Endmember Spectral Mixture Models," *Photogrammetric Engineering and Remote Sensing* 69(9): 1111-1120, 2003.
- John R. Weeks, Arthur Getis, Allan G. Hill, Tarek Rashed, and M. Saad Gadalla, "The Fertility Transition in Egypt: Intra-Urban Patterns in Cairo," *Annals of the Association of American Geographers*, 94 (1):74-93, 2004.
- John R. Weeks, "What Did He Know, and When Did He Know It? Putting Glenn Trewartha's Call for Population Geography into Historical Perspective." *Population, Space and Place* 10:279-283, 2004.
- Tarek Rashed, John R. Weeks, Douglas A. Stow, and Debbie Fugate, "Measuring Temporal Compositions of Urban Morphology through Spectral Mixture Analysis: Toward a Soft Approach to Change Analysis in Crowded Cities," *International Journal of Remote Sensing*, 26(4):699-718, 2005.
- John R. Weeks, Allan G. Hill, Arthur Getis, and Douglas Stow, 2006, "Ethnic Residential Patterns as Predictors of Intra-Urban Child Mortality Inequality in Accra, Ghana," *Urban Geography* 27(6):526-548. PMID: PMC2758568.
- Gregory B. Weeks, John R. Weeks, and Amy J. Weeks, "Latino Immigration to the U.S. South: 'Carolatinos' and Public Policy in Charlotte, North Carolina," *Latino(a) Research Review*, 6:1-2:50-72, 2007.
- John R. Weeks, Allan G. Hill, Douglas A. Stow, Arthur Getis, and Debbie Fugate, "Can You Spot a Neighborhood From the Air? Defining Neighborhood Structure in Accra, Ghana," *GeoJournal* 69:9-22, 2007. PMID: 19478993.
- Chris D. Elvidge, P. Cinzano, D. R. Pettit, J. Arvesen, Paul Sutton, Christopher Small, R. Nemani, T. Longcore, C. Rich, J. Safran, John R. Weeks, and S. Ebener, "The Nightsat Mission Concept," *International Journal of Remote Sensing* 28(12):2645-70, 2007.
- Douglas A. Stow, Anna Carla Lopez, Christopher Lippitt, Sarah Hinton, and John R. Weeks, "Object-based classification of residential land use within Accra, Ghana based on QuickBird satellite data," *International Journal of Remote Sensing*, 28(22):5167-5173, 2007. PMID: 19424445.
- Justin Stoler, John R. Weeks, Arthur Getis, and Allan G. Hill, "Distance Threshold for the Effect of Urban Agriculture on Elevated Self-reported Malaria Prevalence in Accra, Ghana," *American Journal of Tropical Medicine and Hygiene* 80(4): 547-554, 2009. PMID: 19346373.
- John R. Weeks, Arthur Getis, Allan G. Hill, Samuel Agyei-Mensah, and David Rain, "Neighborhoods and Fertility in Accra, Ghana: An AMOEBA-based Approach," *Annals of the Association of American Geographers*, 100(3):558-578, July 2010. PMID: PMC3093308.
- Douglas Stow, Chris Lippitt, and John R. Weeks, "Delineation of Neighborhoods of Accra, Ghana Based on QuickBird Satellite Data," *Photogrammetric Engineering and Remote Sensing*, 76(8):907-914, August 2010. PMID: 20689664.
- John R. Weeks, Justin Stoler, and Piotr Jankowski, "Who's Crossing the Border: New Data on Undocumented Immigrants to the United States," *Population, Space and Place*, 17(1):1-26, 2011.
- Justin Stoler, Dean Daniels, John R. Weeks, Douglas A. Stow, Lloyd L. Coulter, and Brian K. Finch, "Assessing the Utility of Satellite Imagery with Differing Spatial Resolutions for Deriving Proxy Measures of Slum Presence in Accra, Ghana," *GIScience & Remote Sensing*, forthcoming.

- Gregg Verutes, John R. Weeks, and Lloyd L. Coulter, "Health, Poverty, and Place in Accra, Ghana: Mapping Neighborhoods," *Journal of Maps, Special Issue on Innovative Mapping in Spatial Demography*, forthcoming.
- John R. Weeks, Arthur Getis, Douglas A. Stow, Allan G. Hill, David Rain, Ryan Engstrom, Justin Stoler, Christopher Lippitt, Marta Jankowska, Anna Carla Lopez, Lloyd Coulter, and Caetlin Ofiesh, "Connecting the Dots Between Health, Poverty and Place in Accra, Ghana," Special Issue on Health, of the *Annals of the Association of American Geographers*, forthcoming.
- Marta M. Jankowska, John R. Weeks, and Ryan Engstrom, "Do the Most Vulnerable People Live in the Worst Slums? A Spatial Analysis of Accra, Ghana," *Annals of GIS*, forthcoming.
- Justin Stoler, Günther Fink, John R. Weeks, Richard Appiah Otoo, Joseph Ampofo, and Allan G. Hill, "When Urban Taps Run Dry: Sachet Water Consumption and Health Effects in Low Income Neighborhoods of Accra, Ghana," *Health & Place*, forthcoming.
- John R. Weeks, "Does Night-Time Lighting Deter Crime? An Analysis of Remotely-Sensed Imagery and Crime Data," in Victor Mesev (ed.), *Remotely-Sensed Cities* (London: Taylor & Francis), 2003.
- John R. Weeks, "Using Remote Sensing and Geographic Information Systems to Identify the Underlying Properties of Urban Environments," Chapter 17 in Tony Champion and Graeme Hugo, eds., *New Forms of Urbanization: Conceptualizing and Measuring Human Settlement in the Twenty-first Century* (London: Ashgate Publishing Limited), 2004.
- John R. Weeks, "The Role of Spatial Analysis in Demographic Research," in Michael F. Goodchild and Donald G. Janelle (eds.), *Spatially Integrated Social Science: Examples in Best Practice* (New York: Oxford University Press), 2004.
- John R. Weeks, Dennis Larson, and Debbie Fugate, "Patterns of Urban Land Use as Assessed by Satellite Imagery: An Application to Cairo, Egypt," Chapter 11 in Barbara Entwisle, Ronald Rindfuss, and Paul Stern, editors, *Population and Environment* (Washington, DC: National Academies Press), 2005.
- John R. Weeks, "Spatial Patterns of Fertility Change in Rural Egypt," Chapter 17 in Luc Anselin and Serge Rey, editors, *Perspectives on Spatial Data Analysis* (New York: Springer Publishing Co.), 2010.
- Susan L. Cutter, Margaret Arnold, Deborah Balk, Bela Hovy, Mei-Po Kwan, Jonathan D. Mayer, David R. Rain, Havidan Rodriguez, Barbara Boyle Torrey, Billie L. Turner II, John R. Weeks, and Tukufu Zuberi, *Tools and Methods for Estimating Populations at Risk From Natural Disasters and Complex Humanitarian Crises* (Washington, DC: The National Academies Press), 2007.
- John R. Weeks and Debbie L. Fugate, Editors, *The Youth Bulge: Challenge or Opportunity?* (New York: Open Society Institute), in press.

University of California,
Santa Barbara
Faculty Information

University of California, Santa Barbara
Department of Geography Faculty

Bodo Bookhagen, Associate Professor
Biogeosciences, Remote Sensing

PhD (summa cum laude), Potsdam University, Germany (Geology), 2005
Understanding Quaternary climate change, geomorphic processes, landscape evolution, and tectonic processes through integrated studies involving cosmogenic radionuclide dating, recent and past climatic records, remote sensing, numerical modeling, and field observations

Leila Carvalho, Assistant Professor
Climate

PhD, University of São Paulo, Brazil (Meteorology), 1998
Regional and large-scale climate variability and modeling, global climate change, and scaling processes in geophysics

Oliver Chadwick, Professor
Biogeosciences

PhD, University of Arizona (Geology, emphasis on Soil Genesis and Quaternary Geology), 1985. Pedology, geomorphology, quaternary geology, soil-water-vegetation interaction and landscape relationships, and isotropic fractionations during soil evolution

Richard Church, Professor
Transportation

PhD, The Johns Hopkins University (Environmental Systems Engineering), 1974
Spatial optimization, natural resources management, operations research methods, GIS

Keith Clarke, Professor
Geographic Information Science

PhD, The University of Michigan (Analytical Cartography), 1982
Cartography and GIS

Helen Couclelis, Professor
Cognitive and Behavioral Geography, Geographic Information Science, Human-Environment Relations

PhD, Cambridge University (Urban Modeling), 1977
Urban and regional modeling and planning, spatial cognition, geographic information science, geography of the information society

Tommy Dickey, Professor
Ocean Processes

PhD, Princeton University (Geophysical Fluid Dynamics), 1977
Atmosphere-ocean interactions and upper ocean mixing, turbulence and internal waves, bio-optics, biogeochemistry, and biological-physical interactions

Catherine Gautier, Professor

Climate

Doctorat d'Etat, University of Paris (Physics and Meteorology), 1984

Global Radiation and Water, El Niño, Clouds, Aerosol and Climate, Global Remote Sensing, Earth System Science Education

Michael Goodchild, Professor

Geographic Information Science

PhD, McMaster University (Geography), 1969

Urban and economic geography, geographic information systems, and spatial analysis

Kostas Goulias, Professor

Transportation

PhD, University of California Davis (Civil Engineering), 1991

Transportation planning-modeling-simulation, travel behavior dynamics and microsimulation

Krzysztof Janowicz, Assistant Professor

Cognitive and Behavioral Geography, Geographic Information Science

PhD, University of Münster, Germany, 2008

Geographic Information Science, Semantic Web, Sensor Web, Mobile Computing, Geographic Information Retrieval, Gazetteers, Similarity & Context
(new to UCSB; CV not available)

Jennifer King, Associate Professor

Biogeosciences

PhD, University of California, Irvine, 1999

Biogeochemistry, earth system science, global change, ecosystem ecology, plant-soil-atmosphere interactions

Phaedon Kyriakidis, Associate Professor

Geographic Information Science

PhD, Stanford University (Geological and Environmental Sciences), 1999

Geostatistics and spatial analysis, stochastic environmental modeling, scale issues in spatial data integration

Hugo Loaiciga, Professor

Biogeosciences

PhD, University of California, Davis (Water Resources and Hydrology), 1986

Planning, design and analysis of water resources systems, and theory and computational aspects of surface and ground water hydrology

David Lopez-Carr, Associate Professor

Human-Environment Relations

PhD, University of North Carolina, Chapel Hill, NC (Geography), 2002

Population (migration, fertility), health, environmental change, deforestation, rural development, Latin America

Joe McFadden, Assistant Professor

Biogeosciences

PhD, University of California, Berkeley (Integrative Biology), 1998

Land-use and land-cover change, biosphere-atmosphere interactions, Earth system science, sustainability science, urban ecology

Joel Michaelsen, Professor

Climate

PhD, University of California, Berkeley (Geography), 1982

Climatology, meteorology, and statistics

Dan Montello, Professor

Cognitive and Behavioral Geography, Geographic Information Science, Human-Environment Relations

PhD, Arizona State University (Environmental Psychology), 1988

Spatial perception, cognition, and behavior; cognitive issues in cartography and GIS; spatial aspects of social behavior; environmental psychology and behavioral geography

Dar Roberts, Professor

Biogeosciences, Remote Sensing

PhD, University of Washington (Geological Sciences), 1991

Remote sensing of vegetation, geology, ecology, and ecophysiology

David Siegel, Professor

Biogeosciences, Ocean Processes, Remote Sensing

PhD, University of Southern California (Geological Sciences with specialty in Ocean Physics), 1988

Interdisciplinary oceanography investigating physical, biological, optical and biogeochemical couplings on micro to ocean basin scales. Specifically, satellite ocean color remote sensing and optical oceanography, scale interaction in ecological and population systems, role of radiative exchange in air-sea interactions, and data information systems

Chris Still, Associate Professor

Biogeosciences

PhD, Stanford University (Biological Sciences), 2000

Biogeochemistry, biogeography, earth system science, sustainability science, ecological climatology, climate change, carbon cycling, plant ecophysiology, and stable isotopes

Stuart Sweeney, Associate Professor

Human-Environment Relations

PhD, University of North Carolina at Chapel Hill (City and Regional Planning), 1999

Urban and regional modeling and planning, human migration, local economic development/policy, and spatial point process models of economic activity

Libe Washburn, Professor

Ocean Processes

PhD, University of California, San Diego (Engineering Sciences and Fluid Mechanics), 1982. Coastal circulation, mesoscale processes, air-sea interaction, and interdisciplinary oceanography

FACULTY SERVICE ON DOCTORAL COMMITTEES*: UCSB FACULTY 2002-03 through 2010-11	
Faculty Member	Number of Committees Served On
Bookhagen	1
Boris	1
Chadwick	3
Church	5
Clarke	13
Couclelis	13
D'Antonio	1
Davis	1
Dutra	1
Fabrikant	1
Golledge	2
Goodchild	7
Goulias	1
Kyriakidis	5
Loaiciga	3
Lopez-Carr	11
Melack	1
Michaelsen	2
Montello	2
Pinedo-Turnovsky	1
Raubal	3
Roberts	11
Still	2
Stonich	3
Sweeney	6
Tague	2

*

Committee membership for students who participated in the joint doctoral program between Fall 2002 and Spring 2011. Does not include students who withdrew or were terminated from the program.



CURRICULUM VITAE

Name: Bodo Bookhagen

Rank: Asst. Professor

Education: PhD, 2005, University of Potsdam

Academic Appointments:

Jun. 2009 – Sep. 2009	Visiting faculty, Inst. f. Geowiss., Potsdam University
Jun. 2008 – Sep. 2008	Visiting faculty, Inst. f. Geowiss., Potsdam University
since Feb. 2008	Affiliated Faculty, Dept. of Earth Sciences, UC Santa Barbara
since Jan. 2008	Asst. Professor, Geography Dept., UC Santa Barbara
Jun. 2007 – Sep. 2007	Visiting researcher, Inst. f. Geowiss., Potsdam University
Jan. 2006 – Dec. 2007	Postdoctoral researcher, GES, Stanford University
Jan. 2005 – Sep. 2007	Adjunct Researcher at the Inst. f. Geowiss., Potsdam University
Jan. 2005 – Feb. 2006	Assistant Researcher, Institute for Crustal Studies, UC Santa Barbara
Jun. 2004 – Nov. 2004	Research Associate at the Space Science Laboratory, UC Berkeley
May 2003 – Dec. 2003	Research Associate at the University of California, Berkeley

Honors and Awards:

2005	Best PhD-student publication award (Leibniz-Kolleg, Potsdam University)
2004	‘Bernd-Rendel-Preis’ (Achievement award by the German Sci. Foundation)

Professional Activities: Lithosphere (GSA Journal), Editorial Board

Extramural Support:

Years	Source	Title	Amt.	PI
2008-2011	NASA	Quantification of Climate-Erosion Coupling in the Himalaya	\$253,000	Burbank, Bookhagen
2008-2011	NSF	Orogeny, Orography, and unsteady erosion: evolution of the Himalaya	\$280,000	Burbank, Bookhagen, Hourigan
2009-2010	NASA	Aster-derived river widths and spatial implications for erosion in the tectonically active Himalaya	\$30,000	Bookhagen, Fisher
2010	NSF Rapid	RAPID: Fires in Coastal California: Watershed and Ecological Responses to an acute Environmental Disturbance	\$150k	Melack
2010-2013	DFG (German Science Foundation)	HIMPAC: Himalayas: Modern and Past Climates	~\$250k	Strecker, Bookhagen
2010-2011	Council on Research and Instructional Resources Faculty Grants Committee	The impact of the 2009/10 El Nino on mass transport and erosion processes on Santa Cruz Island, California, <i>8-pending-19900-7</i>	\$10,000	Bookhagen



Publications:

1) list the total number of scholarly publications

35 publications

2) provide a list of the five most significant articles or books;

Scherler, D., **Bookhagen, B.**, Strecker, M.R. (2011): Spatially variable response of Himalayan glaciers to climate change affected by debris cover, *Nature Geoscience*, doi:10.1038/ngeo1068

Bookhagen, B. and Burbank, D.W. (2010): Towards a complete Himalayan hydrologic budget: The spatiotemporal distribution of snow melt and rainfall and their impact on river discharge, *Journal of Geophysical Research-Earth Surface*, doi:10.1029/2009jf001426.

Bookhagen, B. and Burbank, D.W. (2006): Topography, Relief, and TRMM-derived rainfall variations along the Himalaya, *Geophys. Res. Lett.*, 33, L08405, doi:10.1029/2006GL026037. [selected as AGU Editor's Choice in May 2006]

Bookhagen, B., Thiede, R.C., Strecker, M.R. (2005): Late Quaternary intensified monsoon phases control landscape evolution in the northwest Himalaya, *Geology*, 33 (2), 149-152.

Bookhagen, B., Thiede, R.C., Strecker, M.R. (2005): Abnormal Monsoon years and their control on erosion and sediment flux in the high, arid northwest Himalaya, *Earth and Planetary Science Letters*, 231, 131-146.

Thiede, R.C., **Bookhagen, B.**, Arrowsmith, J.R., Sobel, E.R., Strecker, M.R. (2004): Climatic control on rapid exhumation along the Southern Himalayan Front, *Earth and Planetary Science Letters*, 222 (3-4), 791-806.

3) list all scholarly publications appearing within the past nine years,

Scherler, D., **Bookhagen, B.**, Strecker, M.R. (2011): Hillslope-glacier coupling: the interplay of topography and glacial dynamics in High Asia, *JGR-Earth Surface*, doi:10.1029/2010JF001751.

Scherler, D., **Bookhagen, B.**, Strecker, M.R. (2011): Spatially variable response of Himalayan glaciers to climate change affected by debris cover, *Nature Geoscience*, doi:10.1038/ngeo1068

Hain, M., Strecker, M.R., **Bookhagen B.**, Alonso, R.N., Pingel, H., Schmitt, A.K. (2011): Neogene to Quaternary broken-foreland formation and sedimentation dynamics in the Andes of NW Argentina (25S), *Tectonics*, doi:10.1029/2010TC002703.

Bookhagen, B. and Burbank, D.W. (2010): Towards a complete Himalayan hydrologic budget: The spatiotemporal distribution of snow melt and rainfall and their impact on river discharge, *Journal of Geophysical Research-Earth Surface*, doi:10.1029/2009jf001426.

Bookhagen, B. (2010): Appearance of extreme monsoonal rainfall events and their impact on erosion in the Himalaya, *Geomatics, Natural Hazards, Risk*.

Perroy, R., **Bookhagen, B.**, Asner, G., Chadwick, O. (2010): Comparison of gully erosion estimates using airborne and ground-based LiDAR, *Geomorphology*, doi:10.1016/j.geomorph.2010.01.009.

Rehak, K., **Bookhagen, B.**, Strecker, M.R., Echtler, H.P. (2010): Climatic controls on drainage-basin morphology – the western Andean flank between 15.5° and 41.5°S, *Earth Surface Processes and Landforms*.

Scherler, D., **Bookhagen, B.**, Strecker, M.R., von Blanckenburg, F. and Rood, D. (2010): Timing and Extent of Late Quaternary Glaciation in the western Himalaya constrained by ¹⁰Be Moraine Dating in Garhwal, India, *Quaternary Science Reviews*, doi:10.1016/j.quascirev.2009.11.031.

Wulf, H., **Bookhagen, B.**, and Scherler, D. (2010): Seasonal precipitation gradients and their impact on fluvial sediment flux in the Northwest Himalaya, *Geomorphology*, doi:10.1016/j.geomorph.2009.12.003.

Hren, M., **Bookhagen, B.**, Blisniuk, P., Booth, A., Chamberlain, C.P (2009): d18O and dD of streamwater across the Himalaya and Tibetan Plateau: Implications for moisture sources and paleoelevation reconstructions, *Earth and Planetary Science Letters*, 288, 1-2, 20-32.



- Strecker, M.R., Alonso, R., **Bookhagen, B.**, Carrapa, B., Coutand, I., Hain, H.P., Hilley, G.E., Mortimer, E., Schoehnbohm, L., and Sobel E.R. (2009): Does the topographic distribution of the central Andean Pune Plateau result from climatic or geodynamic processes, *Geology*, 37, 7, doi:10.1130/G25545A.1.
- Melnick, D., **Bookhagen, B.** Strecker, M.R., Echtler, H.P. (2009): Segmentation of megathrust rupture zones from fore-arc deformation patterns over hundreds to millions of years, Arauco Peninsular, Chile, *Journal of Geophysical Research-Earth Surface*, 114, B01407, doi:10.1029/2008JB005788.
- Thiede, R.C., Ehlers, T.A., **Bookhagen, B.**, Strecker, M.R. (2009): Erosional Variability along the NW Himalaya margin, *Journal of Geophysical Research-Earth Surface*, 114, F01015, doi:10.1029/2008JF001010.
- Bookhagen, B.** and Strecker, M.R. (2008): Orographic barriers, high-resolution TRMM rainfall, and relief variations along the eastern Andes, *Geophysical Research Letters*, 35, L06403, doi:10.1029/2007GL032011.
- Gabet, E.J., Burbank, D.W., Pratt-Sitaula, B., Putkonen, J., **Bookhagen, B.** (2008): Modern erosion rates in the High Himalayas of Nepal, *Earth and Planetary Science Letters*, 267, 482-494.
- Strecker, M.R., Alonso, R.N., **Bookhagen, B.**, Carrapa, B., Hilley, G.E., Sobel, E., and Trauth, M.H. (2007): Tectonics and Climate of the Southern Central Andes, *Annual Reviews of Earth and Planetary Sciences*, doi:10.1146/annurev.earth.35.031306.140158.
- Craddock, W., Burbank, D.W., **Bookhagen, B.**, Gabet, E. (2007): Bedrock channel geometry along an orographic rainfall gradient in the upper Marsyandi River valley in central Nepal, *Journal of Geophysical Research-Earth Surface*, 112, F03007, doi:10.1029/2006JF000589.
- Hren, M.T., Chamberlain, P., Hilley, G.E., **Bookhagen, B.** (2007): Major ion chemistry of the Yarlung Tsangpo/Brahmaputra river: Chemical weathering, erosion, and CO₂ consumption in the southern Tibetan Plateau and Eastern Syntaxis of the Himalaya, *Geochemica et Cosmochimica acta*, 71, 2907-2935.
- Grujic, D., Coutand, I., **Bookhagen, B.**, Bonnet, S., Blythe, A., Duncan, C. (2006): Climatic forcing of erosion, landscape, and tectonics in the Bhutan Himalayas, *Geology*, 34 (10), 801-804.
- Bookhagen, B.**, Echtler, H.P., Melnick, D., Strecker, M.R., Spencer, J.Q.G. (2006): Using uplifted Holocene beach berms for paleoseismic analysis on the Santa María Island, south-central Chile, *Geophys. Res. Lett.*, 33, L15302, doi:10.1029/2006GL026734.
- Melnick, D., **Bookhagen, B.**, Echtler, H.P., Strecker, M.R. (2006): Coastal deformation and great subduction earthquakes: Isla Santa María, Chile (37°S), *GSA Bulletin*, 118, (9/10), doi:10.1130/B25865.1.
- Bookhagen, B.**, Fleitmann, D., Nishiizumi, K., Strecker, M.R., Thiede, R.C. (2006): Holocene Monsoonal dynamics and fluvial terrace formation in the northwest Himalaya, India, *Geology*, 34 (7), 601-604.
- Thiede, R.C., Arrowsmith, R., **Bookhagen, B.**, McWilliams, M., Sobel, E., and Strecker, M. (2006): Dome formation and extension in the Tethyan Himalaya, Leo Pargil, northwest India, *GSA Bulletin*, 118 (5/6), 635-650, doi:10.1130/B25872.1.
- Bookhagen, B.** and Burbank, D.W. (2006): Topography, Relief, and TRMM-derived rainfall variations along the Himalaya, *Geophys. Res. Lett.*, 33, L08405, doi:10.1029/2006GL026037. [selected as AGU Editor's Choice in May 2006]
- Thiede, R.C., **Bookhagen, B.**, Arrowsmith, J.R., Sobel, E.R., Strecker, M.R. (2004): Climatic control on rapid exhumation along the Southern Himalayan Front, *Earth and Planetary Science Letters*, 222 (3-4), 791-806.
- Bookhagen, B.**, Thiede, R.C., Strecker, M.R. (2005): Late Quaternary intensified monsoon phases control landscape evolution in the northwest Himalaya, *Geology*, 33 (2), 149-152.
- Bookhagen, B.**, Thiede, R.C., Strecker, M.R. (2005): Abnormal Monsoon years and their control on erosion and sediment flux in the high, arid northwest Himalaya, *Earth and Planetary Science Letters*, 231, 131-146.



- Thiede, R.C., Arrowsmith, R., **Bookhagen, B.**, McWilliams, M., Sobel, E., and Strecker, M.R. (2005): From tectonically to erosionally controlled development of the Himalayan orogen, *Geology*, 33(8), 689-692.
- Trauth, M.H., **Bookhagen, B.**, Mueller, A., Strecker, M.R. (2003): Late Pleistocene Climate Change and Erosion in the Santa Maria Basin, NW Argentina, *Journal of Sedimentary Research*, 73 (1), 82-90.
- Trauth, M.H., **Bookhagen, B.**, Marwan, N., Strecker, M.R. (2003): Multiple landslide clusters record Quaternary climate changes in the northwestern Argentine Andes, *Palaeogeography, Palaeoclimatology, Palaeoecology*, 194, 109-121.
- Bergner, A.G., Trauth, M.H., **Bookhagen, B.** (2003): Magnitude of precipitation / evaporation changes in the Naivasha Basin (Kenya) during the last 150 kyr, *Global and Planetary Change*, 36 (1-2), 117-135.



CURRICULUM VITAE

Name: Leila M. Véspoli de Carvalho

Rank: Assistant Professor IV

Education: PhD, 1998, Department of Atmospheric Sciences, Institute of Astronomy, Geophysics and Atmospheric Sciences, University of Sao Paulo,.

Academic Appointments:

(2008-Present): Assistant Professor, Department of Geography, University of California Santa Barbara

(1998-2008): Assistant Professor, Department of Atmospheric Sciences, University of Sao Paulo, Brazil

(1988-1998): Lecturer, Department of Atmospheric Sciences, University of Sao Paulo, Brazil)

(1987): Meteorologist, *Fundação Centro Tecnológico de Hidráulica (FCTH), Sao Paulo, Brazil)*

Honors and Awards:

Fellowship award for highly productive faculty: *Conselho Nacional de Pesquisa (CNPq)*, (Brazil) (2002-2008)

Fundação de Amparo a Pesquisa do Estado de Sao Paulo (FAPESP) fellowship: 2000-2001

Professional Activities:

Editorial Board, Meteorological Applications, Royal Meteorological Society.

Ad Hoc committee, *Fundação de Amparo a Pesquisa do Estado de Sao Paulo (FAPESP)*

Ad Hoc committee, *Conselho Nacional de Pesquisa (CNPq)*

Extramural Support:

- 2011-2013: The Madden-Julian Oscillation and Predictability of Extreme Precipitation in the United States. **NSF** 1053294 Co-PI
- 2011-2013: Climate variability and impacts on regional surface runoff in High Asia Mountains. **NSF** 1116105 (PI)
- 2011-2012: RAPID: Decadal Variability of the American Monsoons--An Assessment of CMIP5 Simulation. **NSF** 1126804. (PI)
- 2010-2013: An integrated view of the American Monsoon Systems: observations, models and probabilistic forecasts. **NOAA** (PI)
- 2009-2011: Tropics-extratropics interactions: impacts in the atmospheric circulation and temperature in the Antarctica Peninsula. **FAPESP, Brazil** (PI)
- 2008-2011: Tropics-Extratropics Interactions in the Southern Ocean and implications for the Antarctic sea ice. **FAPESP, Brazil** (PI)
- 2008-2011: Probabilistic Forecasts of Extreme Events and Weather Hazards over the United States, **NOAA**, (co-PI)
- 2008-2011: Collaborative Project: CLARIS-LPB A Europe-South America Network for Climate Assessment and Impact Studies in the hydroclimate of La Plata Basin. European-South American Consortium (co-PI)



- 2007-2010: Understanding the Mechanisms of Onset and Demise of the South American Monsoon System. **NOAA** (co-PI)
- 2007-2010: Tropics-Extratropics interactions and impacts in the Southern Ocean and South America. Conselho Nacional de Pesquisa, **CNPq, Brazil** (PI).
- 2006-2008: Variability of the South American Monsoon Regime: the present climate and projections for the XXI century. **FAPESP, Brazil** (PI)
- 2005-2009: Low frequency variability in precipitation and temperature over central-eastern Brazil and relationships with vegetation over the Brazilian Savanna: Diagnostic analysis and statistical modeling. **CNPq, Brazil** (PI)
- 2005-2009: Variability of Circulation and Moisture Transport in the South American Monsoon System. **FAPESP, Brazil** (PI)
- 2005-2009: An Investigation of Intraseasonal Oscillations in the Atmosphere and their Interannual Variations. **NOAA** (Co-PI)
- 2005-2007: Extreme variability in the Antarctic sea-ice and atmospheric circulations on intraseasonal timescales. **FAPESP, Brazil** (PI)
- 2005-2007: Tropics-Extratropics interactions and impacts for the Southern Hemisphere. Conselho Nacional de Pesquisa (**CNPq, Brazil**) (PI)
- 2005-2007: Extreme temperatures in the Antarctic Peninsula and Atmospheric Processes on intraseasonal timescales. **FAPESP, Brazil** (PI)
- 2004-2008: Collaborative project: Biosphere-atmosphere interactions fase-2: the Brazilian savanna and land use change. **FAPESP, Brazil** (co-PI)
- 2003-2005: Extreme precipitation in over Southern and Southeastern Brazil during the austral summer and relationships with the spatiotemporal variations of the South Atlantic Convergence Zone and the South Pacific Convergence Zone, **FAPESP, Brazil**
- 2003-2004: Decadal Variations in Tropical Intraseasonal Oscillations: Implications for the Pacific Sector. **NOAA: NA030AR4310067** (co-PI)
- 2002-2004: Extreme precipitations and droughts on multiple scales over Brazil: **FAPESP, Brazil**. 01/13154-9 (PI)
- 2000-2003: Variability of Extreme Precipitation Events in South America: An Assessment on Intraseasonal, Interannual and Decadal Time Scales. **NOAA NA16GP1020** (co-PI)
- 2000-2003: Statistical Forecasts of Intraseasonal and Seasonal Variations of Precipitation and Temperature in the United States. **NOAA NA16GP1019** (co-PI)
- 1999-2003: Collaborative project: Large-Scale Biosphere and Atmosphere - LBA. *Fundação do Amparo a Pesquisa do Estado de Sao Paulo, FAPESP, Brazil* (collaborator)

Publications:

Total number of scholarly publications: 39 publications(peer reviewed articles), 3 peer reviewed book chapters.

List of the five most significant articles:

Carvalho, L. M. V., A. E. Silva, C. Jones, B. Liebmann, P. L. Silva Dias, H. R. Rocha, 2010: Moisture transport and Intraseasonal Variability in the South America Monsoon System. *Climate Dynamics* ((DOI 10.1007/s00382-010-0806-2

Carvalho, L. M. V., C. Jones, A. E. Silva, B. Liebmann, P. L. Silva Dias, 2010: The South American Monsoon System and the 1970s climate transition. *Int. J. Climatol* (DOI: 10.1002/joc.2147) **Carvalho,**

Carvalho L. M. V., C. Jones, and T. Ambrizzi, 2005: Opposite phases of the Antarctic Oscillation and Relationships with Intraseasonal to Interannual activity in the tropics during the Austral Summer. *J. Climate*, **18**, 702-718

Carvalho, L. M. V., C. Jones, and B. Liebmann, 2004: The South Atlantic Convergence Zone: persistence, intensity, form, extreme precipitation and relationships with intraseasonal activity. *J. Climate*, **17**, 88-108.

Carvalho, L. M. V., C. Jones, B. Liebmann, 2002a: Extreme precipitation events in Southeastern South America and large-scale convective patterns in South Atlantic Convergence Zone. *J. Climate*, **15**, 2377-2394

Publications in the past nine years (excluding papers above):

Bombardi, R. J., and **Carvalho, L. M. V.**, 2011: The South Atlantic dipole and variations in the characteristics of the South American Monsoon in the WCRP-CMIP3 multimodel simulations. *Climate Dynamics*, 36, Issue 11 (2011), Page 2091-210, (DOI 10.1007/s00382-010-0836-9) (with student)

Jones, C., **L. M. V. Carvalho**, J. Gottschalck and W. Higgins, 2011: The Madden-Julian Oscillation and the relative value of deterministic forecasts of extreme precipitation in the contiguous United States. *Journal of Climate*, **24**, 2421-2428

Jones, C. and **L. M. V. Carvalho**, 2011: Stochastic simulations of the Madden-Julian Oscillation activity. *Climate Dynamics*, **36**, 229-246, (DOI 10.1007/s00382-009-0660-2)

Jones, C., J. Gottschalck, **L. M. V. Carvalho**, and W. Higgins, 2011: Influence of the Madden-Julian Oscillation on forecasts of extreme precipitation in the contiguous United States. *Monthly Weather Review*, 129, 332-349.

Jones, C., F. Fujioka and **L. M. V. Carvalho**, 2011: Forecast skill of synoptic conditions associated with Santa Ana winds in southern California. *Monthly Weather Review* **138**, 4528-4541.

Jones, C., and **L. M. V. Carvalho**, 2011: Will global warming modify the activity of the Madden-Julian Oscillation? *Quarterly Journal of the Royal Meteorological Society*, **137**, 544-552, DOI: 10.1002/qj.765.

Marengo, J., B. Liebmann, A. Grimm, V. Misra, P. L. Silva Dias, I. Cavalcanti, **L. M. V. Carvalho**, E. Berbery, T. Ambrizzi, C. Vera, J. Nogue-Paele, E. Zipser, A. Seth, 2010: Recent developments on the South American Monsoon System. *Int. Journal of Climatology*, DOI: 10.1002/joc.2254

Bombardi, R. J. and **Carvalho, L. M. V.**, 2009: IPCC Global coupled climate model simulations of the South America Monsoon System. *Climate Dynamics*, **33**, 893-916

Liebmann, B., G. N. Kiladis, D. Allured, C. Vera, C. Jones, **L. M. V. Carvalho**, P. Gonzalez, I. Blade, 2009: Subseasonal Variability of Precipitation in Northeast Brazil. *J. Climate*, **22**, 300-315.

Jones, C. and **L. M. V. Carvalho**, 2009: Stochastic simulations of the Madden-Julian Oscillation activity. *Climate Dynamics* (DOI 10.1007/s00382-009-0660-2).

Liebmann, B., G. N. Kiladis, **L. M. V. Carvalho**, C. Jones, C. S. Vera, I. Blade, D. Allured, 2009: Origin of Convectively Coupled Kelvin Waves over South America. *J. Climate* **22**, 300-315.

Muza, M. N., **L. M. V. Carvalho**, C. Jones, and B. Liebmann, 2009: Intraseasonal and Interannual variability of Extreme Dry and Wet Events over Southeastern South America and Subtropical Atlantic during the Austral Summer. *J. Climate*, **22**, 1682-1699 (paper with student)

Lima, F. U. F., and **L. M. V. Carvalho**, 2008: Extreme intraseasonal anomalies in the Amundsen-Bellinghousen sea ice extent during the Austral winter. *Annals of Glaciology*, **48**, 58-64. (paper with student)

Bombardi, R. J. and **L. M. V. Carvalho**, 2008: Variabilidade do regime de monções sobre a região do cerrado: o clima presente e projeções para um cenário com 2xCO₂ usando o modelo MIROC. *Rev. Bras. Meteor.* **23**, 58-72. (paper with student)

Carvalho, L. M. V., C. Vera and C. Jones, 2008: The main characteristics of intraseasonal variability in the South American Monsoon System (SAMS). WCRP Clivar VAMOS Newsletter 4, 7-10.

Silva, A. E., and **L. M. V. Carvalho**, 2007: Large-scale index for South America Monsoon (LISAM). *Atmospheric Science Letters*, **8**, 51-57, DOI: 10.1002/asl.150 (paper with student)

Carvalho, L. M. V., A. A. Tsonis, C. Jones, H. R. Rocha, P. S. Polito, 2007: Anti-persistence in global temperature anomaly. *Nonlinear Processes in Geophysics*, **14**, 723-733.

Jones, C., and **L. M. V. Carvalho**, 2006: Changes in the activity of the Madden-Julian oscillation during 1958-2004. *Journal of Climate*, **19**, 6353-6370.



- Silva, M. E. S., **Carvalho, L. M. V.**, Dias, M. A. F. S., Xavier, T. M. B. S. (2006) . Complexity and Predictability of Daily Precipitation in a Semi-Arid Region: an application to Ceará, Brazil , *Nonlinear Processes in Geophysics*, 13, 651-659.
- Liebmann, B., Camargo, S., Seth, A., Marengo, J., **Carvalho, L. M. V.**, Allured, D., Fu, and Vera, C. . Onset and End of the Rainy Season in South America in Observations and the ECHAM 4.5 Atmospheric General Circulation Model. *Journal of Climate*, 20,2037-2050
- Muza, M. N. ; **Carvalho, L. M. V.** 2006 . Variabilidade Intra-sazonal e inter-anual de Extremos na Precipitação sobre o Centro-Sul da Amazônia . *Revista Brasileira de Meteorologia*, 21, 29-41. (paper with student)
- Carvalho, L. M. V.**, C. Jones, and T. Ambrizzi, 2005: Opposite phases of the Antarctic Oscillation and Relationships with Intraseasonal to Interannual activity in the tropics during the Austral Summer. *J. Climate*,**18**,702-718
- Gonçalves, F. L. T., **L. M. V. Carvalho**, M. R.D.O. Latorre, F.C. Conde, P.H.N. Saldiva, A. L. F. Braga, 2005: The effects of atmospheric pollution and meteorological parameters on respiratory morbidity during the summer in São Paulo city. *Env. International*,**31**,343-349.
- Carvalho, L. M. V.**, C. Jones, and B. Liebmann, 2004: The South Atlantic Convergence Zone: persistence, intensity, form, extreme precipitation and relationships with intraseasonal activity. *J. Climate*,**17**, 88-108.
- Jones, C., **L. M. V. Carvalho**, R.W. Higgins, D. E. Waliser, J.K.E. Schemm, 2004a: Climatology of tropical intraseasonal convective anomalies 1979-2002. *J. Climate*,**17**,523-539.
- Jones, C., **L. M. V. Carvalho**, R.W. Higgins, D. E. Waliser, J.K.E. Schemm, 2004b: A Statistical forecast model of tropical intraseasonal convective anomalies. *J. Climate* ,**17**,2078-2095.
- Liebmann, B, G. N. Kiladis, C. S. Vera, A. C. Saulo, **L. M. V. Carvalho**, 2004a: Subseasonal variations of rainfall in the vicinity of the South American low-level jet stream and comparison to those in the South Atlantic Convergence Zone. *J. Climate*,**17**,3829–3842.
- Liebmann, B, C. S. Vera, **L. M. V. Carvalho**, A. C. Saulo, I. Camilloni, M. P. Hoerling, D. Allured, M. Bidegain, J. Baez, V. Barros, 2004b: An Observed Trend in Central South American Precipitation. *J. Climate* , 17, 4357-4367
- Carvalho, L. M. V.**, C. Jones, and M. A. F. Silva Dias, 2002b: Intraseasonal large-scale circulations and mesoscale convective activity in Tropical South America during the TRMM-LBA campaign. *J. Geoph. Res.* , **29**, 10.102/2001JD000745.
- Carvalho, L. M. V.**, D. Lavalleyé, and C. Jones, 2002c: Multifractal properties of evolving convective systems over tropical South America. *Geophysical Research Letters*,**29**,10.1029/2001GL014276).
- Jones, C. , and **L. M. V. Carvalho**, 2002:Active and break phases in the South American Monsoon System. *J. Climate*, **15**, 905-914.
- Nieto-Ferreira, R., D. L. Herdies, T. M. Rickenbach, and **L. M. V. Carvalho**,2003: Variability of South American convective cloud systems and tropospheric circulation during January-March 1998 and 1999. *Mon. Wea. Rev.* 131, 961–973.



CURRICULUM VITAE

Name: Oliver A. Chadwick
Rank: Professor

Education:

- Ph.D. 1985 Soil and Water Science, University of Arizona, Tucson, AZ
- M.S. 1976 Horticulture and Soil Fertility, Cornell University, Ithaca, NY
- B.S. 1971 Biology, George Washington University, Washington, D.C.

Academic Appointments:

- 1998-Present Professor, Department of Geography, and The Environmental Studies Program, University of California, Santa Barbara.
- 2006-2009 Chair, Department of Geography, University of California, Santa Barbara
- 1997-1998 Associate Professor, Department of Geography, and The Environmental Studies Program, University of California, Santa Barbara.
- 1995-1997 Assistant Professor, Department of Geography, and The Environmental Studies Program, University of California, Santa Barbara.
- 1993-1995 Jet Propulsion Laboratory, Pasadena, CA, Supervisor: Hydrology, Soils, and Ecosystems Group
- 1987-1993 Jet Propulsion Laboratory, Pasadena, CA, Geology Group, Research Scientist.

Honors and Awards:

- Visiting Professor at the California Institute of Technology, Pasadena, CA, 1991-1992
- Visiting Miller Research Professor, University of California, Berkeley, CA, 1994
- Fellow, Soil Science Society of America, 2006
- Fellow, American Association for the Advancement of Science, 2008
- Cox Visiting Professor in Earth System Science, Stanford University, 2010
- Fellow, American Geophysical Union, 2011

Professional Activities:

Years	Position	Type of Service
2003	Member of Steering Committee for joint USGS-University of Arizona Earth Processes Research Center	Worked with 16 scientists to developed a white paper describing the critical Quaternary geochronological tools that should be represented by researchers in the center.
2003	Organizing Committee for a NSF Sponsored Workshop to develop a Consortium on Weathering System Science.	Developed concepts and organizing principals governing the initiation of a scientific community based Consortium for sponsoring and enabling collaborative research in the areas of mineral weathering, soil development, and ecosystem processes. The Consortium is supported by NSF and follows from a series of community meetings dating back to 1999. The resulting white paper was published in EOS.
2005	Organizing Committee for a NSF Sponsored Workshop to develop a Consortium on Weathering System Science.	Refined implementation strategies for the Weathering System Science Consortium and made formal presentation of program goals and fit to NSF Program Managers.
2005-2010	Member of the US National Committee for Soil Science (USNC/SS)	The USNC/SS advises the National Academy of Sciences on national and international matters related to soil science. It is the US representative in international matters related to soil science.
2006-2008	Member of the Steering Committee for NSF CZEN	NSF has sponsored development of a Critical Zone Exploration Network and I was asked to serve on its steering committee.

Participation in Campus Governance:

- Member of the Academic Senate Committee on Academic Personal, 2002 – 2005.
- Vice Chair, Geography Department, 2005 – 2006.
- Chair, Geography Department, 2006-2009
- Member of the Academic Senate Committee on Committees, 2011

Extramural Support: (selected list)

1. Principal Investigator. 2003-2005. The Template of Kruger National Park: 3-D Modeling of Plant-Soil-Landscape Relationships. Andrew Mellon Foundation \$200,000.
2. Principal Investigator 2003-2005. The Oxidation State of Soil Organic Carbon: A New Proxy for Carbon Storage Mechanisms and Land Use Change. Kearney Foundation of Soil Science, \$70,000.
3. Principal Investigator. 2003-2006. Investigating Ge/Si as a Tracer for Terrestrial Silicon Cycling. NSF-EAR, \$120,000.
4. Principal Investigator. 2004-2006. Modeling Landscape Dynamics and Ecosystem Processes in Kruger National Park. Andrew Mellon Foundation \$200,000.
5. Principal Investigator. 2005-2009. Si Isotope Fractionation during rock weathering. NSF-EAR, \$183,000.
6. Principal Investigator. 2006-2007. Erosion as an Ecosystem Agent. Andrew Mellon Foundation \$45,000.
7. Principal Investigator. 2006-2009. Long-term Dynamics of Population Growth, Agricultural Intensification, and Sociopolitical change: Hawaii as a Model Ecosystem (1200-200 yr BP). NSF, \$105,000.
8. Principal Investigator. 2006-2009. Nutrients in Landscapes. Andrew Mellon Foundation, \$276,000.
9. Principal Investigator. 2006-2010. HSD: Collaborative Research: Long-Term Dynamics of Population Growth, Agricultural Intensification, and Sociopolitical Change: Hawai'i as a Model System. NSF, \$105,000
10. Principal Investigator, 2007-2011. Pre-Contact Intensive Agriculture and Society in Kohala, Hawai'i. NSF, \$139,000.
11. Principal Investigator, 2007-2010. Disturbance, Succession, and Nutrient Availability: Patterns, Mechanisms, Interactions. NSF, \$130,000
12. Principal Investigator, 2007-2010. Collaborative Research: Ecological Controls on Biogenic Silica in Grasslands - The Role of Long-term Fire and Grazing History on Two Continents. NSF, \$105,000.
13. Principal Investigator 2007-2008. Aeolian Additions: The downwind effects on Soil and Vegetation in Owens Valley. Kearney Foundation, \$84,000.
14. Principal Investigator 2008-2009. Modeling Soil Moisture in California at Multiple Scales. Kearney Foundation of Soil Science, \$84,000.
15. Co-Principal Investigator 2009-2010. Evaluating Rapa Nui Prehistoric Resource Degradation. NSF, \$97,000.
16. Principal Investigator 2010-2013. Landscape control of Savanna Heterogeneity. Andrew Mellon Foundation, \$180,000.
17. Principal Investigator 2010-2013. Soil Thresholds and Process Domains: Controls, Distribution and Implications. NSF Emerging Topics in Biogeochemistry, \$480,000

Publications: Total publications: 156; Total Citations (5/6/11, Google Scholar): 4965; H-Index 38**Five most significant articles:** (# of Citations)

1. Chadwick, O.A., L.A. Derry, P.M. Vitousek, B.M Huebert, and L.O. Hedin. 1999. Changing sources of nutrients during four million years of ecosystem development. *Nature* 397: 491-497. (382)
2. Trumbore, S.E., O.A. Chadwick, and R.G. Amundson. 1996. Rapid exchange between soil carbon and atmospheric CO₂ driven by temperature change. *Science* 272: 393-396. (329)
3. Torn, M.S., S.E. Trumbore, O.A. Chadwick, P.M. Vitousek, and D.M. Hendricks. 1997. Mineral control of soil organic carbon storage and turnover. *Nature* 389: 170-173. (318)
4. Chadwick, O.A. and J. Chorover. 2001. The chemistry of pedogenic thresholds. *Geoderma* 100: 321-353. (73)
5. Derry, L.A., A.C. Kurtz, K. Ziegler, and O.A. Chadwick. 2005. Biological control of terrestrial silica cycling and export fluxes to watersheds. *Nature* 433: 728-731 (92)

Publications since 2002 (selective list):

1. Kurtz, A.C., L.A. Derry, and O.A. Chadwick. 2002. Germanium – Silicon fractionation in the weathering environment. *Geochimica et Cosmochimica Acta* 66: 1525-1537.
2. Chamran, F., P.E. Gessler, and O.A. Chadwick. 2002. A spatially explicit treatment of soil-water dynamics along a semiarid catena. *Soil Science Society of America Journal* 66: 1571-1583.
3. Sharp WD, KR Ludwig, OA Chadwick, R Amundson, LL Glaser. 2003. Dating fluvial terraces by ²³⁰Th/U on pedogenic carbonate, Wind River Basin, Wyoming. *Quaternary Research* 59: 139-150.
4. Chadwick, O.A., R.T. Gavenda, E.F. Kelly, K. Ziegler, C.G. Olson, W.C. Elliott, and D.M. Hendricks. 2003. The impact of climate on the biogeochemical functioning of volcanic soils. *Chemical Geology* 202: 195-223.
5. Ziegler, K., J.C.C. Hsieh, O.A. Chadwick, E.F. Kelly, D.M. Hendricks and S.M. Savin. 2003. Halloysite as a kinetically controlled end product of arid-zone basalt weathering. *Chemical Geology* 202: 461-478.
6. Vitousek, P., O. Chadwick, P. Matson, S. Allison, L. Derry, L. Kettley, A. Luers, E. Menking, V. Monastera, and S. Porder. 2003. Erosion and the rejuvenation of weathering derived nutrient supply in an old tropical landscape. *Ecosystems* 6: 762-772.
7. Quideau, S.A., R.C. Graham, X. Feng, and O.A. Chadwick. 2003. Natural isotopic distribution in soil surface horizons differentiated by vegetation. *Soil Science Society of America Journal* 67: 1544-1550.
8. García, A. F., Zhu, Z., Ku, T. L., Chadwick, O. A., and Chacon Montero, J., 2004. An Incision wave in the geologic record, Alpujarran Corridor, southern Spain (Almería). *Geomorphology* 60: 37-72
9. Holmes, K.W., D.A. Roberts, S. Sweeney, I. Numata, E. Matricardi, T.W. Biggs, G. Batista, O.A. Chadwick. 2004. Soil databases and the problem of establishing regional biogeochemical trends. *Global Change Biology* 10: 796-814.
10. Okin, G.S., N. Mahowald, O.A. Chadwick, and P. Artaxo. 2004. The impact of desert dust on the biogeochemistry of phosphorus in terrestrial ecosystems. *Global Biogeochemical Cycles* 18, GB2005, doi:10.1029/2003GB002145.

11. Chorover, J., M.K. Amistadi, and O.A. Chadwick. 2004. Surface charge evolution of mineral-organic complexes during pedogenesis in Hawaiian basalt. *Geochimica et Cosmochimica Acta* 68: 459-476.
12. Masiello, C.A., O.A. Chadwick, J. Southon, M.S. Torn, and J.W. Harden. 2004. Mechanisms of carbon storage in grassland soils. *Global Biogeochemical Cycles* 18: GB4023, doi:10.1029/2004GB002219, 2004.
13. Vitousek, P.M., T. Ladefoged, P.V. Kirch, A.S. Hartshorn, M. Graves, S.C. Hotchkiss, S. Tuljapurkar, and O.A. Chadwick. 2004. Soils, Agriculture, and Society in Precontact Hawai'i. *Science* 304: 1665-1669.
14. Kirch, P.V., A.S. Hartshorn, O.A. Chadwick, P. M. Vitousek, D.R. Sherrod, J. Coil, L. Holm, and W.D. Sharp. 2004. Environment, agriculture, and settlement patterns in a marginal Polynesian landscape. *PNAS* 101: 9936-9941.
15. Huh, Y. L.H. Chan, and O.A. Chadwick. 2004. Behavior of lithium and its isotopes during weathering of Hawaiian basalt. *Geochem., Geophys. Geosyst.* 5: Q09002, doi:10.1029/2004GC000729.
16. Monasta, V., L.A. Derry, and O.A. Chadwick. 2004. Multiple sources of lead in soils from a Hawaiian chronosequence. *Chemical Geology* 209: 215-231.
17. Scull, P., J. Franklin, and O.A. Chadwick. 2005. The application of classification tree analysis to soil type prediction in a desert landscape. *Ecological Modeling* 181: 1-15.
18. Scull, P., G. Okin, O.A. Chadwick, and J. Franklin. 2005. A comparison of methods to predict soil surface texture in an alluvial basin. *The Professional Geographer* 57: 423-437.
19. Wiegand B.A., O.A. Chadwick, P.M. Vitousek, and J.L. Wooden. 2005. Calcium cycling and isotope fractionation processes in terrestrial ecosystems. *Geophysical Research Letters* 32: L11404, doi:10.1029/2005GL022746, 2005.
20. Holmes, K.W., P.C. Kyriakidis, O.A. Chadwick, J.V. Soares, and D.A. Roberts. 2005. Tropical land-cover change impacts on multi-scale soil nutrient variability. *Biogeochemistry* 74: 173-203.
21. Fierer, N., O.A. Chadwick, and S.E. Trumbore. 2005. Production of CO₂ in soil profiles of a California annual grassland. *Ecosystems* 8: 412-429.
22. Ziegler, K., O.A. Chadwick, M.A. Brzezinski, and E.F. Kelly. 2005. Natural variation of $\delta^{30}\text{Si}$ ratios during progressive basalt weathering, Hawaiian Islands. *Geochim Cosmochim Acta* 69: 4597-4610.
23. Ziegler, K., O.A. Chadwick, A.F. White, and M.A. Brzezinski. 2005. $\delta^{30}\text{Si}$ systematics in a granitic saprolite, Puerto Rico. *Geology* 33: 817-820.
24. Thompson, A., O.A. Chadwick, D.G. Rancourt, and J. Chorover. 2006. Iron crystallinity increases during soil redox oscillations. *Geochimica et Cosmochimica Acta* 70: 1710-1727.
25. Scribner, A.M., A.C. Kurtz, and O.A. Chadwick. 2006. Germanium sequestration by soil: Targeting the roles of secondary clays and Fe-oxides. *Earth and Planetary Sci. Lett.* 243: 760-770.
26. Hartshorn, A.S., O.A. Chadwick, P.M. Vitousek and P.V. Kirch. 2006. Prehistoric agricultural depletion of soil nutrients in Hawaii. *PNAS*: 103: 11092-11097.
27. Holmes, K.W., O.A. Chadwick, P.C. Kyriakidis, E.P. Silva de Filho, J. Viane, and D.A. Roberts. 2006. Large area, spatially explicit estimates of tropical soil carbon stocks and response to land-cover change. *Global Biogeochemical Cycles* 20: GB3004, doi:10.1029/2005GB002507.
28. Thompson, A., O.A. Chadwick, S. Boman, and J. Chorover. 2006. Colloid mobilization during soil iron redox oscillations. *Environmental Science and Technology* 40: 5743-5749.
29. Blecker, S.W., R.L. McCulley, O.A. Chadwick and E.F. Kelly. 2006. Biologic cycling of silica across a grassland bioclimate sequence. *Global Biogeochemical Cycles* 20, GB3023, doi:10.1029/2006GB002690.
30. Chadwick, O.A., E.F. Kelly, S.C. Hotchkiss, and P.M. Vitousek. 2007. Precontact vegetation and soil nutrient status in the shadow of Kohala Volcano, Hawaii. *Geomorphology* 89: 70-83
31. Porder, S., P.M. Vitousek, O.A. Chadwick, C.P. Chamberlain, and G.E. Hilley. 2007. Uplift, erosion, and phosphorus limitation in terrestrial ecosystems. *Ecosystems* 10: 158-170.
32. Thompson, A., J. Ruiz, O.A. Chadwick, M. Titus, and J. Chorover. 2007. Rayleigh fractionation of iron isotopes during pedogenesis along a climate sequence of Hawaiian basalt. *Chemical Geology* 238: 72-83.
33. Porder, S., G.E. Hilley, and O.A. Chadwick. 2007. Chemical weathering, mass loss, and dust input across a climate by time matrix in the Hawaiian Islands. *Earth Planet. Science Letters* 258: 414-427.
34. Numata, I., D.A. Roberts, Y. Sawada, O.A. Chadwick, J.P. Schimel, and J.V. Soares. 2007. Regional characterization of pasture changes through time and space in Rondonia, Brazil. *Earth Interactions* 11: 1-25.
35. Dauer, J.M., J. Chorover, O.A. Chadwick, J. Oleksyn, M.G. Tjoelker, S.E. Hobbie, P.B. Reich, and D.M. Eissenstat. 2007. Controls over leaf and litter calcium concentrations among temperate trees. *Biogeochemistry* 86: 175-187.
36. Blecker, S.W., S.L. King, L.A. Derry, O.A. Chadwick, J.A. Ippolito, and E.F. Kelly. 2007. The ratio of germanium to silicon in plant phytoliths: quantification of biological discrimination under controlled experimental conditions. *Biogeochemistry* 86: 189-198.
37. Derry, L.A. and O.A. Chadwick. 2007 Contributions from Earth's atmosphere to soil. *Elements* 3: 333-338.
38. Hobbie, S.E., M. Ogdahl, J. Chorover, O.A. Chadwick, J. Oleksyn, R. Zytowskiak, and P.B. Reich. 2007. Tree species effects on soil organic matter dynamics: The role of soil cation composition. *Ecosystems* 10: 999-1018.
39. Numata, I., D.A. Roberts, O.A. Chadwick, J. Schimel, F. F. Sampaio, F.C. Leonidas, and J.V. Soares. 2008. Characterization of pasture biophysical properties and the impact of grazing intensity using remotely sensed data. *Remote Sensing of the Environment* 12: 1569-1583.
40. Masiello, C.A., M.E. Gallagher, J.T. Randerson, R.M. Deco, and O.A. Chadwick. 2008. Evaluating two experimental

- approaches for measuring ecosystem carbon oxidation state and oxidative ratio. *Journal of Geophysical Research-Biogeosciences* 113, G03010, doi:10.1029/2007JG000534
41. Porder, S. and O.A. Chadwick. 2009. Climate and soil-age constraints on nutrient uplift and retention by plants. *Ecology* 90: 623-636.
 42. Mikutta, R., G.E. Schaumann, D. Gildemeister, S. Bonneville, M.G. Kramer, J. Chorover, O.A. Chadwick, and G. Guggenberger. 2009. Biogeochemistry of mineral-organic associations across a long-term mineralogical soil gradient (0.3-4100 kyr), Hawaiian Islands. *Geochimica et Cosmochimica Acta* 73: 2034-2060.
 43. Dauer, J.M., J.M. Withington, J. Oleksyn, J. Chorover, O.A. Chadwick, P.B. Reich, and D.M. Eissenstat. 2009. A scanner-based approach to soil profile-wall mapping of root distribution. *Dendrobiology* 62: 35-40.
 44. Hockaday, W.C., C.A. Masiello, J.T. Randerson, R.J. Smernik, J.A. Baldock, O.A. Chadwick, and J.W. Harden. 2009. Measurement of soil carbon oxidation state and oxidative ratio by ¹³C nuclear magnetic resonance. *Journal of Geophysical Research* 114, G02014, doi:10.1029/2008JG000803.
 45. Chadwick, O.A., L.A. Derry, C.R. Bern, and P.M. Vitousek. 2009. Changing sources of Sr to soils and ecosystems across the Hawaiian Islands. *Chemical Geology* 267: 64-76.
 46. Palmer, M.A., M. Graves, T.N. Ladefoged, O.A. Chadwick, T. Ka'eo Duarte, S. Porder, and P.M. Vitousek. 2009. Sources of nutrients to windward agricultural systems in pre-contact Hawai'i. *Ecological Applications* 19: 1444-1453.
 47. Ladefoged, T.N., P.V. Kirch, S.M. Gon III, O.A. Chadwick, A.S. Hartshorn, and P.M. Vitousek. 2009. Opportunities and Constraints for intensive agriculture in the Hawaiian archipelago prior to European contact. *Journal of Archeological Science* 36: 2374-2383.
 48. Hartshorn, A.S., C. Coetsee, and O.A. Chadwick. 2009. Pyromineralization of soil phosphorus in a South African savanna. *Chemical Geology* 267: 24-31.
 49. Vitousek, P., G.P. Asner, O.A. Chadwick, and S. Hotchkiss. 2009. Landscape-level variation in forest structure and biogeochemistry across a substrate age gradient in Hawaii. *Ecology* 90: 3074-3086.
 50. Mikutta, R., K. Kaiser, N. Dorr, A. Vollmer, O.A. Chadwick, J. Chorover, M.G. Kramer, and G. Guggenberger. 2010. Mineralogical impact on organic nitrogen across a long-term soil chronosequence (0.3-4100 kyr). *Geochimica et Cosmochimica Acta* 74: 2142-2164.
 51. Perroy, R.L., B. Bookhagen, G.P. Asner, and O.A. Chadwick. 2010. Comparison of gully erosion estimates using airborne and ground-based LiDAR on Santa Cruz Island, California. *Geomorphology* 118: 288-300.
 52. Bern, C.R., M.A. Brzezinski, C. Beucher, K. Ziegler, and O.A. Chadwick. 2010. Weathering, dust, and biocycling effects on soil silicon isotope ratios. *Geochimica et Cosmochimica Acta* 74: 876-889.
 53. Vitousek, P.M., S. Porder, B.Z. Houlton, and O.A. Chadwick. 2010. Terrestrial phosphorus limitation: mechanisms, implications, and nitrogen-phosphorus interactions. *Ecological Applications* 20: 5-15.
 54. Vitousek, P.M., O.A. Chadwick, G. Hilley, P.V. Kirch, and T.N. Ladefoged. 2010. Erosion, geological history, and indigenous agriculture: A tale of two valleys. *Ecosystems* 13: 782-793. DOI: 10.1007/s10021-010-9354-1.
 55. Peltzer, D.A., D.A. Wardle, V.J. Allison, T.W. Baisden, R.D. Bardgett, O.A. Chadwick, L.M. Condron, R.L. Parfitt, S. Porder, S.J. Richardson, B.L. Turner, P.M. Vitousek, J. Walker, and L.R. Walker. 2010. Understanding ecosystem retrogression. *Ecological Monographs* 80:509-529. [doi:10.1890/09-1552.1]
 56. Levick, S.R., G.P. Asner, O.A. Chadwick, L.M. Khomo, K.H. Rogers, A.S. Hartshorn, T. Kennedy-Bowdoin, and D.E. Knapp. 2010. Hydro-geomorphic controls on savanna vegetation: Regional insight from termite mounds. *Nature Communications* | 1:65 | DOI: 10.1038/ncomms1066.
 57. Khomo, L.M., A.S. Hartshorn, K. H. Rogers, and O.A. Chadwick. 2011. Impact of rainfall on soil property distribution in granitic catenas of southern Africa. *Catena* (in press).
 58. Quick D.J. and O.A. Chadwick. 2011. Impact of dust from Owens Lake Playa on nearby alluvial soils. *Aeolian Research* (in press).
 59. Bern, C.R., O.A. Chadwick, A.S. Hartshorn, L.M. Khomo, and J. Chorover. 2011. Quantifying colloidal and solute mass redistribution along a granitic catena. *Chemical Geology* 282: 113-119.
 60. Thompson, A., D.G. Rancourt, O.A. Chadwick, and J. Chorover. 2011. Iron solid-phase differentiation along a redox gradient in basaltic soils. *Geochimica et Cosmochimica Acta* 75:119-133.
 61. Kramer, M.G., J. Sanderman, O.A. Chadwick, J. Chorover, and P.M. Vitousek. 2011. Sorption of dissolved oxidized lignin to reactive particles controls long-term carbon storage in soil. *Earth and Planetary Science Letters* (in press)
 62. Marin-Spiotta, E., O.A. Chadwick, M. Kramer, and M.S. Carbone. 2011. Carbon delivery to deep mineral horizons in Hawaiian rainforest soils. *JGR-Biogeoscience* (in press)
 63. Kellner, J.R., G.P. Asner, P.M. Vitousek, M.A. Twitten, S. Hotchkiss, and O.A. Chadwick. 2011. Dependence of forest structure and dynamics on substrate age and ecosystem development. *Ecosystems* (in press)
 64. Melzer, S.E., O.A. Chadwick, A.S. Hartshorn, L.M. Khomo, A.K. Knapp and E.F. Kelley. 2011. Lithologic Controls on Biogenic Silica Cycling in South African Savanna Ecosystems. *Biogeochemistry* DOI:10.1007/s10533-011-9602-2



CURRICULUM VITAE

Name: Richard L. Church

Rank: Professor

Education: PhD 1974, The Johns Hopkins University
B.S. 1970, Lewis and Clark College

Academic Appointments:

1982 Professor of Geography, UCSB

1981 Associate Professor of Geography, UCSB

1979 Associate Professor of Civil and Environmental Engineering, UT-Knoxville

1974 Assistant Professor of Civil and Environmental Engineering, UT-Knoxville

Honors and Awards: elected Fellow of AAAS in 2009 and elected Fellow of RSAI in 2009

Professional Activities: member of the editorial boards of *Geographical Analysis*, *Socio-Economic Planning Sciences*, and *International Regional Science Review*. Member of AAG, Informs, and RSAI

Participation in

Campus Governance: currently serves as the Chair of the Chancellor's Parking Ratepayers Board and the Letters and Science Council of Deans. Appointed Associate Dean of Math, Life, and Physical Sciences, 2010.

Extramural Support (202-2011):

USDA Forest Service, Fuels Treatment and Habitat Protection, P.I., 2002-2002, \$10,000.

USDA Forest Service, Fuels Treatment and Habitat Protection, P.I., 2002-2003, \$94,369.

California Department of Transportation, Translating GIS Street Network Files for use with Paramics, P.I., 2002-2003, \$65,000.

Caltrans/PATH (Partners in Advanced Transit and Highways), P.I. 2004-2005, \$83,000.

USDA Forest Service, Fuels Treatment and Habitat Protection, P.I. 2004-present, 125,000.

USDA Forest Service, Scheduling Model Development, P.I., 2005-2006 \$30,000.

USDA Forest Service, Fuels, Treatment and Habitat protection (supplement) P.I. 2006-2007 \$10,000.

USDA Forest Service, Modeling forest management for habitat protection, P.I., 2/15/2007 to 2/15/2009, \$40,000.



USDOT, MeTrIS: metropolitan transportation system applying space based technologies for freight congestion mitigation, Co-P.I., 7/1/2007 to 6/30/2010, \$1,490,933.

CALTRANS, First Responder Support Systems Testbed (FiRST), P.I. ,8/1/2007 to 6/30/2010, \$1,296,000.,

USDA Forest Service, Modeling fuels treatments in US Forests, P.I., 3/1/2010-9/30/2011, \$40,000..

Argonne National Laboratory, Corridor Location: a preliminary assessment of multi-path alternative generation based upon the Kth shortest path method, P.I. 7/1/2010-12/31/2010, \$29,516.

Caltrans, First Responder Support Testbed (FiRST)-Phase II: Cross Cutting Cooperative Systems for emergency management, P.I. 5/12/2010-6/30/2012, \$1,150,000.

Publications: 204 publications

Five most significant articles or books:

Church, RL and AT Murray (2009) *Business Site Selection, Location Analysis, and GIS*, John Wiley & Sons Inc, Hoboken, NJ.

Church, R and C ReVelle (1974) "The maximal Covering location problem," *Papers of the Regional Science Association* 32: 101-118.

Church R and R Garfinkel (1978) "On locating an obnoxious facility: the maximum median problem," *Transportation Science* 12: 108-118.

Church, RL, DM Stoms, and FR Davis (1996) "Reserve site selection as a maximal covering location problem," *Biological Conservation* 76: 105-112.

Church RL and CS ReVelle (1976) "Theoretical and computational links between the p_{median}, location set covering, and the maximal covering location problem," *Geographical Analysis* 8: 406-415

Selected Scholarly Publications since 2002

Church R (2003) "COBRA: a new formulation for the classic p-median location problem," *Annals of Operations Research* 122; 103-120.

Fischer D and RL Church (2003) "Clustering and compactness in reserve site selection: an extension of the biodiversity management area selection model," *Forest Science* 49(4); 555-565.

Church RL and J Marston (2003) "Measuring accessibility for people with a disability," *Geographical Analysis* 35(1); 83-96.

Church RL, R Gerrard, P Stine, and M Gilpin (2003) "Constructing Cell-Based Habitat Patches Useful in Conservation Planning Patch," *Annals of the AAG* 93(4); 814-827.



- Church RL and R Gerrard (2003) "The Multi-Level Location Set Covering Model," *Geographical Analysis* 35(4); 277-289.
- Church RL, MP Scaparra, and R Middleton (2004) "Identifying Critical Infrastructure: the Median and Covering Facility Interdiction Problems," *Annals of the AAG* 94(3); 491-502.
- Scaparra MP and RL Church (2005) "A GRASP and path relinking heuristic for rural road network development," *Journal of Heuristics* 11; 89-108.
- Marston J and RL Church (2005) "A relative access measure to identify barriers to efficient transit use by persons with visual impairments," *Disability and Rehabilitation* 27; 769-779.
- Fischer D and RL Church (2005) "The SITES reserve selection system: a critical review," *Environmental Modeling and Assessment* 10; 215-228.
- Curtin K and RL Church (2006) "A Family of Location Models for Multiple-Type Discrete Dispersion," *Geographical Analysis* 38; 248-270.
- Snyder L, MP Scaparra, M Daskin and RL Church (2006) "Planning for Disruptions in Supply Chain Networks," *Tutorials in Operations Research*, INFORMS, 2006
- Church RL and MP Scaparra (2007) "Protecting Critical Assets: the r -interdiction median problem with fortification," *Geographical Analysis* 39; 129-146.
- Curtin K and RL Church (2007) "Optimal dispersion and central places," *Journal of Geographical Systems* 9; 167-187.
- Church RL and MP Scaparra (2007) "Analysis of facility systems' reliability when subject to attack or a natural disaster," in *Reliability and Vulnerability in Critical Infrastructure*, edited by A. Murray and T. Grubestic, Springer-Verlag.
- O'Hanley J, RL Church, and K Gilless (2007) "Locating and protecting critical reserve sites to minimize expected and worst case losses," *Biological Conservation* 134; 130-141.
- O'Hanley J, RL Church, and K Gilless (2007) "The importance of In Situ site loss in nature reserve selection: balancing notions of complementarity and robustness," *Biological Conservation* 135; 170-180.
- Murray, A, M O'Kelly, and RL Church (2008) "Regional Service Coverage Modeling," *Computers and Operations Research* 35; 339-355
- Church RL (2008) "BEAMR: an exact and approximate model for the p-Median Problem," *Computers and Operations Research* 35; 417-426.
- Church RL (2008) "Tactical level forest management models: bridging the gap between strategic and operational problems" in *Handbook on Operations Research in Natural Resources on Strategic Forest Planning*, edited by A. Weintraub, T. Bjordal, R. Epstein, and C. Romero Kluwer Press, 343-363.



Scaparra MP and RL Church (2008) “A bilevel mixed-integer program for critical infrastructure protection planning,” *Computers and Operations Research* 35; 1905-1923.

Scaparra MP and RL Church (2008) “An exact solution approach for the interdiction median problem with fortification,” *European Journal of Operational Research* 189; 76-92.

Ligmann-Zielinska A, RL Church and P. Jankowski (2008) “Spatial optimization as a generative technique for sustainable multiobjective land use allocation,” *International Journal of Geographical Information Science* 22; 601-622.

Peterson S and RL Church (2008) “A framework for modeling rail transport vulnerability,” *Growth and Change* 30; 617-641.

Church RL and AT Murray (2009) *Business Site Selection, Location Analysis, and GIS*, John Wiley & Sons Inc, Hoboken, NJ.

Zeng W and RL Church (2009) “Finding shortest paths on real road networks: the case for A*,” *International Journal of Geographical Information Science*, Vol. 23, No. 4, 531–543.

Murawski L and RL Church (2009) “Improving accessibility to rural health services: the maximal covering network improvement problem,” *Socio-Economic Planning Sciences* 43: 102-110.

Planning for a disaster: a review of the literature with a focus on transportation related issues, with Micah Barachman

Sorensen P and RL Church (2010) “Integrating expected coverage and local reliability for emergency medical services location problems,” *Socio-Economic Planning Sciences* 44: 8-18.

Losada C, MP Scaparra, and RL Church (2010) On a bi-level formulation to protect uncapacitated p-median systems with facility recovery time and frequent disruptions,” *Electronic Notes in Discrete Mathematics* 36: 591-598.

Lei T and RL Church (2010) “Mapping Transit-Based Access: Integrating GIS, Routes and Schedules,” *International Journal of Geographical Information Science*

Repolho H, RL Church, and A Antunes (2010) “Optimum Location of Motorway Interchanges: Users' Perspective,” *ASCE: Journal of Transportation Engineering* 136:956-963.

Duque JC, RL Church, and R Middleton (2011) “The p-Regions Problem,” *Geographical Analysis* 43:104-128.

O’Hanley JR and RL Church (2011) Designing robust facility coverage networks to hedge against worst case facility losses, *European Journal of Operational Research* 209: 23-36.



CURRICULUM VITAE

Name: Keith C. Clarke

Rank: Professor IX.

Education:

Ph.D. 1982 Geography (Analytical Cartography), Univ. of Michigan, Ann Arbor, MI
M.A. 1979 Geography, University of Michigan, Ann Arbor, MI
B.A. 1977 (Hons) in Geography and Economics, Middlesex Polytechnic, London, UK

Academic Appointments:

2010 SPLINT Fellow. University College London. April 2010.
 2007 Fulbright Distinguished Chair, Department of Geography and History. University of Trieste, Italy.
 2006-7 Visiting Professor, Leverhulme Fellow. City University London, School of Information Science
 1996- Professor, University of California, Santa Barbara
 2000-06 Chair, Department of Geography, University of California, Santa Barbara
 1994-96 Chairman, Department of Geology & Geography, Hunter College, New York, NY
 1992 Research Physical Scientist, Office of Research, National Mapping Division, USGS, Reston, VA
 1991- Professor, Hunter College and the City University of New York Graduate School and University Center, New York, NY
 1987-91 Associate Professor, City University of New York Graduate School and University Center
 1986-91 Associate Professor, Hunter College
 1982-86 Assistant Professor, Hunter College
 1980-82 Director of Computing, Center for Research on Social Organization, The University of Michigan, Ann Arbor, MI
 1980-82 Instructor, The University of Michigan

Honors and Awards:

August 2000	Horwood Critique Prize, URISA
2004	Appointed Lifetime Fellow, American Congress on Surveying and Mapping
2003	Geographic Information Science Educator of the Year Award, University Consortium for GIS
2005	John Wesley Powell Award. USGS's highest Civil Honors.
2006	Leverhulme Trust Award
2007	Fulbright Distinguished Chair Award
April 2010	SPLINT (Spatial Literacy in Teaching) Fellow. London and Leicester, UK

Professional Activities:

1992-97	North American Editor	International Journal of Geographical Information Science
1995-	Editor	Prentice Hall Series in Geographic Information Science
2001-2002	Elected President March 01-February 02.	Cartography and Geographic Information Society
	Fellow	American Congress on Surveying and Mapping
2000 Sept	Co-organizer	4th International Conference on Integrating GIS and Environmental Modeling, Banff, Alberta
2003	Chair	National Research Council, Mapping Sciences Committee, Committee on the USGS Concept of the National Map
2004-6	Appointed Member	National Academy of Sciences, Mapping Science Committee
2004-5	Chair	National Research Council, Mapping Sciences Committee, Committee on Basic and Applied Research Priorities in Geospatial Science for the National Geospatial-Intelligence Agency



2004-5	Special Issue Editor	Cartography and Geographic Information Science. Special Issue on Mobile GIS
2006-11	Appointed Chair	National Academy of Sciences, Mapping Science Committee
2006-	Appointed Member	National Academy of Sciences, Board on Earth Sciences and Resources
2006-	Appointed Member	Committee on Research and Exploration, National Geographic Society http://www.nationalgeographic.com/research/clarke.html
2006-7	Distinguished Fellow	Leverhulme Trust (UK) Department of Informatics, City University of London UK
2007	Distinguished Visiting Chair	Fulbright-Hays Commission. Residence in the Dipartimento di Scienze Geografiche e Storiche at the Universita di Trieste, Italy
2006-8	Chair, Conference Committee	Autocarto 8. Washington DC, September 2008
2009	Special Issue Editor	Cartography and Geographic Information Science. Special Issue on Autocarto 2008
2007-	Member, Committee on Research and Exploration, National Geographic Society	Member of 16-person committee that evaluates and awards funding under the CRE, Young Explorers, Conservation Trust and Young Investigators (Conservation) programs. Committee meets 4-6 times a year, evaluating about 80-100 proposals each meeting. Once per year field visits (2007 Egypt, 2008 Cambodia/Vietnam) examine funded projects in situ.
June 2010	Conference co-organizer	GDI 2010: Generalization and Data Integration. Boulder Colorado.

Participation in Campus Governance:

Years	Position	Type of Service
1997-99	Chair 98	Executive Committee, College of Literature and Science
2001	Member	Review Panel, Summer Sessions Program
1997-	Director (Santa Barbara)	NCGIA
2001-	Member	Steering Committee of ICCESS
2001-2006	Chair	Department of Geography
2004	Chair	Task Force on Environmental Issues, UCSB
2008-10	Member	Committee on Academic Personnel
2009	Member	Director of MIL, Search Committee

Extramural Support: Since 2003 only.

9/1/2003-8/31/2004	NSF	Geospatial Knowledge in Complex Mobile Field Settings	\$44,200	Co-PI (Goodchild)
9/1/2004-8/31/2005	UC -CA Policy Research Center	Effectiveness of the Williamson Act: A Spatial Analysis	\$40,000	PI (Onsted)
9/1/2004-8/31/2006	NSF: Doctoral Diss. Res.	Parameter an Metric Space Investigation- Towards Honesty in Modeling	\$8,000	PI (Dietzel)
3/01/2005-02/28/2007	USC-Seagrant	California;s Coastal Zone Management Program: Retaining Agricultural Land in the Face of Urban Growth	42,211	Co-PI (Oshrenko)
07/01/2005-12/31/2005	Northrop-Grumman Corp.	Automated Image-to-DPPDB (Arid)	79,944	PI
01/01/2007-12/31/2007	Northrop-Grumman Corp.	Geomorphic Terrain Modeling	25,000	PI
03/01/2006-02/28/2007	USC-Seagrant	California;s Coastal Zone Management Program: Retaining Agricultural Land in the Face of Urban Growth	13,238	Co-PI (Oshrenko)
07/01/2005-12/21/2006	Northrop-Grumman Corp.	Automated Image-to-DPPDB (Arid): Extension to PO "Gmodel"	25,000	PI
09/01/2006-09/01/2007	DOT Federal Highway Administration	Real-time Traffic Maps for Los Angeles	6,500	Co-PI (Goulias)
8/1/2009-7/31/2010	UC Transportation Center	Dissertation Grant, Pingel	15,000	PI
8/1/2009-7/31/2010	UC Transportation Center	Research Grant, Gargi Chaudhuri	20,000	PI



9/1/2008-12/31/2011	Dept of Interior	Automated data processing for ecosystem feature extraction for the California Cooperative Ecosystem Studies Unit	273,878	PI
6/22/2009-1/31/2012	US Intelligence Community	A Real Time Immersive Virtual Reality Testbed	239,974	PI

Publications: 4 books (one in 2 editions, one in 5, plus a Korean translation), 16 book chapters, 65 peer reviewed articles, 197 total items (to June 2011). Following list is peer reviewed and books only since 2003.

- Xiang, W-N, and K. C. Clarke (2003) The use of scenarios in land use planning. *Environment and Planning B: Planning and Design*, vol. 30, pp. 885-909.
- S. Nusser, L. Miller, K.C. Clarke, and M.F. Goodchild (2003) Geospatial IT for mobile field data collection. *Communications of the Association for Computing Machinery* 46(1): 63–64.
- Goldstein, N. C, Candau, J. T. and K. C. Clarke (2003) Approaches to simulating the 'March of Bricks and Mortar'. *Computers, Environment and Urban Systems*, Vol. 28, no. 1-2, pp. 125-147.
- Clarke, K. C. (2003) Geocomputation's future at the extremes: high performance computing and nanoclients. *Parallel Computing*, Volume 29, Issue 10, pp. 1281-1295.
- Aerts, J. C. J. H., Clarke, K. C. and Keuper, A. D. (2003) Testing popular visualization techniques for representing model uncertainty. *Cartography and Geographic Information Science*, Vol. 30, No. 3, pp. 249-261.
- Herold, M, Liu, X. and Clarke, K. C. (2003) Spatial metrics and image texture for mapping urban land use. *Photogrammetric Engineering and Remote Sensing*, Vol. 69, no. 9, pp. 991-1001.
- Artur-Hartranft, S. T., Carlson, T. N. and Clarke, K. C. (2003) Satellite and ground-based microclimate and hydrological analyses coupled with a regional urban growth model. *Remote Sensing of Environment*, Vol. 86, pp. 385-400.
- Herold, M., Goldstein, N. and K.C. Clarke (2003) The spatio-temporal form of urban growth: measurement, analysis and modeling. *Remote Sensing of Environment*, Vol. 86, no. 3, pp. 286-302.
- Clarke, K. C. (2003) *Getting Started with Geographic Information Systems*. Fourth Edition, Prentice Hall, Upper Saddle River, NJ.
- Dietzel, C.K., and K.C. Clarke. (2004) Spatial differences in multi-resolution urban automata modeling. *Transactions in GIS* vol. 8, pp. 479-492.
- Dietzel C, Clarke K.C.(2004) Replication of spatio-temporal land use patterns at three levels of aggregation by an urban cellular automata. *Lecture Notes in Computer Science*. vol. 3305, pp. 523-532.
- Clarke, K. C. and S. R. Baumgart (2004) The Department of Geography at the University of California, Santa Barbara: History, Curriculum, and Pedagogy. *Yearbook of the Association of Pacific Coast Geographers*, vol 66, pp. 95-113.
- Dietzel, C and Keith C. Clarke (2005) The Effects of Disaggregating Land Use Categories in Cellular Automata During Model Calibration and Forecasting. *Computers, Environment and Urban Systems*. Vol. 30, no. 1, pp. 78-101.
- Silva, E. A. and Clarke, K., (2005) Complexity, Emergence and Cellular Urban Models: Lessons Learned from Applying SLEUTH to two Portuguese Metropolitan Areas. *European Planning Studies*, vol. 13, no. 1, pp. 93-115.
- Syphard, A. D., Clarke, K. C., Franklin, J. (2005) Using a cellular automaton model to forecast the effects of urban growth on habitat pattern in southern California. *Ecological Complexity*. vol. 2, no. 2, pp. 185-203.
- Dietzel, C. Oguz, H., Hemphill, J. J, Clarke, K. C. and Gazulis, N. (2005) Diffusion and coalescence of the Houston Metropolitan Area: evidence supporting a new urban theory. *Environment and Planning B-Planning and Design*. vol 32, no. 2, pp. 231-246.
- Dietzel, C., Herold, M., Hemphill, J. J., and Clarke, K. C. (2005) Spatio-temporal dynamics in California's central valley: Empirical links to urban theory. *International Journal of Geographical Information Science*. vol 19, no. 2. pp. 175-195.
- Herold, M., Couclelis, H and Keith C. Clarke. (2005) The Role of Spatial Metrics in the Analysis and Modeling of Urban Land Use Change. *Computers, Environment and Urban Systems*, vol. 29, pp. 369-399.
- Guan, Q., L. Wang and K. C. Clarke. (2005) An Artificial-Neural-Network-based, Constrained CA Model for Simulating Urban Growth. *Cartography and Geographic Information Science*. vol. 32, no. 4, pp. 369-380.
- Dietzel, C., and Clarke, K. C. (2006) Decreasing computational time of urban cellular automata through model portability. *Geoinformatica*. vol. 10, no. 2. pp. 197-211.
- Gazulis, N and Clarke, K. C. (2006) Exploring the DNA of our regions: Classification of outputs from the SLEUTH model”, in El Yacoubi, S., Chapard, B. and Bandini, S. (Eds.) *Cellular Automata. Lecture Notes in Computer Science*. No. 4173. Springer: New York.
- Liu, X. H., Clarke, K., and Herold, M. (2006) Population density and image texture: A comparison study. *Photogrammetric Engineering and Remote Sensing*. vol. 72, no. 2, pp 187-196.
- Dietzel, C. and Clarke, K. C. (2007) Toward Optimal Calibration of the SLEUTH Land Use Change Model. *Transactions in GIS*, vol. 11, no. 1, pp. 29-45.



- Syphard, A. D., Clarke, K. C., and Franklin, J. (2007) Simulating fire frequency and urban growth in southern California coastal shrublands, USA. *Landscape Ecology*. Vol. 22, no. 3, pp. 431-445.
- Dillemuth, J., Goldsberry, K. and Keith C. Clarke. (2007) Choosing the Scale and Extent of Maps for Navigation with Mobile Computing Systems. *Journal of Location Based Services*. vol 1., no. 1, pp. 46-61.
- R G Pontius Jr, W Boersma, J-C Castella, K Clarke, T de Nijs, C Dietzel, D Zengqiang, E Fotsing, N Goldstein, K Kok, E Koomen, C D Lippitt, W McConnell, A M Sood, B Pijanowski, S Pithadia, S Sweeney, T N Trung, A T Veldkamp, and P H Verburg. (2007) Comparing the input, output, and validation maps for several models of land change. *Annals of Regional Science*, vol. 42, no. 1, pp. 11-37.
- Clarke, K. C. and Su Jin Lee. (2007) Spatial Resolution and Algorithm Choice as Modifiers of Downslope Flow Computed from Digital Elevation Models. *Cartography and Geographic Information Science*, vol. 34, No. 3, pp. 215-230.
- Wood, J., Dykes, J., Slingsby, A. and Clarke, K. C. (2007) Interactive visual exploration of a large spatio-temporal data set: reflections on a geovisualization mashup. *IEEE Transactions on Visual Computing and Graphics*, vol. 13, no. 6, pp. 1176-83.
- Tu, J., Xia, Z-G, Clarke, K. C. and Frei, A. (2007) Impact of Urban Sprawl on Water Quality in Eastern Massachusetts. *Journal of Environmental Management*. Vol. 40, pp. 183-200.
- Grossner, K. E., Goodchild, M. F. and Clarke, K. C. (2008) Defining a digital earth system. *Transactions in GIS*. Vol.12, no.1, pp. 145-160.
- Choi, Yosoon, Park, Hyeong-Dong, Sunwoo, Choon and Clarke, Keith C. (2009) Multi-criteria evaluation and least-cost path analysis for optimal haulage routing of dump trucks in large scale open-pit mines, *International Journal of Geographical Information Science*, vol. 23, no. 12, pp. 1541-1567.
- Ford, A, Clarke, K. C. and Raines, G. (2009) Modeling Settlement Patterns of the Late Classic Maya Civilization with Bayesian Methods and Geographic Information Systems. *Annals of the Association of American Geographers*, vol. 99, no. 3, pp. 1-25.
- Beekhuizen, J. and Clarke, K. C. (2010) Toward accountable land use mapping: Using geocomputation to improve classification accuracy and reveal uncertainty *International Journal of Applied Earth Observation and Geoinformation*, vol. 12, no. 3, pp. 127-137.
- Guan, Qingfeng and Clarke, Keith C. (2010) A general-purpose parallel raster processing programming library test application using a geographic cellular automata model. *International Journal of Geographical Information Science*, vol. 24, no. 5, pp. 695-722.
- Nie, Qinghua and Keith C. Clarke (2010) *Environmental Statistics with MATLAB* Beijing: Higher Education Press (in Chinese)
- Clarke, K. C. (2011) *Getting Started with Geographic Information Systems*. 5th edition. Pearson- Prentice Hall. Prentice Hall Series in Geographic Information Science.
- Ren, L., Clarke, K. C., Zhou, C., Ding, L. and Li, G. (2010) Geometric Rectification of Satellite Imagery with Minimal Ground Control Using Space Oblique Mercator Projection Theory. *Cartography and Geographic Information Science*. 37, 4, pp. 261-272.
- Nie, Qinghua and Clarke, K. C. (2011) Desertification in China's Horquin area: a multi-temporal land use change analysis. *Journal of Land Use Science*, 6, 1, 53-73.
- Eliza S. Bradley and Keith C. Clarke (2011) Outdoor Webcams as Geospatial Sensor Networks: Challenges, Issues and Opportunities. *Cartography and Geographic Information Science*, 38, 1, 5-22.
- Alexandra D. Syphard, Keith C. Clarke, Janet Franklin, Helen M. Regan, Mark McGinnis (2011) Forecasts of habitat loss and fragmentation due to urban growth are sensitive to source of input data, *Journal of Environmental Management*, 92, 7, 1882-1893.
- Clarke, Keith C. (2011) Exploring the Past and Future of Our Planet: Not Bit-by-Bit but All at Once *The Professional Geographer* 63, 3, 320 — 324



CURRICULUM VITAE

Name: Helen Couclelis

Rank: Professor

Education:

- Dr. Phil., 1977, University of Cambridge, King's College
- Diploma, 1971, Technical University of Munich (Urban and Regional Planning)
- Diploma (MSc equiv.), 1967, Technical University of Athens (Architect Engineer)

Academic Appointments:

1982-present: Assistant Professor to Professor, University of California, Santa Barbara

Honors and Awards:

Honorary Doctorate: University of Utrecht, The Netherlands, 1999

Professional Activities:

- Co-editor, *Environment and Planning B: Planning and Design*, 1996-
- Review panel member, Argonne National Laboratory, Environmental Science Division, 2003 and 2006
- Co-organizer, CSISS/IROWS specialist meeting on “Globalization in the World-System: Mapping Change over Time”, UC Riverside, CA, 2004
- Final Interdisciplinary Review Panel member, *The Geomatics for Informed Decisions Network* (GEOIDE). Quebec City, Canada, 2004
- Co-PI and Report co-editor, DCPC Geographic Information Science Research Priorities: Geographer and Spatial Statistician Focus Group meeting, Santa Barbara, CA, 2004
- Model Curricula Project Advisory Board member – Knowledge Area DE, University Consortium for Geographic Information Science (UCGIS) Education Committee, 2005
- Committee member, audit of spatial models used by the Dutch Environmental Protection Agency (MNP), Bilthoven, NL, 2007
- External reviewer, Free University of Amsterdam, Institute for Environmental Studies, 2007
- External reviewer, Geography Department, Harokopeio University, Athens, Greece, 2007
- Member, review committee, Mid-term Review of GEOIDE: *The Geomatics for Informed Decisions Network*, NCE, Montreal, Canada, 2008
- Advisory Board Member, Advanced spatial analysis program for population scientists (UCSB), 2009-
- Editorial Board member, *Journal of Spatial Information Science* (JOSIS), 2010-
- Program committee member:
 - COSIT (Conference in Spatial Information Theory) 2003, 2005, 2007, 2009, 2011
 - GIScience 2006, 2008, 2010
 - Colloque International de Geomatique et d'Analyse Spatiale (SAGEO) 2006, 2010
- Reviewer of hundreds of academic manuscripts plus national & international research proposals, academic personnel cases, etc.



Participation in Campus Governance

2003-5	Ad Hoc personnel review committees, member (2) & chair (2)
2003-4	Academic Senate Committee on Faculty Grants
2003-4	Council on Research and Instructional Resources
2003-4	Academic Senate Committee on Faculty Grants
2004-6	College of Letters & Science Research Awards Committee
2004-6	Executive Committee of the College of Letters & Science (L&S)
2005-7	L&S College Research Committee
2005-7	Academic Senate Committee on Committees
2007	UC Davis, Geography Graduate group 5-year review
2009-11	Academic Senate Graduate Council

Extramural Support:

1999-04	Center for Spatially Integrated Social Science (CSISS) National Science Foundation (Senior Personnel. M. F. Goodchild, PI).	\$4,293,501
2004	GIS Science priorities for Comprehensive Cancer Control Research triangle Institute (NIH) #20040076; -59618 (Investigator. M. F. Goodchild, PI)	\$49,794
004-5	Modeling the Human Use of Space: Historical Ranching on the Santa Cruz Island Reserve (UCOP Natural Reserve System Fellowship) #20050936 (Howarth/Couclelis, Co-PIs)	1,900

Publications:

96 publications

Five most significant:

Couclelis, Helen (1985). Cellular worlds: a framework for modelling micro-macro dynamics. *Environment and Planning A* 17: 585-96.

Couclelis, Helen (1992). People manipulate objects (but cultivate fields): beyond the raster-vector debate in GIS. In *Theories and methods of spatio-temporal reasoning in geographic space*. eds. A. U. Frank, I. Campari, and U. Formentini, 65-77. Berlin: Springer Verlag.

Couclelis, Helen (1997). From cellular automata to urban models: new principles for model development and implementation. *Environment and Planning B: Planning and Design* 24, no. 2: 165-74.

Couclelis, H. (2009). Rethinking time geography in the information age. *Environment and Planning A* 41(7): 1556-1575.

Couclelis, H. (2010) Ontologies of geographic information. *International Journal of Geographical Information Science*. 24(12):1785-1809.



Appearing within the past nine years:

- Couclelis, H. (2003). Housing and the new geography of accessibility in the information age. *Open House International*, theme issue on “ICT, Housing & the Built Environment”, 28(4): 7-13.
- Couclelis, H. (2004). The certainty of uncertainty, *Transactions in GIS* 7:2, 165-175.
- Couclelis, H. (2004). The construction of the digital city. *Environment and Planning B*, Theme issue on ‘The Digital City revisited’, ed. M. Craglia. 31(1): 5-19.
- Couclelis, H. (2004). Pizza over the Internet: e-commerce, the fragmentation of activity, and the tyranny of the region. *Entrepreneurship & Regional Development*, 16 (1): 41-54
- Couclelis, H. (2004) The third domain: The spread and use of GIS within social science. *Cartographica* 39(1): 17-24.
- Herold, M., Couclelis, H., and Clarke, K. (2005) The role of spatial metrics in the analysis and modeling of urban growth and land use change. *Computers, Environment and Urban Systems* 29(4): 369-399.
- Couclelis, H. (2005). “Where has the future gone?” Rethinking the role of integrated land use models in spatial planning. *Environment and Planning A* 37: 1353-1371.
- Howarth, J. and Couclelis, H. (2005). A linguistics-based framework for modeling spatio-temporal occurrences and purposive change. In *COSIT '05, Conference in Spatial Information Theory*, eds. D. Mark and A. Cohn (Springer, Berlin), pp. 316-329.
- Couclelis, H. (2007). Misses, near-misses and surprises in forecasting the informational city. In Miller, H. J. (Ed.) *Societies and cities in the age of instant access*, pp. 71-82, Springer: Dordrecht.
- Rashed, T., J. Weeks, H. Couclelis, and M. Herold (2007). An Integrative GIS and Remote Sensing Model for Place-Based Urban Vulnerability Analysis. In V. Mesev (ed.) *Integration of GIS and Remote Sensing*, (Chapter 9), pp. 199-231. Wiley: New York.
- Couclelis, H. (2009). Computational human geography. In *International Encyclopedia of Human Geography*, eds. R. Kitchin and N. Thrift, pp. 245-250, Elsevier: Oxford.
- Couclelis, H. (2009). Polyplexity: a complexity science for the social and policy sciences. In *Complexity, Evolution and Learning: in Search of Simplicity*, eds. A. Reggiani and P. Nijkamp Springer: Berlin.
- Couclelis, H. (2009). Ontology, epistemology, teleology: triangulating geographic information science. In *Research Trends in Geo-graphic Information Science*, ed. G. Navratil, pp. 3-16, Springer: Berlin.



- Couclelis, H. (2009). The abduction of geographic information science: transporting spatial reasoning to the realm of purpose and design. In *Spatial Information Theory, 9th International Conference, COSIT 2009*, eds. K. Stewart Hornsby, C. Claramunt, M. Denis, and G. Ligozat, pp. Springer, Berlin.
- Couclelis, H. (2009). Rethinking time geography in the information age. *Environment and Planning A* **41**(7): 1556-1575.
- Foss, S. and Couclelis, H. (2009). Throwing space back in: A tale of Indian fishermen, ICT and travel behavior. *Journal of Transport Geography* (17): 134-140.
- Couclelis, Helen (2009). Obituary - Reg Golledge 1937-2009. *Environment and Planning A* **41** (11): 2541-43.
- Couclelis, Helen (2009). Obituary - Reg Golledge 1937-2009. *Environment and Planning B: Planning and Design* **36**(6): 951-53.
- Couclelis, Helen. (2010). Ontologies of geographic information. *International Journal of Geographical Information Science*. 24(12):1785-1809.
- Couclelis, Helen. (2011) Risky business: climate control legislation, regional development uncertainties and California's SB 375 law. *International Journal of Foresight and Innovation Policy*. 7(1/2/3):158-175.
- Nyerges, T., Couclelis, H., and McMaster, R. (2011). *Handbook of GIS and Society*. London/Thousand Oaks, CA: SAGE.
- Nyerges, Timothy L.; McMaster, Robert, and Couclelis, Helen. (2011) Geographic Information Systems and society: A twenty year research perspective. Nyerges, Timothy L., Couclelis, Helen, and McMaster, Robert, Eds. Chapter 1, *The SAGE Handbook of GIS and Society*. London/Thousand Oaks, CA: SAGE; 2011; pp. 3-21.
- Couclelis, Helen; Nyerges, Timothy L., and McMaster, Robert. (2011) GIS and Society research: reflections and emerging themes. Nyerges, Timothy L.; Couclelis, Helen, and McMaster, Robert, Eds. Chapter 27, *The SAGE Handbook of GIS and Society*. London/Thousand Oaks, CA: SAGE; 2011; pp. 531-541.
- Timmermans, H.; Batty, M; Couclelis, H., and Wegener, M. (in press) LUMOS models from an international perspective. In: Koomen, E. and Borsboom- van Beurden, J., Eds. *Land-Use Modelling in Planning Practice*. Berlin: Springer Science + Business Media ; 2011; p. Chapter 2.



CURRICULUM VITAE

Name: Jennifer Y. King

Rank: Associate Professor

Education:

B.A. in Ecology and Evolutionary Biology, 1994, Rice University
M.S. in Earth System Science, 1997, University of California, Irvine
Ph.D. in Earth System Science, 1999, University of California, Irvine

Academic Appointments:

1991-1994, Research Assistant, Rice Univ., Wetland Center for Biogeochemical Research
1994-1999, Graduate Student Researcher, Univ. of California, Irvine, Dept. of Earth System Science
1996, Teaching Assistant, Univ. of California, Irvine, Dept. of Earth System Science
1999-2001, Postdoctoral Research Fellow, USDA-ARS, Soil-Plant-Nutrient Research Unit
2002-2008, Assistant Professor and Associate Professor, Univ. of Minnesota, Dept. of Soil, Water, and Climate and Dept. of Ecology, Evolution, and Behavior (joint appointment)
2008-present, Adjunct Associate Professor, Univ. of Minnesota, Dept. of Soil, Water, and Climate
2008-present, Associate Professor, Univ. of California, Santa Barbara, Dept. of Geography

Honors and Awards:

Professional Activities:

Apr 2004, Panel Member, USDA/NASA Interagency Panel, Carbon Cycle Science
May 2008, Panel Member, USDA NRI Soil Processes Program Proposal Review Panel
Mar 2011-, Member, AGU Soil Systems & Critical Zone Processes Technical Committee
Referee for several journals including: Agricultural and Forest Meteorology, Atmospheric Environment, Biogeochemistry, Ecology, Ecosystems, Environmental Management, Global Biogeochemical Cycles, Global Change Biology, Journal of Environmental Quality, Journal of Geophysical Research-Atmospheres, Journal of Soil and Water Conservation, Nutrient Cycling in Agroecosystems, Oecologia, Pedosphere, Photochemistry and Photobiology, Rapid Communications in Mass Spectrometry, Soil Biology and Biochemistry, Urban Ecosystems, Wetlands
Referee for several grant agencies including: NSF, USDA, NWO VICI (Netherlands Research Council), Research Council of Norway, Swiss National Science Foundation, Israel National Science Foundation

Participation in Campus Governance:

2008-2009, Member, Globalization Search Committee, Department of Geography
2008-2009, Chair, Diversity Committee, Department of Geography
2009, MLPS Representative, University Faculty Development Awards and Fellowships Committee
2008-2011, Member, Colloquium Committee, Department of Geography
2008-2011, Department Representative, Affirmative Action
2009-2010, Member, Visibility, Outreach, Diversity, and Development Committee, Department of Geography



2009-2011, Member, University Advisory Committee on Campus Access
 2010, Member, College Ad-hoc committee on General Science degree
 2009-2011, Member, Undergraduate Faculty Advisor

Extramural Support:

Years	Source	Title	Amt.	PI
2000-2003	USDA UV-B Radiation and Monitoring Program	Effets of UV Radiation on Growth and Decomposition of Shortgrass Steppe Vegetation: Linking UV with Elevated Atmospheric CO ₂	\$150,000	J. King and D. Milchunas
2002-2004	University of Minnesota Graduate School Grant-In-Aid of Research, Artistry, and Scholarship	Mechanisms of UV-B Radiation Effects on Decomposition and Soil Carbon Cycling Rates	\$22,091	J. King
2003-2004	University of Minnesota Graduate School Grant-In-Aid of Research, Artistry, and Scholarship	Purchase of a CE Instruments Flash EA1112 Combustion CNS Analyzer	\$25,000	C. Rosen, J. King, D. Allan, and K. Kumar
2003-2006	NSF-Biocomplexity	Coupled Biogeochemical Cycles in Human Ecosystems: Stoichiometry, Hydrology, Connectiveness, and Culture	\$355,317	P. Brezonik, L. Baker, D. Mulla, S. Hobbie, and J. King
2003-2007	USDA-NRI Managed Ecosystems	Carbon and Nitrogen Dynamics: Storage and Losses in Upper Midwest Cropping Systems	\$395,000	D. Allan, J. King, J. Bell, and J. Strock
2004-2005	Minnesota Agricultural Experiment Station Rapid Agricultural Response Fund	Environmental Impacts and Sustainability of Biofuel Cropping Systems	\$30, 868	J. King and G. Cuomo
2004-2006	University of Minnesota Graduate School Grant-in-Aid of Research, Artistry, and Scholarship	Acquisition of a Gas Chromatograph Autosampler for Trace Gas Analysis	\$21,709	J. Bell, J. King, and D. Wang
2004-2009	USDA Forest Service	Understanding Carbon Pools and Processes in Peatland Watersheds	\$518,433	J. King
2004-2008	NSF-MRI	Development of the Minnesota Terrestrial Integrated Mesocosms for Biophysical and Ecophysiological Research	\$930,000	T. Griffiths and J. King
2005-2010	NSF-IGERT	Non-equilibrium Dynamics Across Space and Time: A Common Approach for Engineers, Earth Scientists, and Ecologists	\$2.8M	S. Shekhar (J. King senior personnel)
2006-2009	EPA-STAR	Photodegradation as a Factor in the Decomposition of Surface Litter in Grassland Ecosystems	\$15,402	L. Brandt and J. King
2006-2009	NSF-DEB	Dissertation Research: Photodegradation as an Abiotic Mechanism in the Decomposition of Surface Litter	\$10,160	L. Brandt and J. King
2006-2008	NSF-DEB Ecosystem Science Program	Photodegradation of Plant Litter in Grassland Ecosystems: A Mechanism for Uncoupling C and N Biogeochemistry	\$570,000	J. King
2006-2012	NSF-LTER	Biodiversity, Environmental Change and Ecosystem Function at the Prairie-Forest Border	\$4.92M	D. Tillman
2007	NSF-DEB Ecosystem Science Program	REU Supplement to Photodegradation of Plant Litter in Grassland Ecosystems: A Mechanism for Uncoupling C and N Biogeochemistry	\$6,000	J. King
2007-2009	USGS/University of Minnesota Water Resources Center	The Influence of Drainage on Biogeochemical Cycling of Carbon in Agricultural Ecosystems	\$36,360	J. King
2007-2009	NSF-BE: Coupled Human and Natural Systems Program	Integration of Human Choice into Models of Biogeochemical Cycling in Urban Ecosystems	\$550,000	L. Baker
2008*	NSF-DEB Ecosystem Science Program	REU Supplement to Photodegradation of Plant Litter in Grassland Ecosystems: A Mechanism for Uncoupling C and N Biogeochemistry	\$7,000	J. King



2008	NSF LTER International Supplement	Altering Behavior to Change Consumption Choices (and Household Biogeochemical Cycles) Along an Urban to Exurban Gradient	\$20,000	J. Cavender-Bares, S. Klotz, S. Hobbie, J. McFadden, J. King, K. Nelson, L. Baker
2008	NSF LTER Social Science Supplement	The Role of Human Choice in Influencing Household Biogeochemical Cycles Along an Urban to Peri-urban Gradient	\$20,000	S. Hobbie, K. Nelson, J. McFadden, L. Baker, J. King, J. Corney
2008	NSF LTER Social Science Supplement	A Comparison of Plant Phylogenetic and Functional Diversity Across Urban to Rural Gradients in the U.S. and Europe	\$20,000	S. Hobbie, K. Nelson, J. King, L. Baker, J. Corney
2009-2012	NSF-BE: Dynamics of Coupled Natural and Human Systems	Collaborative Research: Coupling Human Choice and Biogeochemical Cycling in Urban Ecosystems	\$449,945	J. McFadden, J. King
2010-2012	Kearney Foundation	Understanding the Impact of Soil Moisture on Tree Mortality at Multiple Spatial and Temporal Scales in a California Coastal Pine Forest	\$90,000	C. Still, J. King

Publications:

Total publications: 30

Five most significant articles: indicated below by *

Selected Publications 2002 to present

Year	Title and Authors	Publisher
2002	A pulse-labeling experiment to determine the contribution of recent plant photosynthates to net methane emission in arctic wet sedge tundra. J.Y. King and W.S. Reeburgh	<i>Soil Biology and Biochemistry</i> 34: 173-180
2002	*Pulse-labeling studies of carbon cycling in Arctic tundra ecosystems: The contribution of photosynthates to methane emission. J.Y. King, W.S. Reeburgh, K.K. Thielner, G.W. Kling, W.M. Loya, L.C. Johnson, and K.J. Nadelhoffer	<i>Global Biogeochemical Cycles</i> 16 (4), 1062-1069, doi: 10.1029/2001GB001456
2003	Elevated atmospheric CO ₂ effects and soil water feedbacks on soil respiration components in a Colorado grassland. E. Pendall, S. DelGrosso, J. King, D. LeCain, D. Milchunas, J. Morgan, A. Mosier, D. Ojima, W. Parton, P. Tans, and J. White	<i>Global Biogeochemical Cycles</i> 17 (2), 1046-1058, doi: 10.1029/2001GB001821
2003	Initial impacts of altered UVB radiation on plant growth and decomposition in shortgrass steppe. J.Y. King, D.G. Milchunas, A.R. Mosier, J.C. Moore, M.H. Quirk, J.A. Morgan, and J.R. Slusser	<i>Proceedings of SPIE Vol. 5156 Ultraviolet Ground- and Space-based Measurements, Models, and Effects III</i> (Ed. J.R. Slusser, J.R. Herman, W. Gao). SPIE, Bellingham, WA, 384-395
*2004	Plant nitrogen dynamics in shortgrass steppe under elevated carbon dioxide. J.Y. King, A.R. Mosier, J.A. Morgan, D.R. LeCain, D.G. Milchunas, and W.J. Parton	<i>Ecosystems</i> 7: 147-160, doi:10.1007/s10021-003-0201-5
2005	Feasibility of quantifying ecosystem-atmosphere C ¹⁸ O ¹⁶ O exchange using laser spectroscopy and the flux-gradient method. T.J. Griffis, X. Lee, J. Baker, S. Sargent, and J. King	<i>Agricultural and Forest Meteorology</i> 135: 44-60
*2007	Global-scale similarities in nitrogen release patterns during long-term decomposition. W.J. Parton, W.L. Silver, I. Burke, L. Grassens, M.E. Harmon, W. Currie, J.Y. King, E.C. Adair, L.A. Brandt, S.C. Hart, and B. Fasth	<i>Science</i> 315: 361-364
2007	Effect of consumption choices on fluxes of carbon, nitrogen and phosphorus through households. L.A. Baker, P.M. Hartzheim, S.E. Hobbie, J.Y. King, and K.C. Nelson	<i>Urban Ecosystems</i> 10: 97-117, doi: 10.1007/s11252-006-0014-3



2007	Soil organic matter dynamics in grassland soils under elevated CO ₂ : Insights from long-term incubations and stable isotopes. E. Pendall and J.Y. King	<i>Soil Biology and Biochemistry</i> 39: 2628–2639, doi: 10.1016/j.soilbio.2007.05.016
2007	Effects of ultraviolet radiation on litter decomposition depend on precipitation and litter chemistry in a shortgrass steppe ecosystem. L.A. Brandt, J.Y. King, and D.G. Milchunas	<i>Global Change Biology</i> 13: 2193–2205, doi: 10.1111/j.1365-2486.2007.01428.x
2008	Isotopic evidence of methane oxidation across the surface water - ground water interface. D.A. Riveros-Iregui and J.Y. King	<i>Wetlands</i> 28: 928-937
2009	Carbon pools and productivity in a 1-km ² heterogeneous forest and peatland mosaic in Minnesota, USA P. Weishampel, R. Kolka, and J.Y. King	<i>Forest Ecology and Management</i> 257: 747-754
*2009	Photochemically induced carbon dioxide production as a mechanism for carbon loss from plant litter in arid ecosystems. L.A. Brandt, C. Bohnet, and J.Y. King	<i>Journal of Geophysical Research - Biogeosciences</i> 114: G02004, doi:10.1029/2008JG000772
2010	The role of photodegradation in surface litter decomposition across a grassland ecosystem precipitation gradient. L.A. Brandt, J.Y. King, S.E. Hobbie, D.G. Milchunas, and R.L. Sinsabaugh.	<i>Ecosystems</i> 13: 765-781, doi: 10.1007/s10021-010-9353-2
*2011	Carbon, nitrogen, and phosphorus fluxes in household ecosystems in the Minneapolis–Saint Paul, Minnesota, urban region. C. Fissore, L.A. Baker, S.E. Hobbie, J.Y. King, J.P. McFadden, K.C. Nelson, and I. Jakobsdottir.	<i>Ecological Applications</i> (in press) doi:10.1890/10-0386.1



CURRICULUM VITAE

Name: Phaedon Kyriakidis

Rank: Associate Professor

Education:

- **Ph.D.**, 1999: Stanford University, USA, Department of Geological & Environmental Sciences, Specialization: *Geostatistics in the Earth Sciences*.
- **B.Sc.**, 1994: Aristotelian University of Thessaloniki, Greece, Geology, B.Sc., 1994.

Academic Appointments:

- 2009-present: **Professor of Spatial Analysis**, Department of Geography, University of the Aegean, Greece -- leave-of-absence (without salary) from UCSB
- 2008-2009: **Vice-Chair and Graduate Advisor**: Department of Geography, University of California Santa Barbara, USA
- 2001-2009: **Faculty Staff Scientist**: Earth Sciences Division, Berkeley National Laboratory, USA
- 2005-2009: **Associate Professor**: Department of Geography, University of California Santa Barbara, USA
- 2001-2005: **Assistant Professor**: Department of Geography, University of California Santa Barbara, USA
- 1999-2000: **Post-Doctoral Fellow**: Earth Sciences Division (Hydro-climate & Impacts Assessment Group), Berkeley National Laboratory, USA

Honors and Awards:

- 2010: Best paper award: Kyriakidis, P.C., and Nagle, N.N.: Geostatistical regression for areal data, *9th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences*, July 2010, Leicester, UK
- 2008: Keynote Speaker: *7th International Conference on Geostatistics for Environmental Applications*, September 2008, Southampton, UK
- 2006: Keynote Speaker: *7th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences*, July 2006, Lisbon, Portugal
- 1999: Keynote Speaker: *International Statistics Institute (ISI) Cutting Edge Conference on Spatial Statistics for Production Ecology, GIS, Remote Sensing, and Modeling*, April 1999, Wageningen, The Netherlands
- 1999: Exemption (until 2003) from the obligatory military services of Greece due to distinguished scientific activities abroad

Professional Activities:

2007- present: Editorial Board Member *International Journal of Geographical Information Science*

2009: Geostatistics expert assisting the ASCE/EWRI Committee of the American Society of Civil Engineers (ASCE) in the development of a “*Standard Guideline for the Geostatistical Estimation and Block-Averaging of Homogeneous and Isotropic Saturated Hydraulic Conductivity*”, published in 2010.



- 2004-2007: Board Member: *Spatial Analysis and Modeling (SAM) Specialty Group* of the Association of American Geographers (AAG).
- 2008: Field Editor: *Encyclopedia of GIS* (S. Shekhar and H. Xiong, Eds.). Thematic field: *Spatial Uncertainty and Imprecision*, published in 2008 by Springer-Verlag.
- 2006: Advisory Committee Member: *UCGIS Model Curriculum Project on Geographic Information Science & Technology*, published in 2006 by the Association of American Geographers (AAG).
- 2005-2006: Panel Member: *Doctoral Dissertation Research Improvement grants*, Geography & Regional Science Program, US National Science Foundation (NSF).

Participation in Campus Governance:

Extramural Support:

- 2007-2011: *A Geostatistical Framework for Geospatial Data Analysis and Modeling across Multiple Spatial and Temporal Scales*. Goodchild (PI), Kyriakidis (Co-PI); Funding Source: US National Geospatial-Intelligence Agency (NGA); Amount: \$450,000.
- 2008-2009: *Modeling Soil Moisture in California across Multiple Scales*. Chadwick (PI); Roberts and Kyriakidis (Co-PIs); Funding Source: US Kearney Foundation of Soil Science; Amount: \$88,950.
- 2007-2009: *Remote Assessment of Giant Kelp Dynamics – The Engineer of California’s Near-Shore Ecosystems*: Siegel (PI), Kyriakidis (Co-I). Funding Source: US National Aeronautics and Space Administration (NASA); Amount: \$859,000.
- 2005-2006: *Intra-Urban Industrial Location Under Institutional and Accessibility Constraints: An Empirical Approach*. Sweeney (PI), Kyriakidis (Co-PI); Funding Source: US National Science Foundation (NSF); Amount: \$100,000.
- 2004-2006: *A Geostatistical Framework for Downscaling Spatial Data*. Kyriakidis (PI); Funding Source: US National Science Foundation (NSF); Amount: \$125,000.
- 2004-2006: *An Integrated, Dynamic and Predictive Model of Wildfire Risk in Southern California Using MODIS Imagery*. Kyriakidis (PI), Schneider (Co-PI); Funding Source: US National Aeronautics and Space Administration (NASA); Amount: \$48,000.
- 2004-2007: *Strategic Enhancement of NGA’s Geographic Information Science Infrastructure*. Goodchild (PI), Kyriakidis (Co-I); Funding Source: US National Geospatial-Intelligence Agency (NGA); Amount: \$693,000.
- 2004-2005: *Instructional Improvement Grant: An Integrated Software Environment for Enhanced Geographic Education*. Kyriakidis and Sweeney (PIs). Funding Source: University of California Santa Barbara Academic Senate; Amount: \$24,000.
- 2003-2005: *A Systems Approach to the Visualization of Spatial Uncertainty*. Kyriakidis (PI). Funding Source: US National Science Foundation (NSF); Amount: 69,600.
- 2002-2003: *Sub-County Population and Household Projections for SCAG Sub-Regions, Cities, and Unincorporated Areas to 2025*. Sweeney (PI), Kyriakidis (Co-PI); Funding Source: Southern California Association of Governments (SCAG); Amount: \$74,900.

Publications:

Dr. Kyriakidis has forty three (43) publications (published/in-press) in peer-reviewed scientific journals, six (6) publications in peer-reviewed conference proceedings, two (2) chapters in edited volumes, and one (1) book (co-authored with former PhD advisor Prof. Journel).



Five (5) most significant articles or books

Boucher, A., and Kyriakidis, P.C. (2006): Super-resolution land cover mapping with indicator geostatistics, *Remote Sensing of Environment*, 104(3): 264–282.

Kyriakidis, P.C. (2004): A geostatistical framework for area-to-point spatial interpolation, *Geographical Analysis*, 36(3): 259–289.

Journel A.G., and Kyriakidis, P.C. (2004): *Evaluation of Mineral Reserves: A Simulation Approach*, Oxford University Press, Applied Geostatistics Series, 216p.

Kyriakidis, P.C., and Journel, A.G. (1999): Geostatistical space-time models, *Mathematical Geology*, 31(6): 651–684.

Kyriakidis, P.C., Shortridge, A.M., and Goodchild, M.F. (1999): Geostatistics for conflation and accuracy assessment of digital elevation models, *International Journal of Geographical Information Science*, 13(7): 677–708.

Selected publications (2002 to present)

Cao, G., Kyriakidis, P.C., and Goodchild, M.F. (2011): A multinomial logistic mixed model for prediction of categorical spatial data, *International Journal of Geographical Information Science* (in press).

Guan, Q., Kyriakidis, P.C., and Goodchild, M.F. (2011): A parallel computing approach to fast geostatistical areal interpolation, *International Journal of Geographical Information Science* (in press).

Cao, G., Kyriakidis, P.C., and Goodchild, M.F. (2011): Combining spatial transition probabilities for stochastic simulation of categorical fields, *International Journal of Geographical Information Science* (in press).

Legleiter, C.J., Kyriakidis, P.C., McDonald R.R., and Nelson J.M. (2011): Effects of uncertain topographic input data on two-dimensional flow modeling in a gravel-bed river, *Water Resources Research*, 47, W03518, doi:10.1029/2010WR009618.

Husak, G.J., Michaelsen, J., Kyriakidis, P.C., Verdin, J.P., Funk, C., and Galu, G. (2011): The forecast interpretation tool – A Monte Carlo technique for blending climatic distributions with probabilistic forecasts, *International Journal of Climatology*, 31(3): 461–467.

Nagle, N., Sweeney, S., and Kyriakidis, P.C. (2011): A geostatistical linear regression model for small-area data, *Geographical Analysis*, 43(1): 38–60.

Yoo, E.-H., Kyriakidis, P.C., and Tobler, W. (2010): Reconstructing population density surfaces from areal data: A comparison of Tobler’s pycnophylactic interpolation method and area-to-point Kriging, *Geographical Analysis*, 42(1): 78–98.

Yoo, E.-H., and Kyriakidis, P.C. (2009): Area-to-point Kriging in spatial hedonic pricing models, *Journal of Geographical Systems*, 11(4): 381–406.

Zhang, J., Kyriakidis, P.C., and Kelly, R. (2009): Geostatistical approaches to conflation of continental snow data, *International Journal of Remote Sensing*, 30(20): 5441–5451.

Goodchild, M.F., Zhang, J., and Kyriakidis, P.C. (2009): Discriminant models of uncertainty in nominal fields, *Transactions in GIS*, 13(1): 7–23.

Cao, G., Kyriakidis, P.C., and Goodchild, M.F. (2009): Prediction and simulation in categorical fields: A transition probability combination approach, in *Proceedings of the 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, Seattle, Washington, Nov. 2009.

Park, N.-W., and Kyriakidis, P.C. (2008): Geostatistical integration of different sources of elevation and its effect on landslide hazard mapping, *Korean Journal of Remote Sensing*, 24(5): 453–462.

Yoo, E.-H., and Kyriakidis, P.C. (2008): Area-to-point prediction under boundary conditions, *Geographical Analysis*, 40(4): 355–379.



- Schneider, P., Roberts, D.A., and Kyriakidis, P.C. (2008): A VARI-based relative greenness from MODIS data for computing the Fire Potential Index, *Remote Sensing of Environment*, 112(3): 1151–1167.
- Liu, X., Kyriakidis, P.C., and Goodchild, M.F. (2008): Population density estimation using regression and area-to-point residual Kriging, *International Journal of Geographical Information Science*, 22(4): 431–447.
- Legleiter, C., and Kyriakidis, P.C. (2008): Spatial prediction of river channel topography by Kriging, *Earth Surface Processes and Landforms*, 33(6): 841–867.
- Boucher, A., Kyriakidis, P.C., and Cronkite-Ratcliff, C. (2008): Geostatistical solutions for super-resolution land cover mapping, *IEEE Transactions on Geoscience and Remote Sensing*, 46(1): 272–283.
- Sales, M.H., Souza Jr., C.M., Kyriakidis, P.C., Roberts, D.A., and Vidal, E. (2007): Improving spatial distribution estimation of aboveground forest biomass with geostatistics: A case study of Rondônia, Brazil, *Ecological Modelling*, 205(1-2): 221–230.
- Ekström, M., Kyriakidis, P.C., Chappell, A., and Jones, P. (2007): Spatiotemporal stochastic simulation of monthly rainfall patterns in the United Kingdom (1980-1987), *Journal of Climate*, 20(16): 4194–4210.
- Boucher, A., and Kyriakidis, P.C. (2007): Integrating fine scale information in super-resolution land cover mapping, *Photogrammetric Engineering & Remote Sensing*, 73(8): 913–921.
- Legleiter, C., and Kyriakidis, P.C. (2006): Forward and inverse transformations between Cartesian and channel-fitted coordinate systems for meandering rivers, *Mathematical Geology*, 38(8): 927–958.
- Yoo, E.-H., and Kyriakidis, P.C. (2006): Area-to-point Kriging with inequality-type data, *Journal of Geographical Systems*, 8(4): 357–390.
- Kyriakidis, P.C., and Goodchild, M.F. (2006): On the prediction error variance of three common spatial interpolation schemes, *International Journal of Geographical Information Science*, 20(8): 823–855.
- Adler, P.B., Hille Ris Lambers, J., Kyriakidis, P.C., Guan, Q., and Levine, J.M. (2006): Climate variability has a stabilizing effect on the coexistence of prairie grasses, *Proceedings of the US National Academy of Sciences*, 103(34): 12793–12798.
- Holmes, K.W., Chadwick, O.A., Kyriakidis, P.C., Silva de Filho, E.P., Soares, J.V., and Roberts, D.A. (2006): Large-area spatially explicit estimates of tropical soil carbon stocks and response to land-cover change, *Global Biogeochemical Cycles*, 20(3), GB3004, doi:10.1029/2005GB002507.
- Kyriakidis, P.C., and Yoo, E.-H. (2005): Geostatistical prediction and simulation of point values from areal data, *Geographical Analysis*, 37(2): 124–151.
- Holmes, K.W., Kyriakidis, P.C., Chadwick, O.A., Soares, J.V. and Roberts, D.A. (2005): Multi-scale variability in tropical soil nutrients following land-cover change, *Biogeochemistry*, 74(2): 173–203.
- Washburn, L., Clark, J., and Kyriakidis, P.C. (2005): The spatial scales, distribution, and intensity of natural marine hydrocarbon seeps near Coal Oil Point, California, *Marine and Petroleum Geology*, 22(4): 569–578.
- Kyriakidis, P.C. (2005): Sequential spatial simulation using Latin hypercube sampling, in: O. Leuangthong, and C.V. Deutsch (Eds.), *Geostatistics Banff 2004: Seventh International Geostatistics Congress*, Quantitative Geology and Geostatistics, 14(1): 65–74, Kluwer Academic Publishers, Dordrecht, The Netherlands.
- Kyriakidis, P.C., Miller, N.L., and Kim, J. (2004): A spatial time series framework for simulating daily precipitation at regional scales, *Journal of Hydrology*, 297(1-4): 236–255.

CURRICULUM VITAE

Name: Hugo Loaiciga

Rank: Professor

Education: B.Sc. University of Costa Rica 1978; M.Sc. University of California Davis, 1982; Ph.D. University of California Davis, 1986.

Academic Appointments: Assistant Professor UCSB Geography 1988 ; Associate Professor, 1996; Professor 1996.

Julian Hinds Award, Environmental and Water Resources Institute & American Society of Civil Engineers. 2008

Standards Development Committee Chair Recognition, Environmental and Water Resources Institute, 2008

Fellow, American Society of Civil Engineers. 2007

Service to the Profession Award, American Society of Civil Engineers and Environmental and Water Resources Institute, 2002.

Diplômé de Langue Française, Alliance Française, Paris, 2001.

U.S. National Representative to the International Union of Geophysics and Geodesy, Appointed by the National Research Council, 1996-2003.

Registered Professional Civil Engineer, State of California, Lic. # C54328, 1995→

Editor, *EOS*, Transactions of the American Geophysical Union, Hydrology Section, 1994-1996.

Best Papers Award, Hydraulics Division, for best two papers: “Review of Geostatistics in Geohydrology” part 1 and part 2, in *Journal of Hydraulic Engineering*, 116(5), 612-652, 1991.

University of California Regents Faculty Fellowship, Board of Regents, The University of California, 1989.

Research Fellow, United States Environmental Protection Agency, Washington, D.C., Headquarters, 1988.

Environmental Science and Engineering Fellow, American Association for the Advancement of Science, Washington, D.C., 1988.

Professional Activities: Associate Editor and Editor of various journals, Chairmen of multiple national committees.

Participation in Campus Governance: Chairman of the University of California Regents Fellowships Committee for Outstanding Freshmen; member of various other Academic Senate Committees (e.g., Budget and Planning).

Extramural Support: California Water Resources Center (\$ 63,000: 2007-2009); National Science Foundation 2009 (\$ 85,000: International Programs).

(1). Publications: 1) 165 scholarly publications;
(2). List of a few leading articles or books in the last 6 years:

- (i) 2011. Loaiciga, H.A. Challenges to phasing out fossil fuels as the major source of the world's energy. **Energy and Environment**, **22(11)**, 659-679. [ARTICLE].
- (ii) 2011. Loaiciga, H.A., Pingel, T., Garcia, E. Seawater intrusion by sea-level rise: scenarios for the 21st century. **Groundwater**. [IN PRESS].
- (iii) 2009. Loaiciga, H.A. Long-term climatic change and sustainable groundwater resources management. **Environmental Research Letters**, **4**, 1-11, doi:10.1088/1748-9326/4/3/035004. [ARTICLE].
- (iv) 2006. Loaiciga, H.A. Modern-age CO₂ and its effect on seawater acidity and salinity. **Geophysical Research Letters**, **33**, L10605, doi:10.1029/2006GL026305. [ARTICLE].
- (v) 2005. Loaiciga, H.A. On the probability of droughts: the compound renewal model. **Water Resources Research**, **41**, W01009, doi:10.1029/2004WR003075. [ARTICLE].
2005. Loaiciga, H.A. Steady-state phreatic surfaces in sloping aquifers. **Water Resources Research**, **41**, W08402, doi:10.1029/2004WR003861. [ARTICLE].
- (vi) 2005. Loaiciga, H.A. Droughts, tree rings, and reservoir design. **Journal of the American Water Resources Association** **41(4)**, 949-958. [ARTICLE].

(3) list selected scholarly publications appearing within the past nine years, 2002-03 through the present. If the CV exceeds four pages, make the nine-year publication list selective and label it so.

- 1. 2011. Loaiciga, H.A. Challenges to phasing out fossil fuels as the major source of the world's energy. **Energy and Environment**, **22(11)**, 659-679. [ARTICLE].
- 2. 2011. Loaiciga, H.A., Pingel, T., Garcia, E. Seawater intrusion by sea-level rise: scenarios for the 21st century. **Groundwater**. [IN PRESS].
- 3. 2011. Loaiciga, H.A. Kinetics and seepage forces in steady-state groundwater flow. **Proceedings of the World Environmental and Water Resources Congress 2011**, ASCE Press, New York, 1038-1054.
- 4. 2011. Loaiciga, H.A. Solar Insolation on Uniformly Sloping Terrain in a Changing Climate, **Proceedings of the World Environmental and Water Resources Congress 2011**, ASCE Press, New York, 4443-4452.
- 5. 2011. Loaiciga, H.A. Sediment discharge scaling in large rivers of the world. **Proceedings of the World Environmental and Water Resources Congress 2011**, ASCE Press, New York, 4735-4748.
- 6. 2010. Loaiciga, H.A. et al. Standard Guideline for the Geostatistical Estimation and Block-averaging of Homogeneous and Isotropic Saturated Hydraulic Conductivity. **ASCE/EWRI Standard 54-10**, ASCE Press, Reston Virginia. [STANDARD OF PRACTICE].
- 2009. Loaiciga, H.A. Long-term climatic change and sustainable groundwater resources management. **Environmental Research Letters**, **4**, 1-11, doi:10.1088/1748-9326/4/3/035004. [ARTICLE].
- 7. 2009. Loaiciga, H.A. Derivation approaches for the Theis equation. **Groundwater**, **47(4)**, 1-4. [ARTICLE].

8. 2008. Loaiciga, H.A. Applications of hydrologic tracers. **Journal of Hydrologic Engineering**, 13(11), 999-1001. [ARTICLE].
9. 2008. Loaiciga, H.A. Aquifer storage capacity and maximum annual yield from long-term aquifer fluxes. **Hydrogeology Journal**, 16(2), 399-403. [ARTICLE].
10. 2008. Loaiciga, H.A. Phreatic surface in island aquifers with regular geometry and time-independent recharge and pumping. **Mathematical Geosciences**, 40, 199-211. [ARTICLE].
11. 2008. Meillier, L., Loaiciga, H.A., Clark, J.F. Ground water dating and flow-model calibration in the Kern Water Bank, California. **Journal of Hydrologic Engineering**, 13(11), 1029-1036. [ARTICLE].
12. 2008. Loaiciga, H.A. et al. Standard Guideline for Fitting Saturated Hydraulic Conductivity Using Probability Functions. **ASCE/EWRI Standard 50-2008**, ASCE Press, Reston, Virginia. [STANDARD OF PRACTICE].
13. 2008. Loaiciga, H.A. et al. Standard Guideline for Estimating the Effective Saturated Hydraulic Conductivity. **ASCE Standard 51-2008**, ASCE Press, Reston, Virginia. [STANDARD OF PRACTICE].
14. 2007. Loaiciga, H.A., Huang, A. Ponding analysis with Green-and-Ampt infiltration. **Journal Hydrologic Engineering**, 12(1), 109-112. [ARTICLE].
15. 2007. Loaiciga, H.A. Reply to Comment by Caldeira et al. (2006) on “Modern-age CO₂ and its effect on seawater acidity and salinity”. **Geophysical Research Letters**, 34, L18603, doi:10.1029/2006GL027506. [ARTICLE].
16. 2007. Loaiciga, H.A. Approach to control the depth of water in basin irrigation and wetland flooding. **Journal of Irrigation and Drainage Engineering**, 133(5), 500-504. [ARTICLE].
17. 2007. Loaiciga, H.A. The effect of the Earth’s rotation on groundwater motion. **Ground Water Journal**, 45(1), 98-100. [ARTICLE].
18. 2007. Loaiciga, H.A. and Zektser, I.S. Hydrodynamic and numerical methods to calculate submarine groundwater discharge. In **Submarine Groundwater**, p. 48-56, I.S. Zektser and R.G. Dzhamalov, eds., CRC Press Taylor & Francis Group, Boca Raton, Florida (BOOK CHAPTER).
19. 2006. Loaiciga, H.A. Modern-age CO₂ and its effect on seawater acidity and salinity. **Geophysical Research Letters**, 33, L10605, doi:10.1029/2006GL026305. [ARTICLE].
20. 2006. Leipnik, R.B., Loaiciga, H.A. Radially convergent groundwater flow in sloping terrain. **Hydrologic Sciences Journal**, 51(4), 700-712. [ARTICLE].
21. 2006. Loaiciga, H.A. Comment on “The persistence of the water budget myth and its relationship to sustainability” by J.F. Devlin and M. Sophocleous, *J. Hydrogeology*, 13:549-554, 2005. **Journal of Hydrogeology**, 14, 1383-1385. [ARTICLE].
22. 2006. Loaiciga, H.A., Yeh, W-G., Ortega-Guerrero, A. Probability Density Functions in the Analysis of Hydraulic Conductivity Data. **J. Hydrologic Engineering**, 11(5), 442-450. [(ARTICLE]. Erratum 1: *J. Hydrologic Engineering* (2008), 13(10), 998. Erratum 2: *J. Hydrologic Engineering* (2007), 12(5), 548.
23. 2005. Loaiciga, H.A. On the probability of droughts: the compound renewal model. **Water Resources Research**, 41, W01009, doi:10.1029/2004WR003075. [ARTICLE].
24. 2005. Loaiciga, H.A. Steady-state phreatic surfaces in sloping aquifers. **Water Resources Research**, 41, W08402, doi:10.1029/2004WR003861. [ARTICLE].
25. 2005. McMichael, C., Hope, A.S., Loaiciga, H.A. Distributed hydrological modelling in California semi-arid shrublands: MIKE SHE model calibration and uncertainty estimation. **Journal of Hydrology**, 317, 307-324. [ARTICLE].
26. 2005. Loaiciga, H.A. Droughts, tree rings, and reservoir design. **Journal of the American Water Resources Association** 41(4), 949-958. [ARTICLE].
27. 2005. Zektser, I.S., Loaiciga, H.A., Wolf, J. Environmental Impacts of Groundwater Overdraft: Selected Case Studies in the Southwestern United States **Journal of Environmental Geology**, 47(3), 396-404. [ARTICLE].
28. 2005. Loaiciga, H.A, Leipnik, R.B. Correlated gamma variables in the analysis of microbial densities in water; **Advances in Water Resources**, 28(4), 329-335. [ARTICLE].

29. 2005. Loaiciga, H.A., A. Huang. Flooding cycle analysis in wetlands with negligible overland drainage. In **Dynamics and Biogeochemistry of River Corridors and Wetlands**, International Association of Hydrological Sciences (IAHS) Publication 294, 122-129. (ARTICLE).
30. 2004. Loaiciga, H.A. Analytic game-theoretic approach to groundwater management. **Journal of Hydrology**, **297**, 22-33. (ARTICLE).
31. 2004. Loaiciga, H.A. Residence time, groundwater age, and solute output in steady-state groundwater systems. **Advances in Water Resources**, **27**, 681-688. (ARTICLE).
32. 2004. Loaiciga, H.A. Sustainable groundwater management: the theory of a game. **Proceedings of the World Water and Environmental Resources Congress**, June 27-July 1, Salt Lake City, Utah, p. 1-10, ASCE Press, Reston, Virginia, USA. (PROCEEDINGS ARTICLE).
33. 2003. Sato, T., Tanahashi, H., and Loaiciga, H.A. Solute dispersion in a variably saturated sand, **Water Resources Research**, **39(6)**, 1155-1161. (ARTICLE).
34. 2003. Loaiciga, H.A. Climate change and Groundwater. **Annals of the Association of American Geographers**, **93(1)**, 33-45. (ARTICLE).
35. 2003. Loaiciga, H.A., Hudak, P.F., and Minsker, B. Methods for optimizing long-term monitoring design. In **Long-term groundwater monitoring design: The State of the Art**, ASCE Press, Reston, Virginia, p. 31-56. (BOOK CHAPTER).
36. 2003. Loaiciga, H.A. Sustainability and groundwater. In **Water Resources Systems**, Bloschl, G. et al., eds., IAHS Publication No. 281, p. 313-321, IAHS Press, Wallingford, U.K. (ARTICLE).
37. 2003. Loaiciga, H.A. and Zektser, I.S. Estimation of submarine groundwater discharge. **Water Resources**, **30(5)**, 473-479. (ARTICLE).
38. 2003. Loaiciga, H.A. Hydrologic-hydraulic calibration and testing in an impacted flood plain: forensic hydrology. In **Calibration of Watershed Models**, Duan, Q., Sorooshian, S., Rousseau, A., and R. Turcotte, eds., Water Science and Applications 6, 175-184, American Geophysical Union, Washington, D.C. (BOOK CHAPTER).
39. 2003. Loaiciga, H.A. and Hudak, P.F. Storativity and specific yield. In **Encyclopedia of Water Science**, p. 937-941, B.A. Stewart and T.A. Howell, eds., Marcel-Dekker, Inc., New York. (BOOK CHAPTER).
40. 2003. Loaiciga, H.A. Sustainable ground-water exploitation. **International Geology Review**, **44(12)**, 1115-1121. (ARTICLE).



CURRICULUM VITAE

Name: David López-Carr

Rank: Associate Professor

Education: Ph.D., 2002, Department of Geography, University of North Carolina, Chapel Hill, NC.

Academic Appointments: June 2002-June 2004, National Institutes of Health (NIH) Post-doctoral Fellow, Department of Biostatistics, School of Public Health and Carolina Population Center, University of North Carolina, Chapel Hill, NC.

Honors and Awards: (Selective list)

Year(s)	Award/Honor
2004	Nystrom Award. First Place: best paper based on a dissertation presented at the Association of American Geographers annual meeting. <i>Examining the Proximate and Underlying Causes of Tropical Deforestation: Migration and Land Use in the Sierra de Lacandón National Park, Guatemala.</i>
2004	University of North Carolina Post-doctoral Award for Research Excellence (one of ten from over 700 UNC post-docs). April-May 2004.
2007	Harold C. Pillsbury Research Award for Best Public Health Presentation. University of North Carolina School of Medicine John B. Graham Research Society 39th Annual Research Day. <i>A comparison of fertility correlates on the Guatemalan agricultural frontier 2007.</i> First Author: Laura Boschini.
2008	Nobel Peace Prize VIP honoree for participation in the <i>Intergovernmental Panel on Climate Change (IPCC)</i> . ATHGO International 5th Annual Global Forum on Global Warming and Climate Change UCLA. February 28, 2008.

Professional Activities: (Selective list)

Special Appointments		
Years	Position	Type of Service
2000-present	Commission Member	Land Use and Cover Change (LUCC) and Population and Vulnerability Commissions, International Geographical Union
2004-2006	Chair	Human Dimensions of Global Change (HDGC) Specialty Group, Association of American Geographers
2006-2007	Chair	Population Geography Specialty Group (PSG), Association of American Geographers
	Scientific Steering Committee Member	International Human Dimensions Program
2007-2010	Task Force Committee Member	United Nations International Human Dimensions Program on The Earth System Science Partnership (ESSP), and the World Health Organization (WHO) project on Global Environmental Change and Human Health (GECHH). The task force is charged with launching an international research program to investigate the health risks associated with global environmental change and try to develop realistic solutions.
2008-present	Associate Editor	Population and Environment
2008-present	Editorial Board	Journal of International and Global Studies
2008-present	Steering Commission Member	The National Science Foundation (NSF) Population-Environment Research Network (PERN). Based at Columbia University's The Center for International Earth Science Information Network (CIESIN).
2008-present	Steering Board Member	International Geographical Union (IGU)



2008-present	Steering Committee Member	International Geographical Union (IGU) Land Use/Cover Change (LUCC) Commission.
2008-present	Scientific Steering Committee Member	United Nations International Human Dimensions Program.
April 2009	Organizing Board Member	United Nations International Human Dimensions Program. Open Meeting on Human Dimensions of Global Environmental Change, Bonn, Germany,
Present	Coordinating Lead Author	United Nations Environmental Program (UNEP)'s Fifth Global Environmental Outlook (GEO-5) "Land" Chapter in preparation for the Rio+20 World Summit in 2012.
Present	North American Regional Advisory Board Member	United Nations Environmental Program (UNEP)'s Fifth Global Environmental Outlook (GEO-5) board in preparation for the Rio+20 World Summit in 2012.

Conference Participation: Over 100 conference papers read.

Participation in Campus Governance: (Selective list)

University Service		
Years	Position	Type of Service
2008-present	Coordinating Committee Member	Global Studies PhD Emphasis. UCSB.
2008-present	Coordinating Committee Member	Human-Environment Dynamics PhD Emphasis. UCSB.
2009-present	Member	UCSB Faculty Senate Committee on Equity and Diversity.
2009-present	Coordinating Committee Member	UCSB Faculty Senate Committee on Sustainability.
2009-present	UCSB Representative Steering Committee Member	University of California's Center of Expertise on Migration and Health (COEMH).
2009-present	UCSB Representative	University of California Global Health Institute (UCGHI).
2010	Reviewer	UCSB Central Fellowship Awards.
2010	Member	UCSB ad hoc committee for the development of an Environmental Synthesis Center.
2010-present	Coordinating Committee Member	Population PhD Emphasis. UCSB.
2010-present	Steering Committee Member	Leonard and Gretchan Broom Center for Demography. UCSB.
2010-present	Lead Social Scientist and Representative	SBC LTER. LTER Network's Social Science Working Group.
Departmental Service (Selective list)		
Years	Position	Type of Service
2005-2006	Chair	Environmental Sustainability Committee. UCSB Geography Department.
2006-2007	Member	Social Committee. UCSB Geography Department.
2006-present	Geography Representative	UCSB study abroad program.
2007-present	Member	Curriculum Committee. UCSB Geography Department.
2008-2009	Member	Awards Committee. UCSB Geography Department.
2008-2009	Member	Graduate Committee. UCSB Geography Department.



2008-present	Member	Ad hoc Committee on PRP joint PhD program with SDSU. UCSB Geography Department.
2008-present	Member	Committee on Diversity and Outreach. UCSB Geography Department.
2010-present	Member	Social Committee. UCSB Geography Department.
2010-present	Chair	Colloquium Committee. UCSB Geography Department.

Extramural Support: (Selective list)

Years	Source	Title	Amt.	PI
6/1/05 to 5/31/10	National Institutes of Health	Career Development Award, K01. Migration, Demographic Factors, and Deforestation in Guatemala	\$486,518	PI
9/1/05 to 8/31/08	National Science Foundation	Geography and Regional Science grant (BCS-0525592). The Underlying Causes of Tropical Deforestation: Rural Migration and Environmental Degradation in Guatemala	\$116,370	PI
12/1/05 to 11/30/07	National Institutes of Health	Small Research Grant, R03. Modeling longitudinal population, health and environment dynamics in the Amazon. PI WK Pan.	\$163,000	Co-PI
8/1/07 to 7/31/11	National Science Foundation	Dynamics of Coupled Natural and Human Systems (CNH). The Impact of Economic Globalization on Human Demography, Land Use and Natural Systems in Latin America and the Caribbean. PI M Aide.	\$1,500,000 (\$134,345 to UCSB)	Co-PI
2008-2009	UCSB	Instructional Improvement Award. Development of a course in World Regional Geography.	\$4,669.52	PI
March 1, 2011 - February 28, 2014	National Oceanic and Atmospheric Administration (NOAA)	Climate Scene Investigators (CSI)-Transitions Program Grant: A Global Standardized Precipitation Index Supporting the US Drought Portal and the Famine Early Warning System Network. PIs: Chris Funk, Greg Husak, David López-Carr, Joel Michaelson, Michael Brewer (NESDIS/NCDC).	\$297,960	

Publications:

- Total number of scholarly publications: **87**
- All scholarly publications from 2010 through the present: (Selective list)

# and Notes	Year	Title and Authors	Publisher	Category
	2010	Entropy. Carr, D.L. and L. Bremer. (B-5 on last review)	In <i>Green Energy: An A to Z Guide</i> . Volume 1. Eds. J. Geoffrey Golson, Paul Robbins, Dustin Mulvaney. <i>The SAGE Reference Series on Green Society: Toward a Sustainable Future</i> . Series Editor: Paul Robbins. London: Sage Publications.	Refereed Book Chapter
	2010	A Comparison of LUCC Detection Algorithms in a Mesoamerican Lowland Tropical Forest. Suter, L. and D.L. Carr. (C-3 on last review)	Acta Geographica 5(2), pp. 109-122.	Refereed Journal Article
	2010	Maize Productivity in the Maya Biosphere Reserve, Guatemala. Lerner, A.M. and D.L. Carr. (C-2 on last review)	Acta Geographica 5(2), pp. 31-40.	Refereed Journal Article
	2010	Mapping Population and Health onto Priority Conservation Zones. Carr, D.L.	WWF PHE Series. 43 pp.	Report

	2010	Land parcel fragmentation in the Agricultural Frontier: Sierra del Lacandón National Park, Guatemala. Suter, L. and D. López-Carr	<i>Proceedings of the European Population Conference:</i> http://epc2010.princeton.edu/download.aspx?submissionId=100926	Peer-reviewed Proceedings
	2010	Population, Multi-scale Processes, and Land Use Transitions in the Ecuadorian Amazon. Pan, WK, and D. López-Carr.	<i>Proceedings of the European Population Conference:</i> http://epc2010.princeton.edu/download.aspx?submissionId=100687	Peer-reviewed Proceedings
	2010	How are population patterns different in ecological priority areas? Mapping demography onto conservation areas. López-Carr, D., M Erdman, A. Zvoleff, L. Suter.	<i>Proceedings of the European Population Conference:</i> http://epc2010.princeton.edu/download.aspx?submissionId=100685	Peer-reviewed Proceedings
	2010	The Effects of Migrant Remittances on Population-Environment Dynamics in Migrant Origin Areas: International Migration, Fertility and Consumption in Highland Guatemala. Davis, J.D. and D. López-Carr.	Population and Environment 32, pp. 216–237.	Refereed Journal Article
	2010	Population, Poverty, Environment, and Climate Dynamics in the Developing World. Bremner, J., D. López-Carr, L. Suter, J. Davis.	Interdisciplinary Environmental Review (11)2-3, pp. 127-161.	Refereed Journal Article
	2011	Social Identity, Perception and Motivation in Adaptation to Climate Risk in the Coffee Sector of Chiapas, Mexico. Frank, E., H. Eakin, and D. López-Carr.	Global Environmental Change 21(1), pp. 66-76.	Refereed Journal Article
	2011	Part I: Assessment of the State and Trends of the Global Environment. Chapter 1: Land. D. López-Carr, T. Evans, and C. Hunsberger (coordinating lead authors).	<i>Fifth Global Environmental Outlook (GEO-5):</i> 62 pp. Nairobi: United Nations Environment Programme (UNEP)	Report



CURRICULUM VITAE

Name: Joseph P. McFadden

Rank: Assistant Professor

Education:

B.A., University of Pennsylvania, Communication; World History, 1986
 M.S., University of Michigan, Natural Resources and Environment, 1993
 Ph.D., University of California, Berkeley, Integrative Biology, 1998

Academic Appointments:

1998–1999, Postdoctoral Research Fellow, Institute of Arctic Biology, University of Alaska, Fairbanks
 1999–2001, Research Associate, Department of Atmospheric Science, Colorado State University
 2002–2008, Assistant Professor, Department of Ecology, Evolution, and Behavior, University of Minnesota
 2008–2010, Adjunct Assistant Professor, Ecology, Evolution, and Behavior, University of Minnesota
 2008–present, Assistant Professor, University of California, Santa Barbara, Department of Geography

Honors and Awards:

NASA New Investigator Award in Earth Science, 2004
 American Geophysical Union, Hydrology Section, Outstanding Student Paper Award, 1996
 NASA Earth System Science Fellow, 1994–1997
 School of Natural Resources Merit Scholarship, University of Michigan, 1991–1993
 Scripps-Howard Foundation Scholarship, 1982–1983

Professional Activities:

Arctic System Science Committee, Arctic Research Consortium of the U.S. (invited; science advisory committee to the National Science Foundation), 2006–2009

Participation in

Campus Governance:

Department of Geography representative, Faculty Legislature, UCSB, 2009–2010
 Computing Committee, Earth Research Institute, UCSB, 2009–2010

Extramural Support:

Years	Source	Title	Amt.	PI
2004–2009	NASA New Investigator Program	Biophysical controls on carbon and water fluxes in changing urban/suburban ecosystems: Linking tall-tower flux observations, ground-based measurements, and remote sensing	\$343,096	J. McFadden
2005–2009	University of Minnesota, Initiative for Renewable Energy and the Environment	New technologies for full carbon accounting in developed land	\$278,233	J. McFadden



2007-2009	NSF-BE: Coupled Natural and Human Systems	Integration of human choice into models of biogeochemical cycling in urban ecosystems	\$550,000	L. Baker (J. McFadden Co-PI)
2008	NSF-LTER	A comparison of plant phylogenetic and functional diversity across urban to rural gradients in the U.S. and Europe (LTER International Supplement)	\$20,000	D. Tilman (J. McFadden senior personnel)
2008	NSF-LTER	The role of human choice in influencing household biogeochemical cycles along and urban to peri-urban gradient (LTER Social Science Supplement)	\$20,000	D. Tilman (J. McFadden senior personnel)
2009-present	NSF-BE: Coupled Natural and Human Systems	Collaborative Research: Coupling Human Choice and Biogeochemical Cycling in Urban Ecosystems	\$499,945	J. McFadden
2009-present	NSF-BCS	ULTRA-Ex: Dynamics of Urban Ecosystem Services and Their Relationship to Ecohydrology in the Los Angeles Area	\$299,429	S. Pincetl (J. McFadden Co-PI)

Publications:

28 Total Publications

Year	Title and Authors	Publisher
2002	Modelled changes in arctic tundra snow, energy and moisture fluxes due to increased shrubs. Liston, G. E., J. P. McFadden, M. Sturm, and R. A. Pielke, Sr.	<i>Global Change Biology</i> 8: 17–32
2003	RAMS 2001: Current status and future directions. Cotton, W. R., R. A. Pielke, Sr., R. L. Walko, G. E. Liston, C. J. Tremback, H. Jiang, R. L. McAnelly, J. Y. Harrington, M. E. Nicholls, G. G. Carrio, and J. P. McFadden	<i>Meteorology and Atmospheric Physics</i> 82: 5–29
2003	CO ₂ exchange between air and water in an arctic Alaskan and mid-latitude Swiss lake: importance of convective mixing. Eugster, W., G. W. Kling, T. Jonas, J. P. McFadden, A. Wüest, S. MacIntyre, and F. S. Chapin, III	<i>Journal of Geophysical Research—Atmospheres</i> 108: 4362, doi:10.1029/2002JD002653
2003	A regional study of the controls on water vapor and CO ₂ exchange in arctic tundra. McFadden, J. P., W. Eugster, and F. S. Chapin, III	<i>Ecology</i> 84: 2762–2776
2006	The coupling between terrestrial ecosystems and the atmospheric hydrological cycle. Barth, M., J. P. McFadden, J. Sun, C. Wiedinmyer	<i>NCAR Technical Note</i> TN-467+PROC
2005	Differences in surface roughness, energy, and CO ₂ fluxes in two moist tundra vegetation types, Kuparuk watershed, Alaska, U.S.A. Eugster, W., J. P. McFadden, and F. S. Chapin, III	<i>Arctic, Antarctic, and Alpine Research</i> 37(1): 61–67
2005	Arctic system on trajectory to new, seasonally ice-free state. Overpeck, J. T., M. Sturm, J. A. Francis, D. K. Perovich, M. C. Serreze, R. Benner, E. C. Carmack, F. S. Chapin III, S. C. Gerlach, L. C. Hamilton, L. D. Hinzman, M. Holland, H. P. Huntington, J. R. Key, A. H. Lloyd, G. M. MacDonald, J. P. McFadden, D. Noone, T. D. Prowse, P. Schlosser, C. Vorosmarty	<i>EOS, Transactions of the American Geophysical Union</i> 86(34): 309–313
2005	Role of land-surface changes in arctic summer warming. Chapin, F. S., III, M. Sturm, M. C. Serreze, J. P. McFadden, J. R. Key, A. H. Lloyd, A. D. McGuire, T. S. Rupp, A. H. Lynch, J. P. Schimel, J. Beringer, W. L. Chapman, H. E. Epstein, E. S. Euskirchen, L. D. Hinzman, G. Jia, C.-L. Ping, K. D. Tape, C. D. C. Thompson, D. A. Walker, and J. M. Welker.	<i>Science</i> 310(5748): 657–660



2005	Coupling between land ecosystems and the atmospheric hydrologic cycle through biogenic aerosol pathways. Barth, M, J. P. McFadden, J. Sun, C. Wiedinmyer, P. Chuang, D. Collins, R. Griffin, M. Hannigan, T. Karl, S. W. Kim, S. Lasher-Trapp, S. Levis, M. Litvak, N. Mahowald, K. Moore, S. Nandi, E. Nemitz, A. Nenes, M. Potosnak, T. M. Raymond, J. Smith, C. Still, and C. Stroud	<i>Bulletin of the American Meteorological Society</i> 86(12): 1738–1742
2009	Surface Energy Balance Measurements Above an Exurban Residential Neighbourhood of Kansas City, Missouri. Balogun, A. A., J. O. Adegoke, S. Vezhapparambu, M. Mauder, J. P. McFadden, and K. Gallo	<i>Boundary-Layer Meteorology</i> 133:299–321 DOI 10.1007/s10546-009-9421-3
2010	Influence of Seasonality and Vegetation Type on Suburban Microclimates. Peters, E. B. and J. P. McFadden	<i>Urban Ecosystems</i> 13:443-460, DOI: 10.1007/s11252-010-0128-5
2010	Biological and environmental controls on tree transpiration in a suburban landscape. Peters, E. B., J. P. McFadden, and R. A. Montgomery	<i>Journal of Geophysical Research–Biogeosciences</i> 115, G04006, DOI:10.1029/2009JG001266
2010	Carbon, nitrogen, and phosphorus fluxes in household ecosystems in the Minneapolis–Saint Paul, Minnesota, urban region. Fissore, C., L. A. Baker, S. E. Hobbie, J. Y. King, J. P. McFadden, K. C. Nelson, and I. Jakobsdottir	<i>Ecological Applications</i> (Accepted: 20100615) DOI: 10.1890/10-0386.1
2010	Twin Cities Household Ecosystem Project: Homeowner behaviors that affect nitrogen and phosphorus fluxes in household landscapes. Wein, S. P., K. C. Nelson, L. Baker, S. Hobbie, J. King, J. McFadden, C. Fissore, I. Jakobsdottir, D. Nidzgorski, D. Burk	<i>University of Minnesota, Department of Forest Resources</i>
2011	Seasonal contributions of vegetation types to suburban evapotranspiration. Peters, E. B., R. V. Hiller, and J. P. McFadden	<i>Journal of Geophysical Research–Biogeosciences</i> 116: G01003. DOI: 10.1029/2010JG001463
2011	Interpreting CO ₂ fluxes over a suburban lawn: The influence of traffic emissions. Hiller, R. V., J. P. McFadden, and N. Kljun	<i>Boundary-Layer Meteorology</i> 138: 215–230 DOI: 10.1007/s10546-010-9558-0
2011	Socio-ecohydrology and the urban water challenge. Pataki, D. E., C. G. Boone, T. S. Hogue, G. D. Jenerette, J. P. McFadden, and S. Pincetl	<i>Ecohydrology</i> 4:341–347. DOI: 10.1002/eco.209
2011	Planetary stewardship begins at home. Hobbie, S. E., L. A. Baker, C. Fissore, J. Y. King, J. P. McFadden, and K. C. Nelson	<i>Bulletin of the Ecological Society of America</i> (In press)



CURRICULUM VITAE

Name: Joel C. Michaelsen

Rank: Professor VI

Education:

PhD, 1982, University of California, Berkeley (Geography)

MA, 1977, University of California, Berkeley (Geography)

BA, 1969, University of California, Santa Barbara (Geography)

Academic Appointments:

2006-2010 Chair, UC Santa Barbara Academic Senate

2004-2006 Vice Chair, UC Santa Barbara Academic Senate

1992-present Professor, University of California, Santa Barbara

1992-1997 Chair, Department of Geography

1988-1992 Associate Professor, University of California, Santa Barbara

1988-1992 Vice Chair, Department of Geography

1982-1988 Assistant Professor, University of California, Santa Barbara

Honors and Awards:

Chair of the Department 1992 to 1997

Chair of the Academic Senate 2006 - 2008

Professional Activities: (Editorial boards, professional society committee service, officer of professional society, etc. [May be selective a list])

Participation in Campus Governance:

10-11 President, Community Housing Authority Board of Directors

08-11 Member, Campus Planning Committee

08-11 Co-Chair, Design Review Committee

08-10 Co-Chair, Chancellor's Coordinating Committee on Budget Strategy

10-11 Member, Chancellor's Coordinating Committee on Budget Strategy

08-11 Chair, Chancellor's Committee on Faculty and Staff Housing

08-11 Member, Chancellor's Committee on Student Housing

08-10 Chair, Academic Senate

08-10 Chair, Academic Senate Executive Council

08-10 Member, Systemwide Academic Council

08-10 Member, Systemwide Assembly

08-10 Member, UCSB Foundation Board of Directors

08-10 Member, UCSB Foundation Board Executive Committee

08-11 Chair, Department Space Committee

08-11 Member, Department Executive Committee



Extramural Support: (Beginning with 2002-03 list project names, funding agencies, and amount of support.)

Publications: (In this section, 1) list the total number of scholarly publications (e.g., 25 publications); 2) provide a list of the five most significant articles or books; and 3) list all scholarly publications appearing within the past nine years, 2002-03 through the present. If the CV exceeds four pages, make the nine-year publication list selective and label it so.

Selected Publications:

- Michaelsen, J., 1987. Cross validation in statistical climate forecasting models. *J. Clim. Appl. Meteor.*, 11, 1589-1600.
- Michaelsen, J., F. W. Davis, and L. Haston, 1987. 400 years of central California precipitation variability reconstructed from tree rings. *Water Res. Bull.*, 23(5), 809-818.
- Graham, N. E., J. Michaelsen and T. P. Barnett, 1987. An investigation of the ENSO cycle with statistical models. Part I: predictor field characteristics. *J. Geophys. Res.*, 92, 251-270.
- Graham, N. E., J. Michaelsen and T. P. Barnett, 1987. An investigation of the ENSO cycle with statistical models. Part II: model results. *J. Geophys. Res.*, 92, 271-289.
- Michaelsen, J., R. C. Smith and X. Zhang, 1988. Variability of pigment biomass in the California Current System determined by satellite imagery. Part II: temporal variability. *J. Geophys. Res.*, 93, 10,883-10,896.
- Michaelsen, J., 1989. Long-period fluctuations in El Nino amplitude and frequency reconstructed from tree-rings. In D. H. Peterson, ed., **Aspects of Climate Variability in the Eastern Pacific and Western Americans**, American Geophysical Union Monograph, 55, 69-74.
- Baumgartner, T. R., J. Michaelsen, L. G. Thompson, A. Soutar, R. Casey, G. Shen, 1989. The recording of interannual climatic change by high-resolution natural systems: tree-rings; coral bands; glacial ice layers; and marine varves. In D. H. Peterson, ed., **Aspects of Climate Variability in the Eastern Pacific and Western Americans**, American Geophysical Union Monograph 55, 1-14.
- Borchert, M., F. Davis, J. Michaelsen and L. D. Oyler, 1989. Interactions of factors affecting seedling recruitment of blue oak (*Quercus douglasii*) in California. *Ecology*, 70, 389-404.
- Elder, K., J. Dozier, J. Michaelsen, 1990. Snow accumulation and distribution in an alpine watershed, *Water Resources Research*, 27, 1541-1552.
- Larson, D. O. and J. Michaelsen, 1990. Impacts of climatic variability and population growth on Virgin Branch Anasazi cultural developments. *American Antiquity*, 55, 227-249.
- Michaelsen, J. and L. G. Thompson, 1992. A comparison of proxy records of El Nino/Southern Oscillation, in H. F. Diaz and V. Markgraf, eds., **Historical and Paleoclimatic Aspects of the Southern Oscillation**, 323-348. Cambridge University Press.
- Davis, F. W., D. S. Schimel, M. A. Friedl, J. Michaelsen, T. G. F. Kittel, R. Dubayah and J. Dozier, 1992. Covariance of biophysical data with digital topographic and land use maps over the FIFE site. *J. Geophys. Res.*, 97(D17), 19,009-19,021.
- Loaiciga, H. A., J. Michaelsen, S. Garver, L. Haston and R. B. Leipnik, 1992. Droughts in river basins of the western United States. *Geophys. Res. Let.*, 19(20), 2051-2054.
- Loaiciga, H. A., L. Haston and J. Michaelsen, 1993. Dendrohydrology and long-term hydrologic phenomena, *Reviews of Geophysics*, 31, 151-171.
- Haston, L and J. Michaelsen, 1994. Long-term central coastal California precipitation variability and relationships to El Nino, *Journal of Climate*, 7, 1373-1387.
- Friedl, M. A., J. Michaelsen, F. W. Davis, H. Walker, D. Schimel, 1994. Estimating grassland biomass and leaf area index using ground and satellite data, *International Journal of Remote Sensing*, 15, 1401-1420.



- Michaelsen, J., D. S. Schimel, M. A. Friedl, F. W. Davis and R. C. Dubayah, 1994, Regression tree analysis of satellite and terrain data to guide vegetation sampling and surveys, *Journal of Vegetation Science*, 5, 673-686.
- Friedl, M. A., F. W. Davis, J. Michaelsen and M. Moritz, 1995. Scaling and uncertainty in the relationship between LAI and NDVI: an analysis using a scene simulation and data from FIFE. *Remote Sensing of the Environment*, 54, 233-246.
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- Gershunov, A. J. Michaelsen and C. Gautier, 1998. Large-scale coupling between the tropical greenhouse effect and latent heat flux via atmospheric dynamics. *Journal of Geophysical Research*, 103, 6017-6031.
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- Funk, C., J. Michaelsen, J. Verdin, G. Artan, G. Husak, G. Senay, H. Gadain and T. Magadzire, 2003. The collaborative historical African rainfall model: description and evaluation. *International Journal of Climatology*, 23, 47-66.
- Funk, C. and J. Michaelsen, 2004. A simplified diagnostic model of orographic rainfall for enhancing satellite-based rainfall estimates in data poor regions. *J. Appl. Meteor.*, 43, 1366-1378.
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- Husak, G., J. Michaelsen and C. Funk, 2007. Use of the gamma distribution to represent monthly rainfall in Africa for drought monitoring applications. *Int. J. Climatol.*, 27, 935-944.
- DeFries, R. S., R. Balstad, R. Colwell, T. P. Evans, N. S.-N. Lan, J. Michaelsen, K. Seto, M. L. Wilson, 2007. Contributions of Land Remote Sensing for Decisions about Food Security and Human Health. NRC Workshop Report, National Academies Press, Washington, D. C.
- Funk, C., G. Husak, J. Michaelsen, T. Love and D. Pedreros, 2007. Third generation rainfall climatologies: satellite rainfall and topography provide a basis for smart interpolation. Proceedings of the Crop and Rangeland Monitoring Workshop, Nairobi, Kenya, EU Joint Research Center, March 2007.
- Husak, G., M. Marshall, J. Michaelsen, D. Pedreros, C. Funk and G. Galu, 2007. Crop area estimation using high and medium resolution satellite imagery in areas with complex topography. Proceedings of the Crop and Rangeland Monitoring Workshop, Nairobi, Kenya, EU Joint Research Center, March 2007.



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- Funk, C., M. D. Dettinger, J. Michaelsen, J. Verdin, M. E. Brown, M. Barlow, 2008. The warm ocean dry Africa dipole threatens food insecure Africa. *Proceedings of the National Academy of Science*, 105(32), 11,081-11,086.
- Williams, A. P., J. Michaelsen, S. W. Leavitt, C. J. Still, 2010. Using Tree Rings to Predict the Response of Tree Growth to Climate Change in the Continental United States during the Twenty-First Century. *Earth Interactions*, 14(19).
- Williams, A. P., C. D. Allen, C. I. Millar, T. W. Swetnam, J. Michaelsen, C. J. Still, S. W. Leavitt, 2010. Forest responses to increasing aridity and warmth in the southwestern United States. *Proceedings of the National Academy of Science*, 107(50), 21289-21294.
- Harrison, L., J. Michaelsen, C. Funk, G. Husak, 2011. Effects of temperature changes on maize production in Mozambique. *Climate Research*, 46, 211-222.
- Husak, G. J. Michaelsen, P. Kyriakidis, J. P. Verdin, C. Funk, G. Galu, 2011. The forecast interpretation tool – a Monte Carlo technique for blending climatic distributions with probabilistic forecasts. *International Journal of Climatology*, 31, 461-461.
- Marshall, M., G. Husak, J. Michaelsen, C. Funk, G. Pedreros, A. Adoum, in press. Testing a High Resolution Satellite Interpretation Technique for Crop Area Monitoring in Developing Countries. *International Journal of Remote Sensing*.
- Grace, K., G. Husak, L. Harrison, D. Pedreros, J. Michaelsen, in press. Using high resolution satellite imagery to estimate cropped area in Guatemala and Haiti. *Applied Geography*.
- Funk, C., J. Michaelsen, M. Marshall, in press. Mapping recent decadal climate variations in Eastern Africa and the Sahel. In M. Anderson and J. Verdin, eds., *Remote Sensing of Drought: Innovative Monitoring Approaches*. Taylor and Francis, London, UK.



CURRICULUM VITAE

Name: Daniel R. Montello

Rank: Professor

Education:

Ph.D.	1988	Psychology, Arizona State University
M.A.	1986	Psychology, Arizona State University
B.A.	1981	Psychology, The Johns Hopkins University

Academic Appointments:

2002-	Professor in the Department of Geography, UCSB
1995-	Affiliated Faculty in the Department of Psychology, UCSB
1996-02	Associate Professor in the Department of Geography, UCSB
1992-96	Assistant Professor in the Department of Geography, UCSB
1991-92	Visiting Assistant Professor in the Department of Psychology, North Dakota State University
1990-91	Research Associate at the Institute of Child Development, University of Minnesota
1989-91	Teaching Associate at the Institute of Child Development, University of Minnesota

Honors and Awards:

UCSB Regents Junior Faculty Fellowship, 1993
NIMH Postdoctoral Fellowship recipient, 1988

Professional Activities:

Member, Program Committee, Workshop on “Cognitive Engineering for Mobile GIS” at the 10th International Conference on Spatial Information Theory (COSIT ‘11) in Belfast, Maine, 2011

Member, Program Committee, Workshop on “An Interdisciplinary Approach to Understanding and Processing Sketch Maps” at the 10th International Conference on Spatial Information Theory (COSIT ‘11) in Belfast, Maine, 2011

Member, Program Committee for the 10th International Conference on Spatial Information Theory (COSIT ‘11) in Belfast, Maine, 2011

Reviewer, 33rd Annual Meeting of the Cognitive Science Society (COGSCI 2011) in Boston, Massachusetts, 2011

Member, Steering Committee for the 10th International Conference on Spatial Information Theory (COSIT ‘11) in Belfast, Maine, 2010-11

Visiting Professor, Center for Cognitive Sciences, University of Freiburg, Germany, 2010

Reviewer, 32nd Annual Meeting of the Cognitive Science Society (COGSCI 2010) in Portland, Oregon, 2010

Member, Program Committee, International Conference “Spatial Cognition 2010” in Mt. Hood, Oregon, 2010

Member, Program Committee, Workshop on “You-Are-Here 2: Spatial Awareness and Geographic Knowledge Acquisition with Small Mobile Devices” at the International Conference “Spatial Cognition 2010” in Mt. Hood, Oregon, 2010

Member, Programme Committee for Sixth International Conference on Geographic Information Science (GIScience 2010) in Zurich, Switzerland, 2009-10

Visiting Professor, Center for Cognitive Sciences, University of Freiburg, Germany, 2009

Co-Facilitator, 7th Annual Summer Institute of the Vespucci Initiative on Geographic Information Science, “Cognitive Processing and Representations of Place, Space, and Time,” June 29–July 3, in Fiesole, Italy, 2009

Member, Program Committee for Workshop, “Presenting Spatial Information: Granularity, Relevance, and Integration” at the 9th International Conference on Spatial Information Theory (COSIT ‘09) in Aber Wrac’h, France, 2009

Member, Steering Committee for the 9th International Conference on Spatial Information Theory (COSIT ‘09) in Aber Wrac’h, France, 2008-09

Instructor and Organizer, American Psychological Association Advanced Training Institute, “Geographic Information Systems (GIS) for Behavioral Research” at the University of California, Santa Barbara, 2008

Member, Program Committee, Workshop on “You-Are-Here-Maps: Creating a Sense of Place through Map-Like Representations” at the International Conference “Spatial Cognition 2008” in Freiburg, Germany, 2008

Member, Program Committee for Transactions in GIS, Special Issue on “Semantic Similarity Measurement and Geospatial Applications,” edited by Janowicz, K., Raubal, M., Schwering, A., & Kuhn, W., 2008

Member, Program Committee, International Conference “Spatial Cognition 2008” in Freiburg, Germany, 2008

Member, Programme Committee for Fifth International Conference on Geographic Information Science (GIScience 2008) in Park City, Utah, 2007-08

Academic Director, Environmental Perception and Behavioral Geography Specialty Group of the AAG, 2007-08

Co-Editor-in-Chief, *Spatial Cognition and Computation*, 2007-
 Member, Spatial Learning Network of the Spatial Intelligence and Learning Center (SILC), 2007-
 Member, Editorial Board, *Journal of Environmental Psychology*, 2007-
 Instructor, American Psychological Association Advanced Training Institute, “Geographic Information Systems for Psychological Research” in San Francisco, California, 2007
 Member, Program Committee, GI Days 2007 - Young Researchers Forum in Münster, Germany, 2007
 Member, Editorial Board, *Environment and Behavior*, 2006-
 Organized and Chaired Special Session, “Climate Change and Cognition,” at the 103rd Annual Meeting of the Association of American Geographers in San Francisco, California, 2006-07
 Member, Steering Committee for the 8th International Conference on Spatial Information Theory (COSIT ‘07) in Melbourne, Australia, 2006-07
 Member, Scientific Committee, 10th AGILE International Conference on Geographic Information Science “The European Information Society: Leading the Way with Geo-Information” in Aalborg, Denmark, 2006-07
 Academic Director, Environmental Perception and Behavioral Geography Specialty Group of the AAG, 2006-07
 Member, Review Committee, International Conference “Spatial Cognition 2006” in Bremen, Germany, 2006
 Member, Program Committee for GIScience 2006 in Muenster, Germany, 2006
 Member, Programme Committee for Fourth International Conference on Geographic Information Science (GIScience 2006) in Münster, Germany, 2005-06
 Member of Programme Committee for the International Workshop on Geographic Information Retrieval, Fourteenth Conference on Information and Knowledge Management (CIKM) in Bremen, Germany, 2005
 Member of Program Committee for the International Workshop on Spatial Issues in Language and Vision, Indian Institute of Technology in Kanpur, India, 2005
 Member, Program Committee for GIScience 2004 in College Park, MD, 2004
 Member, Review Committee, International Conference “Spatial Cognition 2004”, 2004
 Member, Midterm Review Committee, Social Sciences and Humanities Research Council of Canada (SSHRC), Initiative of the New Economy, 2004
 Corresponding Member, ICA Commission on Visualization and Virtual Environments, 2004-
 Member of Steering Committee for the 7th International Conference on Spatial Information Theory (COSIT ‘05) in Ellicottville, NY, 2004-05
 Member, Advisory Board, *Urban Mapping*, 2004-
 Organized and Chaired Special Session, “Frontiers of Behavioral Geography,” at the 100th Annual Meeting of the Association of American Geographers in Philadelphia, PA, 2003-04
 Member, Scientific Committee, European Research Conference, “Geographical Domain and Geographical Information Systems: Modelling for Wayfinding Services” in Bad Herrenalb, Germany, 2003
 Member, Editorial Board, *Spatial Cognition and Computation*, 2002-07
 Member of Program Committee for the 6th International Conference on Spatial Information Theory (COSIT ‘03) in Ittingen, Switzerland, 2002-03
 Member, Program Committee for GIScience 2002 in Boulder, CO, 2002

Participation in Campus Governance:

Member, Academic Senate Ad Hoc Committee, 2011
 Member, Chancellor's Strategy Committee on Curriculum, Instruction, and Budgets, 2009-10
 Assistant Dean of Undergraduate Studies, UCSB, 2005-09
 Member, Packard Fellowship Review Committee, 2004
 Chair, Three Academic Senate Ad Hoc Committees on Promotions, 2004
 Member, Campus Teaching Assistant Award Committee, 2004
 Member, Continuing Diversity Fellowship Awards Committee, 2004
 Member, Graduate Council, Academic Senate Committee, 2003-06
 Member, Senate Advisory Faculty, College of Creative Studies, 2003-05
 Vice-President, Board of Directors, UCSB Faculty Club, 2003-05
 Member, General Education Workgroup, Academic Senate Committee, 2003
 Chair, Steering Committee, UCSB Graduate Emphasis in Cognitive Science, 2002-05
 Vice-Chair, Department of Geography, UCSB, 2002-05
 Member, Executive Committee, College of Letters & Science, 2002-03
 Member, Academic Senate Ad Hoc Advisory Committee on the Design of the Ballot for GE Revision, 2002

Extramural Support:

Years	Project Name	Funding Agency	Amount
2009-11 Co-P.I.	Development and Assessment of Self-Assessed Scales for Everyday Environmental Knowledge (SEEK)	National Science Foundation	\$200,000
2004-06 Co-P.I.	How Does Animation Work? Eye-	National Science	\$180,000

	Movement Analysis of Dynamic Geovisualization Displays	Foundation	
2003-06 Co-P.I	ITR: 3-D Visualizations for Medical Education	National Science Foundation	\$500,000
2000-05 Co-P.I	Immersive Information Spaces for Data Access and Dissemination	National Imagery and Mapping Agency (National Geospatial Intelligence Agency)	\$439,012

Publications:

Total publications: 80

Five most significant articles or books:

1. Ishikawa, T., & Montello, D. R. (2006). Spatial knowledge acquisition from direct experience in the environment: Individual differences in the development of metric knowledge and the integration of separately learned places. *Cognitive Psychology*, 52, 93-129.
2. Montello, D. R., & Sutton, P. C. (2006). An introduction to scientific research methods in geography. Thousand Oaks, CA, & London: SAGE Publications.
3. Montello, D. R. (2005). Navigation. In P. Shah & A. Miyake (Eds.), *The Cambridge handbook of visuospatial thinking* (pp. 257-294). Cambridge: Cambridge University Press.
4. Montello, D. R., Goodchild, M. F., Gottsegen, J., & Fohl, P. (2003). Where's downtown?: Behavioral methods for determining referents of vague spatial queries. *Spatial Cognition and Computation*, 3, 185-204. Special Issue on "Spatial vagueness, uncertainty, granularity," B. Bennett, & M. Cristani (Eds.).
5. Montello, D. R. (1993). Scale and multiple psychologies of space. In A. U. Frank & I. Campari (Eds.), *Spatial information theory: A theoretical basis for GIS* (pp. 312-321). Proceedings of COSIT '93. Berlin: Springer-Verlag, Lecture Notes in Computer Science 716.

Publications since 2002 (selective list):

6. Montello, D. R., & Moyes, H. (in press). Why dark zones are sacred: Turning to behavioral and cognitive science for answers. In H. Moyes (Ed.), *Sacred darkness: A global perspective on the ritual use of caves*. Boulder, CO: University Press of Colorado.
7. Fabrikant, S. I., Montello, D. R., & Mark, D. M. (2010). The natural landscape metaphor in information visualization: The role of commonsense geomorphology. *Journal of the American Society for Information Science and Technology*, 61, 253-270.
8. Loomis, J. M., Montello, D. R., & Klatzky, R. L. (2010). Reg Golledge as an interdisciplinary geographer: Interactions with psychology. *Progress in Human Geography*, 34, 685-688.
9. Montello, D. R. (2010). You are where? The function and frustration of you-are-here (YAH) maps. *Spatial Cognition and Computation*, 10, 94-104. Special Issue on "You-are-here maps: Creating spatial awareness through map-like representations," A. Klippel, S. Hirtle, & C. Davies (Eds.).
10. Battersby, S. E., & Montello, D. R. (2009). Area estimation of world regions and the projection of the global-scale cognitive map. *Annals of the Association of American Geographers*, 99, 273-291.
11. Montello, D. R. (2009). Cognitive research in GIScience: Recent achievements and future prospects. *Geography Compass*, 3(5), 1824-1840.
12. Montello, D. R. (2009). A conceptual model of the cognitive processing of environmental distance information. In K. S. Hornsby, C. Claramunt, M. Denis, & G. Ligozat (Eds.), *Spatial information theory* (pp. 1-17). Proceedings of COSIT '09. Berlin, Heidelberg: Springer-Verlag, Lecture Notes in Computer Science 5756.
13. Montello, D. R. (2009). Cognitive geography. In R. Kitchin & N. Thrift (Eds.), *International encyclopedia of human geography*, Vol. 2 (pp. 160-166). Oxford: Elsevier Science.
14. Montello, D. R. (2009, Issue 1). Geographic orientation and disorientation: Getting lost and getting found in real and information spaces. *User Experience Magazine*, 8.
15. Fabrikant, S. I., & Montello, D. R. (2008). The effect of instructions on distance and similarity judgments in information spatializations. *International Journal of Geographical Information Science*, 22, 463-478.
16. Fabrikant, S. I., Rebich-Hespanha, S., Andrienko, N., Andrienko, G., & Montello, D. R. (2008). Novel method to measure inference affordance in static small-multiple map displays representing dynamic processes. *The Cartographic Journal*, 45, 201-215.
17. Hegarty, M., Keehner, M., Khooshabeh, P., & Montello, D. R. (2008). How spatial abilities enhance, and are enhanced by, dental education. *Learning and Individual Differences*, 19, 61-70.
18. Keehner, M., Hegarty, M., Cohen, C. A., Khooshabeh, P., & Montello, D. R. (2008). Spatial reasoning with external visualizations: What matters is what you see, not whether you interact. *Cognitive Science*, 32, 1099-1132.
19. Montello, D. R. (2008). Geographic regions as brute facts, social facts, and institutional facts. In B. Smith, D. M. Mark, & I. Ehrlich (Eds.), *The mystery of capital and the construction of social reality* (pp. 305-316). Chicago, IL: Open Court.

20. Montello, D. R. (2008). Cognitive science. In K. K. Kemp (Ed.), *Encyclopedia of geographic information science* (pp. 40-43). Thousand Oaks, CA, & London: SAGE Publications.
21. Montello, D. R. (2008). Review of "Learning to Think Spatially" by the Committee on Support for Thinking Spatially: The Incorporation of Geographic Information Science Across the K-12 Curriculum, the National Research Council. *Journal of Environmental Psychology*, 28, 104-106.
22. Hegarty, M., Keehner, M., Cohen, C. A., Montello, D. R., & Lippa, Y. (2007). The role of spatial cognition in medicine: Applications for selecting and training professionals. In G. L. Allen (Ed.), *Applied spatial cognition: From research to cognitive technology* (pp. 285-315). Mahwah, NJ: Lawrence Erlbaum.
23. Klippel, A., & Montello, D. R. (2007). Linguistic and nonlinguistic turn direction concepts. In S. Winter, M. Duckham, L. Kulik, & B. Kuipers (Eds.), *Spatial information theory* (pp. 354-372). Proceedings of COSIT '07. Berlin: Springer, Lecture Notes in Computer Science 4736.
24. Montello, D. R. (2007). The contribution of space syntax to a comprehensive theory of environmental psychology. In A. S. Kubat, Ö. Ertekin, Y. I. Güney, & E. Eyüboğlu (Eds.), *6th International Space Syntax Symposium Proceedings* (pp. iv1-iv12). Istanbul, ITÜ Faculty of Architecture.
25. Fabrikant, S. I., Montello, D. R., & Mark, D. M. (2006). The distance-similarity metaphor in region-display spatializations. *IEEE Computer Graphics and Applications*, 26, 34-44. Special Issue on "Exploring Geovisualization," T.-M. Rhyne, A. MacEachren, & J. Dykes (Eds.).
26. Friedman, A., & Montello, D. R. (2006). Global-scale location and distance estimates: Common representations and strategies in absolute and relative judgments. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 32, 333-346.
27. Hegarty, M., Montello, D. R., Richardson, A. E., Ishikawa, T., & Lovelace, K. (2006). Spatial abilities at different scales: Individual differences in aptitude-test performance and spatial-layout learning. *Intelligence*, 34, 151-176.
28. Keehner, M., Lippa, Y., Montello, D. R., Tendick, F., & Hegarty, M. (2006). Learning a spatial skill for surgery: How the contributions of abilities change with practice. *Applied Cognitive Psychology*, 20, 487-503.
29. Montello, D. R., & Sas, C. (2006). Human factors of wayfinding in navigation. In W. Karwowski (Ed.), *International encyclopedia of ergonomics and human factors*, 2nd ed. (pp. 2003-2008). London: CRC Press/Taylor & Francis, Ltd.
30. Montello, D. R., & Freundschuh, S. M. (2005). Cognition of geographic information. In R. B. McMaster & E. L. Usery (Eds.), *A research agenda for geographic information science* (pp. 61-91). Boca Raton, FL: CRC Press.
31. Montello, D. R., & Gray, M. V. (2005). Miscommunicating with isoline preference maps: Design principles for thematic maps. *Cartographic Perspectives*, 50, 24-33.
32. Fabrikant, S. I., Montello, D. R., Ruocco, M., & Middleton, R. S. (2004). The distance-similarity metaphor in network-display spatializations. *Cartography and Geographic Information Science*, 31, 237-252.
33. Montello, D. R. (2004). Review of "Representations of Space and Time" by Donna J. Peuquet. *The Geographical Review*, 94, 124-127.
34. Montello, D. R., Waller, D., Hegarty, M., & Richardson, A. E. (2004). Spatial memory of real environments, virtual environments, and maps. In G. L. Allen (Ed.), *Human spatial memory: Remembering where* (pp. 251-285). Mahwah, NJ: Lawrence Erlbaum Associates.
35. Montello, D. R. (2003). Regions in geography: Process and content. In M. Duckham, M. F. Goodchild, & M. F. Worboys (Eds.), *Foundations of geographic information science* (pp. 173-189). London: Taylor & Francis.
36. Montello, D. R., Fabrikant, S. I., Ruocco, M., & Middleton, R. S. (2003). Testing the first law of cognitive geography on point-display spatializations. In W. Kuhn, M. F. Worboys, & S. Timpf (Eds.), *Spatial information theory: Foundations of geographic information science* (pp. 316-331). Proceedings of COSIT '03. Berlin: Springer, Lecture Notes in Computer Science 2825.
37. Hegarty, M., Richardson, A. E., Montello, D. R., Lovelace, K., & Subbiah, I. (2002). Development of a self-report measure of environmental spatial ability. *Intelligence*, 30, 425-447.
38. Montello, D. R. (2002). Cognitive map-design research in the twentieth century: Theoretical and empirical approaches. *Cartography and Geographic Information Science*, 29, 283-304. Special Issue on "The history of cartography in the 20th century," M. Monmonier, & D. Woodward (Eds.).
39. Waller, D., Montello, D. R., Richardson, A. E., & Hegarty, M. (2002). Orientation specificity and spatial updating of memories for layouts. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28, 1051-1063.



CURRICULUM VITAE

Name: Dar A. Roberts

Rank: Professor

Education:

B.A., Double major Environmental Biology and Geology, Univ. Cal. Santa Barbara, 1982.

M.S., Applied Earth Sciences, Stanford University, 1986.

Ph.D. University of Washington, Department of Geological Sciences, 1991.

Academic Appointments:

2009-present Chair, Department of Geography, Univ. California, Santa Barbara

2006-2009 Vice Chair, Department of Geography, Univ. California, Santa Barbara

2003-present Professor, Department of Geography, Univ. California, Santa Barbara

1998-2002 Associate Professor, Department of Geography, Univ. California, Santa Barbara

1994-1998 Assistant Professor, Department of Geography, Univ. California, Santa Barbara

1991-1993 Postdoctoral Research Associate, Department of Geol. Sci., Univ. Washington

Honors and Awards:

1982 Outstanding Graduating Senior of the year in Geology, UC. Santa Barbara

1997,99,03 Nominated for Distinguished Teaching Award

2007/08 Recipient of UC Santa Barbara Graduate Mentorship Award

2008/09 Recipient CSIRO McMaster Research Fellowship, \$26,100 AUD

Professional Activities:

1997 Member NRC Review Panel of EDC DAAC

1999 to present Member of Editorial Board, *Remote Sensing of Environment*

2002/2003: Guest Editor, *Remote Sensing of Environment* LBA Special issue

2006-2011 Member of Sanborn Mapping Science Advisory Committee

2010-present Member HyspIRI Science Steering Group

Participation in Campus Governance:

99-04 Chair UCSB Geography Colloquium Committee

02-03 Chair, search committee for Land Use/Land-cover position

03-04 Chair UCSB Geography Colloquium Committee

03-04 Chair, search committee for Land Use/Land-cover position

04-08 Graduate Advisor, Department of Geography

04-08 Chair, Graduate Committee

05-07 Chair, Faculty Issues and Awards Committee, starting Fall, 2005

05-08 Chair, ICESS Advisory Committee

05-present Member CCUT Faculty Advisory Board

09-present Chair, Department of Geography

10-11 Chair, Graduate Mentor Awards Committee

09-10 Reviewer, UC Davis Geography Graduate Group Appeal to the UC Davis Graduate Council to not discontinue the GGG program and re-open admissions.

Extramural Support

98-02 NASA LBA-ecology , "Land cover conversion in Amazonia, the role of environment and substrate composition in modifying soil nutrient cycling and forest regeneration" \$724,034 Co-PI

98-01 National Institute for Global Environmental Change, Western Regional Center (Westgec), "Scaling up from leaves to stands: Coupling ecophysiological And hydrological models with remote sensing", \$261,000 PI

98-03 NASA CAN-97-MTPE-02, subcontract to Rice University, "Museums Teaching Planet Earth", \$118,300 Co-PI

99-01 NASA Regional Earth Science Applications Program (98-OES-06), "Center for Managing Fire Hazards at the Urban-Wildland Interface", \$568,290 PI

99-02 NASA Agricultural and Forestry Program "Implementation of Predictive Soil Modeling in the National Cooperative Soil Survey" \$386,651 Co-I

99-01 NASA Hyperspectral EOAP, Subcontract to Battelle Pacific Northwest Laboratory, \$86,000 PI

00-04 NASA EO-1 Evaluation and Validation (NRA-99-OES-01), "Hyperion Applications and Validation for Fire Hazard Assessment in the Santa Monica Mountains", \$104,489 PI

00-03 NASA EOS Interdisciplinary Science Program entitled "The role of North African Mineral Aerosols in Climate and Biogeochemistry", \$785,000 Co-I



00-03	NASA Earth System Science Fellowship Program: Mapping Wildland Fuels Using Combined Hyperspectral and Synthetic Aperture Radar for Fire Hazard Assessment"	\$68,000	PI
00-04	Department of Interior, U.S.G.S Denver, "Analysis and Modeling of Environmental Variability in Sub-Saharan Africa",	\$171,334	co-PI
00-05	U.S. Department of Transportation, "Applications of Remote Sensing to Transportation Infrastructure Management",	\$2,525,000	co-I
01-05	National Institute for Global Environmental Change, Western Regional Center (Westgec), "Scaling up from leaves to stands: Coupling ecophysiological models with remote sensing",	\$254,009	PI
01-02	NASA Earth System Science Fellowship: "Remote Sensing of Anthropogenic Biomass Burning and Forest Degradation in Madagascar: The development of Improved Landscape-level Fire Products and Resulting Improved Estimates of Ecosystem Change, Aerosol and Carbon Forcing, and Forest Fragment Status"	\$46,000	PI
01-05	NASA Carbon/LBA program "Hyperspectral Analysis of Land-cover in Rondonia",	\$220,440	PI
01-04	UC LANL (UCRP-IGPP) "Spectral Unmixing of Multispectral Thermal Imager Data",	\$87,040	PI
01-04	USDA Forest Service (Hawaii), "Development of a Fuels Map for Hawaii Using AVIRIS Imagery"	\$67,843	PI
01-05	Ball State University (NASA: 5-46105), "Innovative uses of Hyperspectral Imagery for Modeling Spatially Distributed Ecosystem Fluxes"	\$155,488	PI
02-05	NASA Earth System Science Fellowship Program: "Assessment of Airborne Fine Spatial Resolution Hyperspectral Imagery for the Monitoring of Tropical Rain Forest Composition and Structure"	\$72,000	PI
02-06	USDA Forest Service (Joint Fire Science), "Quantitative comparison of spectral indices and transformations with multi-resolution remotely sensed data using ground measurements, Implications for fire severity mapping"	\$190,177	PI
02-03	USDA Forest Service "High resolution real-time fragments for Southern California"	\$68,734	co-PI
03-06	NASA LBA Eco Phase II (Renewal proposal) "Land-cover conversion and forest degradation in Amazonia: Evaluating Environmental and Land Use Controls on Pasture Sustainability, Forest Integrity and Forest Succession"	\$363,936	PI
03-04	Los Alamos National Laboratory CARE program, "Integration of Advanced Fire Fuels Information with the Coupled Atmosphere/Fire Spread Model FIRETEC",	\$49,996	PI
05-08	NASA Carbon Cycle Science, "Multisite Integration of LIDAR and Hyperspectral Data for Improved Estimation of Carbon Stocks and Exchange"	\$546,162	PI
05-08	NASA Carbon Cycle Science, "Mechanisms Controlling Annual, Interannual and Decadal Changes in California's Carbon Budget", subcontract to UCI (Goulden, PI)	\$268,789	PI
04-06	National Geospatial Intelligence Agency, "Viper Tools: IDL/ENVI Code for Endmember Selection For Advanced Spectral Mixture Analysis"	\$242,261	PI
06-10	NASA North American Carbon Program, "Remote-Sensing methane emissions: field-validation with Seepage from marine, urban, and submerged-city sources"	\$551,151	co-PI
06-08	NASA Earth System Science Fellowship, "Validating retrievals of subpixel fire sizes and temperatures from MODIS to improve understanding and monitoring of fires"	\$78,000	PI
07-10	NSF, CCLI program, "Innovative use of environmental and spectroscopic measurements in undergraduate"	\$149,998	PI
07-11	University of Utah, subcontract to National Geospatial Intelligence Agency, NURI program, "Hyperspectral algorithms for mapping hot object temperature and trace gas emission"	\$311,206	PI
08-11	NSF Economic and Regional Science, "Collaborative Research: Living with Deforestation: Analyzing Transformations in Welfare and Land Use on an Old Amazonian Frontier"	\$141,000	co-PI
08-10	Kearney Soils Foundation, "Soil Water Balance in California at Multiple Scales"	\$88,951	co-PI
08-12	NASA Terrestrial Ecology program, " Spatial, Spectral and Temporal Requirements for Improved Hyperspectral Mapping of Plant Functional Types, Plant Species, Canopy Biophysics and Canopy Biochemistry"	\$471,608	PI
08-10	Naval Post Graduate School, "Mapping Urban Materials Using Imaging Spectrometry and Multi-return LIDAR"	\$50,000	PI



- 10-11 NASA Earth and Space Science Fellowship (NESSF) entitled “Amazonian drought response: land surface temperature patterns and ecological implications”, \$48,000 PI
- 11-12 NASA HypsIRI precursor activities, “Evaluation of Synergies between VNIR-SWIR and TIR Imagery in a Mediterranean Climate Ecosystem”, \$88,800 PI
- 10-11 NSF Rapid proposal, subcontract to UC Davis (Ustin, PI), titled “Analysis of NASA’s Advanced Visible Infrared Imaging Spectrometer Data Acquired Over Multiple Dates and Flightlines along the Northern Gulf coastline, including Barrier Islands”, \$83,626 PI

Publications:

Total Research Publications: 237

Refereed Journal Articles: 114, Books/Book Chapters: 18, Non-refereed Proceedings: 105

Five Most Significant Articles

- Roberts, D.A., Adams, J.B., and Smith, M.O., 1993, Discriminating Green Vegetation, Non-Photosynthetic Vegetation and Soils in AVIRIS Data, *Remote Sens. Environ.*, 44: 2/3 255-270.
- Roberts, D.A., Green, R.O., and Adams, J.B., 1997, Temporal and Spatial Patterns in Vegetation and Atmospheric Properties from AVIRIS, *Remote Sens. Environ.* 62: 223-240.
- Roberts, D.A., Gardner, M., Church, R., Ustin, S., Scheer, G., and Green, R.O., 1998, Mapping Chaparral in the Santa Monica Mountains using Multiple Endmember Spectral Mixture Models, *Remote Sens. Environ.* 65: 267-279.
- Roberts, D.A., Ustin, S.L., Ogunjemiyo, S., Greenberg, J., Dobrowski, S.Z., Chen, J. and Hinckley, T.M., 2004, Spectral and structural measures of Northwest forest vegetation at leaf to landscape scales, *Ecosystems*, 7:545-562.
- Ustin, S.L., Roberts, D.A., Gamon, J.A., Asner, G.P., and Green, R.O., 2004, Using Imaging Spectroscopy to Study Ecosystem Processes and Properties, *Bioscience*, 54(6) 523-534.

Journal Publications since 2005 (selection of 62)

- Dennison, P.E., Roberts, D.A., Peterson, S.H., and Rechel, J. 2005, Use of Normalized Difference Water Index for Monitoring Live Fuel Moisture, *Int. J. Rem. Sens.*, 26(5): 1035-1042.
- Legleiter, C.J., and Roberts, D.A., 2005, Effects of Channel Morphology and Sensor Spatial Resolution on image-derived depth estimates, *Remote Sens. Environ.*, 95, 231-247.
- Harper, K.A., MacDonald, E., Burton, P.J., Chen, J., Broszofski, K.D., Saunders, S.C., Euskirchen, E.S., Roberts, D., Jaiteh, M.S., and Essen, P-A, 2005, Edge Influence on Forest Structure and Composition in Fragmented Landscapes, *Conservation Biology*, 19(3): 768-782.
- Souza, C., Roberts, D.A., and Monteiro, A.L., 2005, Multi-temporal Analysis of Degraded Forests in the Southern Brazilian Amazon, *Earth Interactions*, 9 (Paper No. 19), 25 pp.
- Herold, M., and Roberts, D.A., 2005, Spectral characteristics of asphalt road aging and deterioration: Implications for remote sensing applications, *Applied Optics* 44(20), 4327-4334.
- Clark, M., Roberts, D.A., Clark, D.B., 2005, Hyperspectral discrimination of tropical rain forest tree species at leaf to crown scales, *Remote Sensing of Environment*, 96(3-4), 375-398.
- Souza, C. Roberts, D.A., and Cochrane, M.A., 2005, Combining Spectral and Spatial Information to Map Canopy Damages from Selective Logging and Forest Fires, *Remote Sens. Environ.*, 98, 329-343.
- Ballantine, J-A C., Okin, G.S., Prentiss, D.E., and Roberts, D.A. 2005, Mapping African landforms using continental scale unmixing of MODIS imagery, *Remote Sensing of Environment*, 97, 470-483.
- Dennison, P.E., Charoensiri, K., Roberts, D.A., Peterson, S.H., and Green, R.O., 2006, Wildfire temperature and Land Cover Modeling Using Hyperspectral Data, *Remote Sens. Environ.*, 100, 212-222.
- Leifer, I, Roberts, D., Margolis, J., and Kinnaman, F. 2006, In-situ Sensing of Methane Emissions from Natural Marine Hydrocarbon Seeps: A Potential Remote Sensing Technology, *Earth and Planetary Science Letters* 245, 509-522.
- Roberts, D.A, Dennison, P.E., Peterson, S., Sweeney, S. and Rechel, J. 2006, Evaluation of AVIRIS and MODIS Measures of Live Fuel Moisture and Fuel Condition in a Shrubland Ecosystem in Southern California, *J. Geophys. Res. Biogeosciences*, Vol. 111. G04S02, doi: 10.1029/2005JG000113, 16 pp.
- Powell, R., Roberts, D.A., Hess, L., and Dennison, P., 2007, Sub-pixel mapping of urban land cover using multiple endmember spectral mixture analysis: Manaus, Brazil, *Remote Sens. Environ.* 106: 253-267.
- Sonnentag, O., Chen, J.M., Roberts, D.A., Talbot, J., Halligan, K.Q., and Govind, A., 2007, Mapping tree and shrub leaf area indices in an ombrotrophic peatland through multiple endmember spectral unmixing, *Remote Sens. Environ.* 109, 342-360.
- Numata, I., Roberts, D.A., Chadwick, O.A., Schimel, J., Sampaio, F.R., Leonidas, F.C. and Soares, J.V., 2007, Characterization of Pasture Biophysical Properties and the Impact of Grazing Intensity using Remotely Sensed Data, *Remote Sens. Environ.*, 109, 314-327

- Numata, I., Roberts, D.A., Sawada, Y., Chadwick, O.A., Schimel, J.P., and Soares, J.V., 2007, Regional Characterization of pasture changes through time and space in Rondonia, *Earth Interactions*. Vol 11(Paper No. 14), DOI:10.1175/EI1232.1, 25 pp.
- Sales, M., Souza, C.M., Kyriakidis, P.C., Roberts, D.A., and Vidal, E.,C, 2007, Improving Spatial Distribution Estimation of Forest Biomass with Geostatistics: a Case study of Rondonia, Brazil, *Ecological Modeling*, 205, 221-230.
- Biggs, T.W., Dunne, T., Roberts, D.A., and Matricardi, E., 2008, Tropical Deforestation Rates, Extents and Scaling Behavior in Watersheds, Southwestern Amazon Basin, *Ecological Apps*. 18(1) 31-48.
- Schneider, P., Roberts, D.A., Kyriakidis, P.C., 2008, A VARI-based Greenness from MODIS data for Computing the Fire Potential Index, *Remote Sen. Environ.*, 112, 1151-1167.
- Numata, I., Roberts, D.A., Chadwick, O.A., Schimel, J.P., Galvao, L.S., and Soares, J.V.2008, Evaluation of hyperspectral data for pasture estimate in the Brazilian Amazon using field and imaging spectrometers, *Remote Sen. Environ.*, 112, 1569-1583.
- Rogan, J., Franklin, J., Stow, D., Miller, J., Woodcock, C., Roberts, D.,2008, Mapping Land-cover Modifications Over Large Areas: A Comparison of Machine Learning Algorithms, *Remote Sen. Environ.*, 112, 2272-2283.
- Herold, M., Roberts, D.A., Noronha, V., and Smadi, O. 2008, Imaging Spectrometry and Asphalt Road Surveys, *Transportation Research C*, 16, 153-166.
- Powell, R.L., and Roberts, D.A. 2008, Characterizing Variability of the Urban Physical Environment for a Suite of Cities in Rondonia, Brazil,, *Earth Interactions* Volume 12, Paper No. 13, 32 pp,
- Perry, E.M., and Roberts, D.A., 2008, Sensitivity of Narrow-Band and Broad-Band Indices for Assessing Nitrogen Availability and Water Stress in Annual Crop, *Agronomy Journal*. Vol. 100(4): 1211-1219.
- Eckmann, T., Roberts, D.A., and Still, C., 2008, Using Multiple Endmember Spectral Mixture Analysis to Retrieve Subpixel Fire Properties From MODIS, *Remote Sen. Environ.*, 112(10): 3773-3783.
- Peterson, S.H., Roberts, D.A., and Dennison, P.E., 2008, Mapping Live Fuel Moisture with MODIS Data: A Multiple Regression Approach, *Remote Sen. Environ.*, Volume 112 (12), 4272-4284.
- Helmer, E.H., Lefsky, M.A., and Roberts, D.A., 2009, Biomass accumulation rates of Amazonian secondary forest and biomass of old-growth forests from Landsat time series and the Geoscience Laster Altimeter System, *J. App. Remote Sens.*, Vol. 3, 033505 (27 January 2009)
- Legleiter, C.J., Roberts, D.A., and Lawrence, R.L., 2009, Spectrally based remote sensing of river bathymetry, *Earth Surface Processes and Landforms*, DOI: 10.1002/esp.1787, 21 pp.
- Dennison, P.E., and Roberts, D.A., 2009, Daytime Fire Detection Using Airborne Hyperspectral Data, *Remote Sen. Environ.*, 113(8): 1646-1657.
- Franke, J., Roberts, D.A., Halligan, K., Menz, G., 2009, Hierarchical Multiple Endmember Spectral Mixture Analysis (MESMA) of Hyperspectral Imagery for Urban Environments, *Remote Sen. Environ.*, 113(8): 1712-1723.
- Toomey, M., Roberts, D., and Nelson, B., 2009, The Influence of Epiphylls on Remote Sensing of Humid Forests, *Remote Sen. Environ.*, 113(8): 1787-1798.
- Numata, I., Cochrane, M.A., Roberts, D.A., and Soares, J.V., 2009, Determining Dynamics of Spatial and Temporal Structures of Forest Edges in South Western Amazonia, *Forest Ecology and Management*, 258, 2547-2555.
- Roberts, D.A., Bradley, E.S., Cheung, R., Leifer, I., Dennison, P.E., and Margolis, J.S., 2010, Mapping Methane Emissions from a Marine Geologic Seep Source using Imaging Spectrometry, *Remote Sens. Environ.*, 114,592-606.
- Bradley, E., Roberts, D., and Still, C 2010, Design of an Image Analysis Website for Phenological and Meteorological Monitoring. *Environmental Modelling & Software*. 25, 107-116.
- Numata, I., Cochrane, M.A., Roberts, D.A., Soares, J.V., Souza, C.M. Jr. and Sales, M.H., 2010, Biomass collapse and carbon emissions from forest fragmentation in the Brazilian Amazon, *J. Geophys. Res. Biogeosciences*. 115,G03027, doi:10.1029/2009JG001198, 10 pp.
- Bradley, E., Leifer, I., Roberts, D., 2010, Long-term Monitoring of a Marine Geologic Hydrocarbon Source by a Coastal Air Pollution Station in Southern California, *Atmosphere Environment*, 44, 4973-4981.
- Roberts, D., Bradley, E., Roth, K., Eckmann, T., Still, C., 2010, Linking Physical Geography Education and Research through the Development of an Environmental Sensing Network and Project-based Learning, *Journal of Geoscience Education*, 58, 262-274.
- Youngentob, K.N., Roberts, D.A., Held, A.A., Dennison, P.E., Jia, X., and Lindenmayer, D.B., 2011, Mapping two Eucalyptus subgenera using multiple endmember spectral mixture analysis and continuum-removed imaging spectrometry data, *Remote Sens. Environ.* 115,1115-1128.
- Bradley, E., Leifer, I., Roberts, D.A., Dennison, P.E., and Washburn, L., in press, Detection of Marine Methane Emissions with AVIRIS Imaging Spectrometer Band Ratios, *Geophys. Research Letters*.
- Galvao, L. S., dos Santos, J.R., Roberts, D.A., Breunig, F.M., Toomey, M., and de Moura, Y.M. On Intra-annual EVI variability in the dry season of tropical forest: a case study with MODIS and hyperspectral data, *Remote Sens. Environ.*, in press.

BIOGRAPHICAL SKETCH

DAVID A. SIEGEL

Earth Research Institute and Department of Geography, University of California, Santa Barbara
Santa Barbara, CA 93106-3060, USA

Voice: (805) 893-4547 FAX: (805) 893-2578 Email: davey@eri.ucsb.edu

Area of Expertise: Interdisciplinary marine science, marine bio-physics, coupling of human and marine systems, use of remote sensing tools in ecology & biogeochemistry

Academic Positions: (all at UC Santa Barbara except postdoc)

Director, Earth Research Institute (2010-present), Professor of Marine Science, Department of Geography (1998-present), Director, Institute for Computational Earth System Science (2002-2010), Professor, Donald Bren School of Environmental Science and Management (1998-2001), Associate Professor, Department of Geography (1993-1998), Assistant Professor, Department of Geography (1990-1993), Postdoctoral Scholar, Woods Hole Oceanographic Institution (1998).

Education:

1983-1988 University of Southern California; M.S., Geological Sciences (1986), Ph.D., Geological Sciences (Ocean Physics; 1988)

1977-1982 University of California, San Diego; B.S., Engineering Sciences, B.A., Chemistry

Five Most Relevant Publications:

Siegel, D.A. and B.A. Franz, 2010: Oceanography: A century of phytoplankton change. *Nature*, **466**, 569-570.

Costello, C., A. Rassweiler, D. Siegel, and others, 2010: The value of spatial information in MPA network design. *Proceedings of the National Academy of Sciences*, doi: 10.1073/pnas.0908057107.

Siegel, D.A., S. Mitarai, C. Costello and others, 2008: The stochastic nature of larval connectivity among nearshore marine populations. *Proceedings of the National Academy of Sciences*, **105**, 8974-8979.

White, C. B.E. Kendall, S.D. Gaines, D.A. Siegel and C.J. Costello, 2008: Marine reserve effects on fishery profit. *Ecology Letters*, **11**, 370-379.

Gaylord, B., S.D. Gaines, D.A. Siegel and M. Carr, 2005: Marine reserves can exploit life history and population structure to enable higher fisheries yields. *Ecological Applications*, **15**, 2180-2191.

Five Other Publications:

Cavanaugh, K.C., D.A. Siegel, D.C. Reed, and P. Dennison, 2011: Environmental controls on the giant-kelp biomass in the Santa Barbara Channel, CA. *Marine Ecology Progress Series*, **429**, 1-17.

Mitarai, S., D.A. Siegel, J.R. Watson C. Dong, and J.C. McWilliams, 2009: Quantifying connectivity in the coastal ocean with application to the Southern California Bight. *Journal of Geophysical Research*, **114**, C10026, doi:10.1029/2008JC005166.

Behrenfeld, M.J., R.T. O'Malley, D.A. Siegel, C.R. McClain, J.L. Sarmiento, and others, 2006: Climate-driven trends in contemporary ocean productivity. *Nature*, **444**, 752-755.

Siegel, D.A., B.P. Kinlan, B. Gaylord and S.D. Gaines, 2003: Lagrangian descriptions of marine larval dispersion. *Marine Ecology Progress Series*, **260**, 83-96.

Siegel, D.A., S.C. Doney and J.A. Yoder, 2002: The spring bloom of phytoplankton in the North Atlantic Ocean and Sverdrup's critical depth hypothesis. *Science*, **296**, 730-733.

Synergistic Activities:

Led the Flow, Fish and Fishing (F³) NSF biocomplexity project whose results and numerical models were used by the State of California to plan MPA's in the Southern California Bight.

Helped lead a community planning process to develop a 25 year strategic plan for the NASA Ocean Biology and Biogeochemistry program.

Member, Earth Science Subcommittee, NASA Advisory Committee (2009-present). Member, Science Steering Committee, U.S. Ocean Carbon and Biogeochemistry program (2011). Member, NRC Committee on Requirements for Sustained Ocean Color Observations (2010-present), Member, NASA SeaWiFS, SIMBIOS, MODIS and NPP Science Teams (1993-present)
Fellow, American Geophysical Union (2009), Fellow, American Association for the Advancement of Science (2008), Citation for Reviewing Excellence, *Journal of Geophysical Research* (2007), Office of Naval Research Young Investigator Program Award (1990), Woods Hole Oceanographic Institution Postdoctoral Fellowship (1989), Office of Naval Research Graduate Research Fellowship
Serve on the Research Activities Panel for the Channel Islands National Marine Sanctuary.
Conduct a field program (Plumes and Blooms) that gives ~10 undergraduate students the opportunity to go on a research cruise each year.

Associations with Graduate Students (all at UCSB unless noted):

Current: Rebecca Lawson, MarSci (Chair), James Watson, MarSci, PhD (Chair), Kyle Cavanaugh, MarSci, PhD (Chair), Kristin Landgren, Geography, MS (Chair), Camila Rudorff, MarSci (Chair), Cheryl Harrison (Member, Earth/Planetary Sci, UCSC)

Graduated: Chantal Swan, MarSci, PhD (Chair, comp 9/09), Jon Klamberg, MarSci, MS (Chair; 9/05, deceased), Heather Berkely, Bren, PhD (Member, comp 12/08), Brian Kinlan, EEMB, PhD (Mbr., 7/07, NOAA Silver Spr), Roberto Rivera, PStat, PhD (Member, completed 8/10), Crow White, EEMB, PhD (Mbr., 6/08; postdoc UCSB), Tihomir Kostadinov, MarSci, PhD (Chair, comp 9/09), Dede Toole, MarSci, PhD (Chair 6/03; Asst Sci WHOI), Eva Ortega-Retuerta, PhD (Member, Univ. Granada, Spain, compl. 10/09; postdoc; Baynuls-sur-Mer, France), Stu Goldberg, MarSci, PhD (Member, completed 11/09; postdoc Scripps Institution for Oceanography), Simon Bélanger, PhD (Université Pierre et Marie Curie, Mbr, 11/06; Faculty, Université Québec Rimouski), Stephanie Oakes, MarSci, PhD (Member, completed 3/08, Knauss fellow, NOAA, Silver Spring), Michael Robinson, Geography, PhD (Chair, complete 3/09; Faculty, Santa Barbara City College), Toby Westberry, MarSci, PhD (Chair, completed 7/05, Research Scientist, OSU) , Clarissa Anderson, MarSci, PhD (Member, completed 7/07, Research Scientist, UCSC), Mark Otero, MarSci, MS (Chair, completed 12/02; programmer SIO/UCSD), Eric Brody, Geography, MA (Chair, completed 12/97), J. Carter Ohlmann, Geography, PhD (Chair, completed 9/97; Assoc. Res. Scientist, UCSB), Sara A. Garver, Geography, PhD (Chair, completed 8/97; Assoc. Prof. CalPoly Pomona), Jens C. Sorensen, Geography, MA (Chair, completed 10/96; Team leader QAD Inc.), Raj Bose, Bren, PhD (Member, completed 7/04), Jon Warrick, Marine Sciences, PhD (Member, completed, 8/02; Staff scientist, USGS), Grace Chang, Marine Sciences, PhD (Member, completed 12/99), Heidi Dierssen, Geography, PhD (Member, completed 12/99; Assoc. Prof., UConn), Alexander Gershunov, PhD (Member, completed 12/96; researcher SIO), Kirk Waters, PhD (Member, completed 12/94; researcher NOAA)

Postdoctoral Students Supervised:

Steven L. Christie (1993-1995), Norman Nelson (1994-1995), J. Carter Ohlmann (1997-1998), Erika McPhee-Shaw (2002-2003), Satoshi Mitarai (2004-2007), Sylvain Bonhommeau (2008-2009), Chantal Swan (2009 to present), Tihomir Kostadinov (2009 to present)

Collaborators for Past 48 Months (not including UCSB investigators or former students/postdocs):

Tom Dickey (grad advisor; USC), Bob Weller (postdoc advisor; WHOI), Ken Buesseler (WHOI), Mike Beherenfeld (OSU), Chuck McClain (GSFC), Tony Michaels (USC), Scott Doney (WHOI), Dennis McGillicuddy (WHOI), Pete Raimondi (UCSC), Felipe Alberto (UWiscM), Mike Lomas (BBSR), Phillip Boyd (NIWA), James Yoder (WHOI), David Antoine (LOV), Dennis Hansell (UMiami), Stan Hooker (GSFC), Bryan Franz (GSFC), Jorge Sarmiento (Princeton), Bill Smethie (LDEO), Charles Dong (UCLA), Jim McWilliams (UCLA), Anand Gnanadesikan (GFDL), Isabel Reche (UGranada), Dylan Millet (UMn), Rachel Stanley (WHOI) , John Morrow (Biospherical Instruments),



CURRICULUM VITAE

Name: Christopher Still
Rank: Associate Professor

Education:

Ph.D. 2000 Biological Sciences, Stanford University
 B.S. 1993 Biochemistry, Colorado State University

Academic Appointments:

2010-2011 Visiting Sabbatical Fellow, Cooperative Institute for Research in Environmental Sciences (CIRES), University of Colorado at Boulder
 2007-present Associate Professor, Department of Geography, UC Santa Barbara
 2002-2007 Assistant Professor, Department of Geography, UC Santa Barbara
 2002-2003 Scientific Visitor, National Center for Atmospheric Research
 2000-2002 Postdoctoral Fellow, Berkeley Atmospheric Sciences Center, UC Berkeley

Honors and Awards:

EPA STAR Graduate Environmental Education Fellowship, 1996-1999
 DOE Alexander Hollaender Distinguished Postdoctoral Fellowship, 2000-2002
 University of California Regents' Junior Faculty Fellowship. 2004
 NASA New Investigator Award, 2004-2007
 Andrew W. Mellon Foundation New Faculty Award in Plant Ecology, 2004-2007
 NOAA/University of Colorado CIRES Visiting Sabbatical Fellowship, 2010-2011

Professional Activities:

Co-convenor of *Special Sessions* in the Biogeosciences section of the American Geophysical Union Fall meetings in 1998, 2003, 2006, 2011
 Co-chair of the *Program Committee* for the Biogeosciences section of the American Geophysical Union Fall meetings in 2005 and 2006

Participation in Campus Governance:

Member of Graduate Council, Advisory Committee Member for the following: Natural Reserve System, ICESS, CCBER Oversight Committee; Chair of UCSB Natural Reserve System Advisory Council

Extramural Support since 2002/2003:

Years	Project Name	Funding Agency	Amount
2003-2006	Linking the CO ¹⁸ O budget to global change processes	NOAA (sub-contract from UC Irvine)	\$131,167
2003-2006	Fog in the California Channel Islands: Ecosystem inputs and consequences	Andrew W. Mellon Foundation	\$310,000
2004-2007	C4 photosynthesis and the carbon cycle: An integrated plan of research and education	NASA	\$350,267
2004-2006	Measuring and modeling the isotopic composition of biosphere-atmosphere CO ₂ exchange	University of California Office of the President, Campus-Laboratory Collaborations (CLC) Program	\$112,500
2005-2006	Assessing changes in the hydrologic cycle and water usage by vegetation in the Colorado Rockies: Past, present, and future	UCSB Academic Senate	\$7,192
2007-2009	Innovative use of environmental measurements in undergraduate geographic education"	NSF	\$149,998

2008-2011	MRI: Acquisition of a Distributed Environmental Sensor Network by the Rocky Mountain Biological Laboratory	NSF	\$473,800
2008-2010	Fog drip drives summertime soil respiration in California's coastal conifer forests	Kearney Foundation of Soil Science	\$240,000
2010-2012	Understanding the impact of soil moisture on tree mortality at multiple spatial and temporal scales in a California coastal pine forest	Kearney Foundation of Soil Science	\$97,000
2010-2011	Evaluation of synergies between VNIR-SWIR and TIR imagery in a Mediterranean-climate Ecosystem		

Publications:

Total publications: 57

Five most significant articles or books:

1. Still, C.J., Foster, P.N. and S.H. Schneider. Simulating the effects of climate change on tropical montane cloud forests. *Nature* 398, 608-610 (1999).
2. Still, C.J., Berry, J.A., Ribas-Carbo, M. and B.R. Helliker. The contribution of C₃ and C₄ plants to the carbon cycle of a tallgrass prairie: An isotopic approach. *Oecologia* 136, 347-359 (2003).
3. Still, C.J., Berry, J.A., Collatz, G.J. and R.S. DeFries. The global distribution of C₃ and C₄ vegetation: carbon cycle implications. *Global Biogeochemical Cycles* 17(1), 1006, (2003).
4. Still, C.J., Randerson, J.T. and I.Y. Fung. Large-scale plant light-use efficiency inferred from the seasonal cycle of atmospheric CO₂. *Global Change Biology*, 10(8), 1240-1252 (2004).
5. Still, C.J., Riley, W.J., Biraud, S.C., Noone, D.C., Buening, N.H., Randerson J.T., Torn, M.S., Welker, J., White, J.W.C., Vachon, R., Farquhar, G.D., and J.A. Berry. The influence of clouds and diffuse radiation on ecosystem-atmosphere CO₂ and CO¹⁸O exchanges. *Journal of Geophysical Research-Biogeosciences* 114, G01018, DOI:10.1029/2007JG000675 (2009).

Publications since 2002-2003 (selective list):

6. Ribas-Carbo, M., Still, C.J., and J.A. Berry. An automated system for simultaneous analysis of $\delta^{13}\text{C}$, $\delta^{18}\text{O}$, and CO₂ concentration in small air samples. *Rapid Communications in Mass Spectrometry* V16(N5), 339-345 (2002).
7. Riley, W.J., Still, C.J., Torn, M.S., and J.A. Berry. A mechanistic model of H₂¹⁸O and C¹⁸OO fluxes between ecosystems and the atmosphere: Model description and sensitivity analyses. *Global Biogeochemical Cycles*, 16(4), 1095, (2002).
8. Randerson, J.T., Still, C.J., Ballé, J.J., Fung, I.Y., Doney, S.C., Tans, P.P., White, J.W.C., Suits, N.S., and A.S. Denning. The ¹³C discrimination of arctic and boreal biome net CO₂ exchange inferred from remote atmospheric measurements and a biosphere-atmosphere model. *Global Biogeochemical Cycles* 16(3), 1028, (2002).
9. Randerson, J.T., Collatz, G.J., Fessenden, J.E., Munoz, A.D., Still, C.J., Berry, J.A., Fung, I.Y., Suits, N.S., and A. S. Denning. A possible global covariance between terrestrial gross primary production and ¹³C discrimination: Consequences for the atmospheric ¹³C budget and its response to ENSO. *Global Biogeochemical Cycles*, 16(4), 1136, (2002).
10. Riley, W.J., Still, C.J., Torn, M.S., and J.A. Berry. A mechanistic model of H₂¹⁸O and C¹⁸OO fluxes between ecosystems and the atmosphere: Model description and sensitivity analyses. *Global Biogeochemical Cycles*, 16(4), 1095, (2002).
11. Saleska, S.R., Shaw, M.R., Fischer, M.L., Dunne, J.L., Still, C.J., Holman, M.L., and J. Harte. Plant community composition mediates both large transient decline and predicted long-term recovery of soil carbon under climate warming. *Global Biogeochemical Cycles*, 16(4), 1055 (2002).
12. Still, C.J., Berry, J.A., Ribas-Carbo, M., and B.R. Helliker. The contribution of C₃ and C₄ plants to the carbon cycle of a tallgrass prairie: An isotopic approach. *Oecologia* 136, 347-359 (2003).
13. Still, C.J., Berry, J.A., Collatz, G.J., and R.S. DeFries. The global distribution of C₃ and C₄ vegetation: carbon cycle implications. *Global Biogeochemical Cycles* 17(1), 1006, (2003).
14. Riley, W.J., Still, C.J., Helliker, B.R., Ribas-Carbo, M., and J.A. Berry. 2003. ¹⁸O composition of CO₂ and H₂O ecosystem pools and fluxes: Simulations and comparisons to measurements. *Global Change Biology* 9, 1567-1581 (2003).
15. Pataki, D.E., Ehleringer, J.R., Flanagan, L.B., Yakir, D., Bowling, D.R., Still, C.J., Buchmann, N., and J.A. Berry. The application and interpretation of Keeling plots in terrestrial carbon cycle research. *Global Biogeochemical Cycles* 17,1022, (2003).
16. Loik, M.E., Still, C.J., Huxman, T.E., and J. Harte. In situ photosynthetic freezing tolerance for plants exposed to a global warming manipulation in the Rocky Mountains, Colorado, USA. *New Phytologist*, 162, 331-341

- (2004).
17. Still, C.J., Randerson, J.T., and I.Y. Fung. Large-scale plant light-use efficiency inferred from the seasonal cycle of atmospheric CO₂. *Global Change Biology*, 10(8), 1240-1252 (2004).
 18. Still, C.J., Riley, W.J., Helliker, B.R. and J.A. Berry. Simulation of ecosystem C¹⁸O isotope fluxes in a tallgrass prairie: biological and physical controls. In *Stable Isotopes and Biosphere-Atmosphere Interactions* (Eds. Flanagan, L.B., Ehleringer, J.R. & D.E. Pataki). Elsevier-Academic Press, Physiological Ecology Series. 2005.
 19. Still, C.J., Randerson, J.T., and I.Y. Fung. Large-scale plant light-use efficiency inferred from the seasonal cycle of atmospheric CO₂. *Global Change Biology* 11(10), 1866-1866 (2005).
 20. Randerson, J.T., van der Werf, G.R., Collatz, G.J., Giglio, L., Still, C.J., Kasibhatla, P., Miller, J.B., White, J.W.C., DeFries R.S., and E.S. Kasischke. Fire emissions from C-3 and C-4 vegetation and their influence on interannual variability of atmospheric CO₂ and delta(CO2)-C-13. *Global Biogeochemical Cycles* 19 (2), GB2019 (2005).
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 22. Hoag, K.J., Still, C.J., Fung, I.Y., and K.A. Boering. Triple oxygen isotope composition of tropospheric carbon dioxide as a tracer of terrestrial gross carbon fluxes. *Geophysical Research Letters* 32 (2), L02802 (2005).
 23. Barth, M., and 22 others including C.J. Still. Coupling between land ecosystems and the atmospheric hydrologic cycle through biogenic aerosol pathways. *Bulletin of the American Meteorological Society* 1738-1742 (2005).
 24. Randerson, J.T., Masiello, C.A., Still, C.J., Rahn, T., Poorter, H., and C.B. Field. Is carbon within the global terrestrial biosphere becoming more oxidized? Implications for trends in atmospheric O₂. *Global Change Biology* 12 (2): 260-271 (2006).
 25. Pounds, J.A., Consuegra, J.A., Fogden, M.P.L., Foster, P.N., Masters, K.L., Puschendorf, R., Ron, S.R., Sánchez-Azofeifa, G.A., C.J. Still, and B.E. Young. Widespread amphibian extinctions from epidemic disease driven by global warming. *Nature* 439, 161-167 (2006).
 26. Edwards, E.J., Still, C.J., and M.J. Donoghue. The relevance of phylogeny to studies of global change. *Trends in Ecology and Evolution* 22 (5), 243-249 (2007).
 27. Fischer, D.T. and C.J. Still. Evaluating patterns of fog water deposition and isotopic composition on the California Channel Islands. *Water Resources Research* 43, W04420, DOI:10.1029/2006WR005124 (2007).
 28. Pounds, J.A., Consuegra, J.A., Fogden, M.P.L., Foster, P.N., Masters, K.L., Puschendorf, R., Ron, S.R., Sánchez-Azofeifa, G.A., Still, C.J. and B.E. Young. Global warming and amphibian losses. *Nature* 447, E5-E6 DOI:10.1038/nature05942, (2007).
 29. Edwards, E.J., Still, C.J., and M.J. Donoghue. The relevance of phylogeny to studies of global change. *Trends in Ecology and Evolution* 22 (5), 243-249 (2007).
 30. Fischer, D.T. and C.J. Still. Evaluating patterns of fog water deposition and isotopic composition on the California Channel Islands. *Water Resources Research* 43, W04420, DOI:10.1029/2006WR005124 (2007).
 31. Pounds, J.A., Consuegra, J.A., Fogden, M.P.L., Foster, P.N., Masters, K.L., Puschendorf, R., Ron, S.R., Sánchez-Azofeifa, G.A., Still, C.J. and B.E. Young. Global warming and amphibian losses. *Nature* 447, E5-E6 DOI:10.1038/nature05942, (2007).
 32. Edwards, E.J. and C.J. Still. Climate, phylogeny, and the ecological distribution of C₄ grasses. *Ecology Letters* 11, 266–276 DOI: 10.1111/j.1461-0248.2007.01144.x (2008).
 33. McDowell, N., and 13 others including C.J. Still. Measuring and modeling the stable isotope composition of biosphere-atmosphere CO₂ exchange: where are we and where are we going? *EOS* 89(10), 94-95, (4 March 2008).
 34. Williams, A.P., Still, C.J., Fischer, D.T., and S.W. Leavitt. The influence of summertime fog and overcast clouds on the growth of a coastal Californian pine: a tree-ring study. *Oecologia* DOI: 10.1007/s00442-008-1025-y (2008).
 35. Eckmann, T.C., Roberts, D.A., and C.J. Still. Using multiple endmember spectral mixture analysis to retrieve subpixel fire properties from MODIS. *Remote Sensing of the Environment*. 112(10), 3773-3783 DOI:10.1016/j.rse.2008.05.008 (2008).
 36. Bowen, G.J., West, J.B., Ehleringer, J.R., Hobson, K., Hoogewerff, J, Kendall, C., Lai, C-T., Miller, C.C., Noone, D.C., Schwarcz, H., Still, C.J., and B.H. Vaughn. Isotopic records of spatial Earth systems processes. *EOS* 90 (13), 109-110, (31 March 2009).
 37. Still, C.J., Riley, W.J., Biraud, S.C., Noone, D.C., Buening, N.H., Randerson J.T., Torn, M.S., Welker, J., White, J.W.C., Vachon, R., Farquhar, G.D., and J.A. Berry. The influence of clouds and diffuse radiation on ecosystem-atmosphere CO₂ and CO¹⁸O exchanges. *Journal of Geophysical Research-Biogeosciences* 114, G01018, DOI:10.1029/2007JG000675 (2009).
 38. Fischer, D.T., Williams, A.P. and C.J. Still. Significance of summer overcast and fog to drought stress and ecological functioning of coastal California endemic species. *J. Biogeography* DOI:10.1111/j.1365-2699.2008.02025.x. (2009).

39. Eckmann, T.C., Roberts, D.A., and C.J. Still. Measuring subpixel fire sizes and temperatures from ASTER using multiple endmember spectral mixture analysis. *Intl. J. Remote Sensing* (2009).
40. Friend, A.D., Behrenfeld, M.J., Geider, R.J., and C.J. Still. Photosynthesis in global-scale models. *PHOTOSYNTHESIS IN SILICO: Understanding complexity from molecules to ecosystems* (Eds. Laisk, A., Nedbal, L. and Govindjee). Springer (Dordrecht, The Netherlands) (2010).
41. Still, C.J. and Powell, R.L. Continental-scale distributions of plant stable carbon isotopes. *Isoscapes: Understanding movement, pattern, and process on Earth through isotope mapping* (Eds. West, J.B., Bowen, G.J., Dawson, T.E., and K. Tu). Springer (Dordrecht, The Netherlands) (2010).
42. Vaughn, B.H., Evans, C.U., White, J.W.C., Still, C.J., Masarie, K.A., and J. Turnbull. Global network measurements of atmospheric trace gas isotopes. *Isoscapes: Understanding movement, pattern, and process on Earth through isotope mapping* (Eds. West, J.B., Bowen, G.J., Dawson, T.E., and K. Tu). Springer (Dordrecht, The Netherlands) (2010).
43. Bradley, E., Still, C.J., and D.A. Roberts. Design of an image analysis website for phenological and meteorological monitoring. *Environmental Modelling & Software* 25: 107–116, (2010).
44. Edwards, E.J., *et al.* The origins of C₄ grasslands: Integrating evolutionary and ecosystem science. *Science* 328, 587 DOI: 10.1126/science.1177216 (2010).
45. Bradley, E.S., Toomey, M.P., Still, C.J., and D.A. Roberts. Multi-scale sensor fusion with an online application: Integrating GOES, MODIS, and webcam imagery for environmental monitoring. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing* DOI: 10.1109/JSTARS.2010.2048419 (2010).
46. Eckmann, T.C., C.J. Still, Roberts, D.A., and J. Michaelsen. Variations in subpixel fire properties with season and land cover in southern Africa. *Earth Interactions* DOI: 10.1175/2010EI328.1 (2010).
47. Williams, A.P., Allen, C.D., Millar, C.I., Swetnam, T.W., Michaelsen, J., Still, C.J., and S.W. Leavitt. Forest responses to increasing aridity and warmth in the southwestern United States. *Proceedings of the National Academy of Sciences USA* DOI/10.1073/pnas.0914211107 (2010).
48. Torn, M., Biraud, S., Still, C.J., Riley, W.J., and J.A. Berry. Seasonal and interannual variability in ¹³C composition of ecosystem carbon fluxes in the U.S. Southern Great Plains. *Tellus B* DOI:10.1111/j.1600-0889.2010.00519.x (2010).
49. Williams, A.P., Michaelsen, J., Leavitt, S.W., and C.J. Still. Using tree-rings to predict the response of tree growth to climate change in the continental United States during the 21st century. *Earth Interactions* DOI: 10.1175/2010EI362.1 (2010).
50. Roberts, D.A., Bradley, E., Roth, K., Eckmann, T.C, and C.J. Still, Linking physical geography education and research through the development of an environmental sensing network and project-based learning. *Journal of Geoscience Education* (2011).
51. Carbone, M.S., Still, C.J. Ambrose, A.M., Dawson, T.E., Williams, A.P., Boot, C.M., Schaeffer, S.M., and J.P. Schimel. Seasonal and episodic moisture controls on plant and microbial contributions to soil respiration. *Oecologia* (2011)
52. Liu, S., Chadwick, O.A., Roberts, D.A., and C.J. Still. Relationships between GPP, Satellite Measures of Greenness and Canopy Water Content with Soil Moisture in Mediterranean-Climate Grassland and Oak Savanna. *Applied and Environmental Soil Science* (2011).
53. Buening, N.H. Noone, D.C., Riley, W.J., Still, C.J., White, J.W.C. Influences of the hydrological cycle on observed interannual variations in atmospheric CO₁₈O. *J. Geophys. Res.*, Vol. 116, No. G4, G04001 <http://dx.doi.org/10.1029/2010JG001576> (2011).
54. Still, C.J. Cloud Forests. *Encyclopedia of Climate and Weather, 2nd Edition*, Oxford University Press (2012).



CURRICULUM VITAE

Name: Stuart Sweeney

Rank: Associate Professor

Education: Ph.D, 1999, University of North Carolina at Chapel Hill
B.A., 1990, University of California at San Diego

Academic Appointments:

1998-2005, Assistant Professor, UC Santa Barbara
2005-present, Associate Professor, UC Santa Barbara

Honors and Awards:

1999 Springer-Verlag Award for the Best Paper at Western Regional Science Association's Annual Meeting

Professional Activities:

2006, Guest Editor, *International Regional Science Review*
2004-08, Editorial Board, *Geographical Analysis*
2006-2008, Senior Advisory Panel, NSF Geography and Regional Science Program
2010-present, Advisory Panel, NSF Mathematics, Measurement, and Statistics Program

Participation in

Campus Governance:

2005-07, Member, UCSB Graduate Council
2005-present, Member, UCSB Pacific Rim Research Advisory Committee
2005 Chair, UCSB Outstanding Graduate Mentorship Award Committee
2006 Chair, UCSB Outstanding Graduate Mentorship Award Committee
2006-07, Member, UCSB NRC Advisory Committee
2009-10, Member, Broom Endowed Chair of Social Demography Search Committee, Division of Social Sciences,
2010-11, Member, UCSB Foundation Committee for the Broom Center for Demography, Division of Social Sciences, UCSB
2008-11, Member, UCSB Survey Center Advisory Board

Extramural Support:

2000-03, Spatial Clustering Among U.S. Business Enterprises National Science Foundation, Geography and Regional Science, \$69,869
2001-03, Sub-county population and housing projections Southern California Association of Governments, \$74,921
2005-08, Intraurban industrial location under accessibility and institutional constraints. National Science Foundation, Geography & Regional Science, \$100,000
2008-12, AOC: Market integration and climate as drivers of change in the Mexican Maize System: Multi-scale interactions in livelihood and land use change. National Science Foundation, Human Social Dynamics, \$627,316



Publications:

1) Total scholarly publications: 34

2) Five Most Significant:

- Sweeney, S. and E. Feser (1998). Plant size and clustering of manufacturing activity. *Geographical Analysis* 30(1), 45–64. issn: 1538-4632.
- Feser, E. and S. Sweeney (2000). A test for the coincident economic and spatial clustering of business enterprises. *Journal of Geographical Systems* 2(4), 349–373. issn: 1435-5930.
- Sweeney, S. and K. Konty (2002). Population forecasting with nonstationary multiregional growth matrices. *Geographical Analysis* 34(4), 289–312. issn: 1538-4632.
- Sweeney, S. and K. Konty (2005). Robust point-pattern inference from spatially censored data. *Environment and Planning A* 37(1), 141–159. issn: 0308-518X.
- Sweeney, S. and E. Feser (2003). “Business location and spatial externalities: tying concepts to measures”. In: *Spatially Integrated Social Science: Examples in Best Practice*. Ed. by M. Goodchild and D. Janelle, pp.239– 62.

3) Publications since 2002:

1. Feser, E. and S. Sweeney (2002). “Spatially binding linkages in manufacturing product chains.” In: *Global Competition and Local Networks*. Ed. by R. McNaughton and M. Green. 14. Ashgate, pp.111–130.
2. Feser, E. and S. Sweeney (2002). “Theory, methods and a cross-metropolitan comparison of business clustering.” In: *Industrial location economics*. Ed. by P. McCann. 15. Edward Elgar Publishing, pp.222–262. isbn: 1840646721.
3. Sweeney, S. and K. Konty (2002). Population forecasting with nonstationary multiregional growth matrices. *Geographical Analysis* 34(4). 16, 289–312. issn: 1538-4632.
4. Feser, E. and S. Sweeney (2003). Out-migration, depopulation, and the geography of US economic distress. *International Regional Science Review* 26(1). 18, 38. issn: 0160-0176.
5. Sweeney, S. (2003). *Population and Household Projections Methodology for Cities and Subregions*. Tech. rep. 20. Southern California Association of Governments.
6. Sweeney, S. and E. Feser (2003). “Business location and spatial externalities: Tying concepts to measures.” In: *Spatially Integrated Social Science: Examples in Best Practice*. Ed. by M. Goodchild and D. Janelle. 19. Oxford University Press, pp.239–262.
7. Holmes, K., D. Roberts, S. Sweeney, I. Numata, E. Matricardi, T. Biggs, G. Batista, and O. Chadwick (2004). Soil databases and the problem of establishing regional biogeochemical trends. *Global Change Biology* 10(5). 22, 796–814. issn: 1365-2486.
8. Sweeney, S. (2004). Regional Occupational Employment Projections: Modeling Supply Constraints in the Direct-Requirements Approach. *Journal of Regional Science* 44(2). 23, 263–288. issn: 1467-9787.
9. Feser, E., S. Sweeney, and H. Renski (2005). A Descriptive Analysis of Discrete US Industrial Complexes. *Journal of Regional Science* 45(2). 25, 395–419. issn: 1467-9787.
10. Soleri, D., D. Cleveland, F. Aragón C, M. Fuentes L, H. Ríos L, and S. Sweeney (2005). Understanding the potential impact of transgenic crops in traditional agriculture: Maize farmers’ perspectives in Cuba, Guatemala and Mexico. *Environmental Biosafety Research* 4(3). 27, 141–166. issn: 1635-7922.
11. Sweeney, S. and H. Goldstein (2005). Accounting for migration in regional occupational employment projections. *The Annals of Regional Science* 39(2). 26, 297–316. issn: 0570-1864.



12. Sweeney, S. and K. Konty (2005). Robust point-pattern inference from spatially censored data. *Environment and Planning A* 37(1). 24, 141–159. issn: 0308-518X.
13. Sweeney, S. and E. Middleton (2005). Multiregional cohort enrolment projections: matching methods to enrolment policies. *Population, Space and Place* 11(5). 28, 361–380. issn: 1544-8452.
14. Feser, E. and S. Sweeney (2006). On the State of the Geography in the US Bureau of Labor Statistics Covered Wages and Employment (ES-202) Series. *International Regional Science Review* 29(3). 30, 247. issn: 0160-0176.
15. Roberts, D., P. E. Dennison, S. Peterson, S. Sweeney, and J. Rechel (2006). Evaluation of Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) and Moderate Resolution Imaging Spectrometer (MODIS) Measures of Live Fuel Moisture and Fuel Condition in a Shrubland Ecosystem in Southern California. *J. Geophys. Res. Biogeosciences* 111(G4). 32, G04S02. doi: 10.1029/2005JG000113.
16. Sweeney, S. (2006). The Politics of Small Numbers and Transactions. *International Regional Science Review* 29(3). 29, 227. issn: 0160-0176.
17. Soleri, D., D. Cleveland, G. Glasgow, S. Sweeney, F. Cuevas, M. Fuentes, L. Ríos, et al. (2008). Testing assumptions underlying economic research on transgenic food crops for Third World farmers: Evidence from Cuba, Guatemala and Mexico. *Ecological Economics* 67(4), 667–682. issn: 0921-8009.
18. Sweeney, S. (2009). Small Area Population and Interregional Migration Estimates. Tech. rep. 0. Southern California Association of Governments.
19. Nagle, N., S. Sweeney, and P. Kyriakidis (2011). A Geostatistical Linear Regression Model for Small Area Data. *Geographical Analysis* 43(1). 0, 38–60. issn: 1538-4632.



CURRICULUM VITAE

Name: Libe Washburn

Rank: Professor

Education:

B.S Mechanical Engineering, 1974, University of Arizona, May

M.S. Engineering Science, 1978, University of California at San Diego, CA

Ph.D. Engineering Science, 1982, University of California at San Diego, CA

Academic Appointments:

1998-present Professor, Department of Geography, University of California, Santa Barbara, CA

1993-1998, Associate Professor, Department of Geography, University of California, Santa Barbara, CA

1991-1993, Assistant Professor, Department of Geography, University of California, Santa Barbara, CA

1985-1990, Research Assistant Professor of Physical Oceanography, Center for Earth Sciences, University of Southern California, Los Angeles, CA

1982-1985, Postgraduate Research Oceanographer, Scripps Institution of Oceanography, La Jolla, California

1977-1982, Research Assistant and Teaching Assistant, Dept. of Applied Mechanics and Engineering Sciences, University of California, San Diego, CA

1975-1977, Aeroballistics Engineer, General Dynamics, Convair Division, San Diego, CA

Professional Activities

Selected

Associate Editor, Journal of Atmospheric and Oceanic Technology, 2006-2009

Member, Board of Governors of the Southern California Coastal Ocean Observing System, 2005 - present

Chair, Board of Governors of the Southern California Coastal Ocean Observing System, 2008–present

Member, Long Term Ecological Research Network Information System Advisory Committee (NISAC), 2006-present

Member, 2006-present, Long-term Ecological Research (LTER) Technology Committee

Numerous proposal reviews for NSF, NOAA, Sea Grant, among others

Numerous journal article reviews for Science, Journal of Geophysical Research – Oceans, Journal of Marine Research, Journal of Marine Systems, Journal of Physical Oceanography, CalCOFI Reports, Marine Technology Journal, among others.

Participation in Campus Governance:

Selected

Chair, Interdepartmental Graduate Program in Marine Science (IGPMS)

Chair, Advisory Committee for Institute for Crustal Studies, 2003-2010

Member, Academic Senate Council on Research and Instructional Resources



Extramural Support

Years	Source	Title	Amt.	PI
1 October 2010 – 30 September 2013	NSF	NSF: Collaborative research: Acclimation and adaptation to ocean acidification of key ecosystem components in the California Current System	\$1,991,475 (\$473,354 to UCSB)	G. Hofmann (PI), L. Washburn (co-PI), C.A. Blanchette (co-PI), other PIs and co-PIs at UCD, UCSC, Stanford, UH, MBAR, and OSU
15 September 2010 – 31 August 2014	NSF	NSF: Collaborative research: The propagating response of the Inner shelf to wind relaxations in a coastal upwelling system	\$1,569,247 (\$698,120 to UCSB)	L. Washburn (PI), C.J. Ohlmann (Co-PI), M.A. Moline (CalPoly, PI), O. Schofield (Rugers, PI)
22 July 2010 – 21 July 2014	NASA	Satellite and land-based remote sensing of atmospheric wind relaxations and the oceanic response in the California Current Large Marine Ecosystem	\$634,694	M.R. Fewings (PI), L. Washburn (Co-PI), and C. Dorman (SIO/UCSD, Co-PI)
15 April 2010 – 31 March 2013	NSF	The Influence of Coastal Trapped Waves on the Inner Continental Shelf	\$376,868	M.R. Fewings (PI), L. Washburn (Co-PI)
1 July 2009 – 30 June 2011	NOAA	Southern California Coastal Ocean Observing System	\$111,569	L. Washburn (PI), M.A. Brzezinski (Co-PI)
1 July 2008 – 1 July 2010	NOAA	Supplemental funding for HF radar	\$75,000	L. Washburn (PI)
1 July 2008 – 30 June 2009	NOAA	Southern California Coastal Ocean Observing System: Harmful algal blooms	\$41,570	PI with M. Brzezinski (Co-PI)
1 August 2007 – 1 August 2009	California State Water Board	Monitoring the microbiology of the outflow wastewater plume	\$330,000	Co-PI with C. Ohlmann (PI) and T. Holden (Co-PI)
1 September 2006 – 31 August 2007	NOAA	HF radar national network data management development – part 2	\$40,000	PI
1 June 2006 – 30 June 2007	NOAA Channel Islands National Marine Sanctuary	Maintenance of PISCO-CINMS moorings in the Channel Islands National Marine Sanctuary	\$18,200	Co-PI with Jennifer Caselle (PI)
1 June 2005 – 30 June 2006	NOAA Joint Institute for Marine Observations	HF radar national network data management development	\$68,499	PI
1 March 2005 – 28 February 2006	University of California Sea Grant	Responding to an extreme storm driven increase in oil and gas seepage from natural seeps along the California coast	\$10,000	Co-PI with Ira Leifer (PI), Jordan Clark (Co-PI), Bruce Luyendyk (Co-PI), and James Boles (Co-PI)
1 March 2005 – 28 February 2006	NOAA National Underwater Research Program	Survival of methane in rising marine bubble plumes	\$85,977	Co-PI with Jordan Clark (PI), Bruce Luyendyk (Co-PI), and Ira Leifer (Co-PI)
1 February 2005 – 31 December 2007	California Coastal Conservancy	Coastal Ocean Current Monitoring Program, Short-medium range resolution/Long Range HF Radars,	\$1,101,380	PI
1 February 2005 – 31 Dec 2007	California Coastal Conservancy	Coastal Ocean Current Monitoring Program, Two bight-scale sections using and underway CTD	\$85,159	PI



1 January 2005 – 31 December 2009	David and Lucile Packard Foundation & Gordon and Betty Moore Foundation	Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)	\$8,009,470	One of four PI's with Steven Gaines, Robert Warner, and Gretchen Hoffman
1 July 2004 – 30 June 2006	University of California Energy Institute	Temporal variability of hydrocarbon gas flux and composition in natural marine seeps near Coal Oil Point California	\$35,000	PI, Jordan Clark (Co-PI)
1 March 2004 – 28 Feb 2007	National Science Foundation	Collaborative Research: Stochastic models for the coastal ocean	\$459,874	Co-PI with Carter Ohlmann (PI), and Arthur Mariano (Co-PI)
1 July 2003 – 30 June 2005	University of California Energy Institute	Variability of gas composition and flux intensity in natural marine hydrocarbon seeps	\$34,000	Co-PI with Jordan Clark (PI)
1-July-2003 – 30 June 2004	University of California	Adding value to the network for environmental observations of the coastal ocean	\$187,517	Co-PI with Margaret McManus and John Largier (PI's)
1 July 2002 – 30 June 2004	California Energy Institute	"Variability of gas composition and flux intensity in natural marine hydrocarbon seeps:	\$38,000	Co-PI with Jordan Clark (PI)

Publications:

89 total publications, Five significant publications:

Melton, C., L. Washburn, and C. Gotschalk, 2009, Wind relaxations and poleward flow events in a coastal upwelling system on the central California coast, *J. Geophys. Res., Oceans*, 114, C11016, doi:10.1029/2009JC005397. (MS student paper)

Bassin, C.J., L. Washburn, M.A. Brzezinski, and E.E. McPhee-Shaw, 2005, Sub-mesoscale coastal eddies observed by high frequency radar: A new mechanism for delivering nutrients to kelp forests in the Southern California Bight, *Geophys. Res. Lett.*, 32, L12604, doi:10.1029/2005GL023017. (MS student paper)

Beckenbach, E.H., and L. Washburn 2004, "Low frequency waves in the Santa Barbara Channel observed by high frequency radar", *J. Geophys. Res.*, 109, doi:10.1029/2003JC00199. (PhD student paper)

Nishimoto, M.M., and L. Washburn, 2002, Patterns of coastal eddy circulation and abundance of pelagic juvenile fish in the Santa Barbara Channel, California, USA, *Marine Ecology Progress Series*, 241, 183-199. (PhD student paper)

Washburn, L., M. Swenson, J.L. Largier, P.M. Kosro, and S.R. Ramp, 1993, Cross-shelf sediment transport by an anti-cyclonic eddy off Northern California, *Science*, 261, 1560-1564.

Selected publications from 2002-present:

Nishimoto, M.M., and L. Washburn, 2002, Patterns of coastal eddy circulation and abundance of pelagic juvenile fish in the Santa Barbara Channel, California, USA, *Marine Ecology Progress Series*, 241, 183-199.

Washburn, L., K. A. McClure, B. H. Jones, and S. M. Bay, 2003, Spatial Scales and Evolution of Stormwater Plumes in Santa Monica Bay, *Marine Environmental Research*, 56, 103-125.

Clark, J. F., I. Leifer, L. Washburn, and B. P. Luyendyk, 2003, Compositional changes in natural gas bubble plumes: Observations from the Coal Oil Point marine hydrocarbon seep field, *Geo-Marine Letters*, 23, 187-193.

Beckenbach, E.H., and L. Washburn 2004, "Low frequency waves in the Santa Barbara Channel observed by high frequency radar", *J. Geophys. Res.*, 109, doi:10.1029/2003JC00199.

Warrick, J.A., Mertes, L.A.K., Washburn L., and Siegel, D.A., 2004, "A conceptual model for river plume dispersal and forcing in the Santa Barbara Channel, California, based on field and remote sensing observations", *Continental Shelf Research*, 24, 2029-2043.

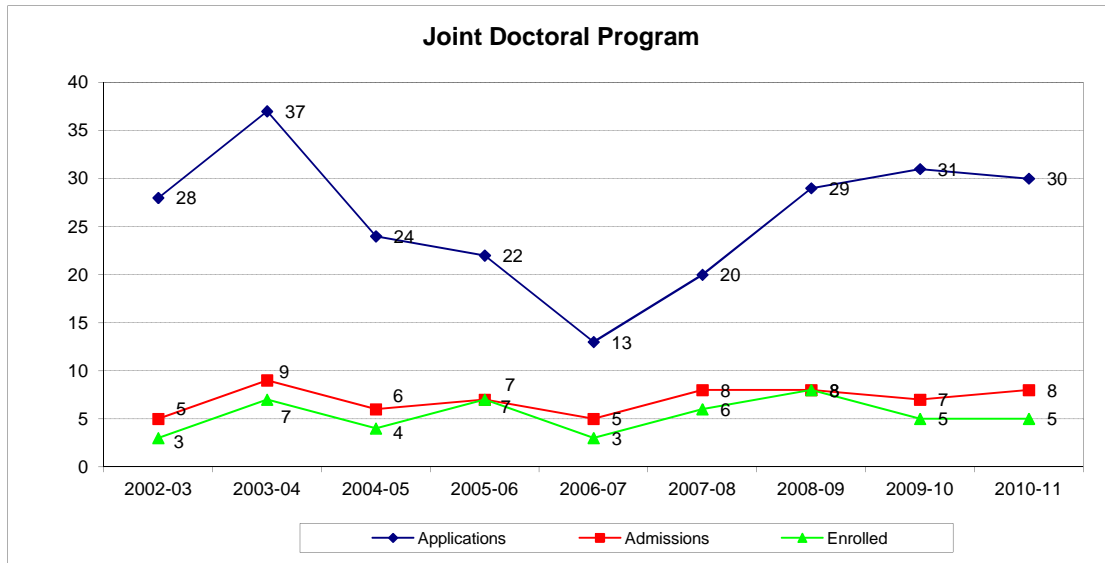


- Emery B.M., L. Washburn, and J.A. Harlan, 2004, "Evaluating Radial Current Measurements from CODAR High-Frequency Radars with Moored Current Meters," *Journal of Atmospheric and Oceanic Technology*, 21, 8, 1259-1271.
- DiGiacomo, P.M., L. Washburn, B. Holt, and B.H. Jones, 2004, "Coastal pollution hazards in Southern California observed by SAR imagery: Stormwater plumes, wastewater plumes, and natural hydrocarbon seeps", *Marine Pollution Bulletin*, 49, 1013-1024.
- Gaylord, B., D.C. Reed, L. Washburn, and P.T. Raimondi. 2004. Physical-biological coupling in spore dispersal of kelp forest macroalgae. *Journal of Marine Systems* 49: 19-39.
- Washburn, L., Jordan F. Clark, and P. Kyriakidis, 2005, The spatial scales, distribution, and intensity of natural marine hydrocarbon seeps near Coal Oil Point, California, *Marine and Petroleum Geology*, 22, 569–578.
- Bassin, C.J., L. Washburn, M.A. Brzezinski, and E.E. McPhee-Shaw, 2005, Sub-mesoscale coastal eddies observed by high frequency radar: A new mechanism for delivering nutrients to kelp forests in the Southern California Bight, *Geophys. Res. Lett.*, 32, L12604, doi:10.1029/2005GL023017.
- Cudaback, C., L. Washburn, and E.P. Dever, 2005, Inner-shelf circulation near Pt. Conception California, *J. Geophys. Res.*, 110, C10007, doi:10.1029/2004JC002608.
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Section 5

Graduate Student Data

GRADUATE STUDENT ADMISSIONS



	<u>2002-03</u>	<u>2003-04</u>	<u>2004-05</u>	<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Geography - UCSB-SDSU Joint Doctoral Program									
Applications	28	37	24	22	13	20	29	31	30
Admissions	5	9	6	7	5	8	8	7	8
% Admitted	18%	24%	25%	32%	38%	40%	28%	23%	27%
Enrolled	3	7	4	7	3	6	8	5	5
% Enrolled (Take Rate)	60%	78%	67%	100%	60%	75%	100%	71%	63%

UCSB Division of Math, Life, & Physical Sciences									
Applications	1357	1594	1,614	1,688	1,646	1,766	1,816	1696	1832
Admissions	481	512	444	488	454	493	488	442	376
% Admitted	35%	32%	28%	29%	28%	28%	27%	26%	21%
Enrolled	167	187	157	164	145	159	145	152	133
% Enrolled (Take Rate)	35%	37%	35%	34%	32%	32%	30%	34%	35%

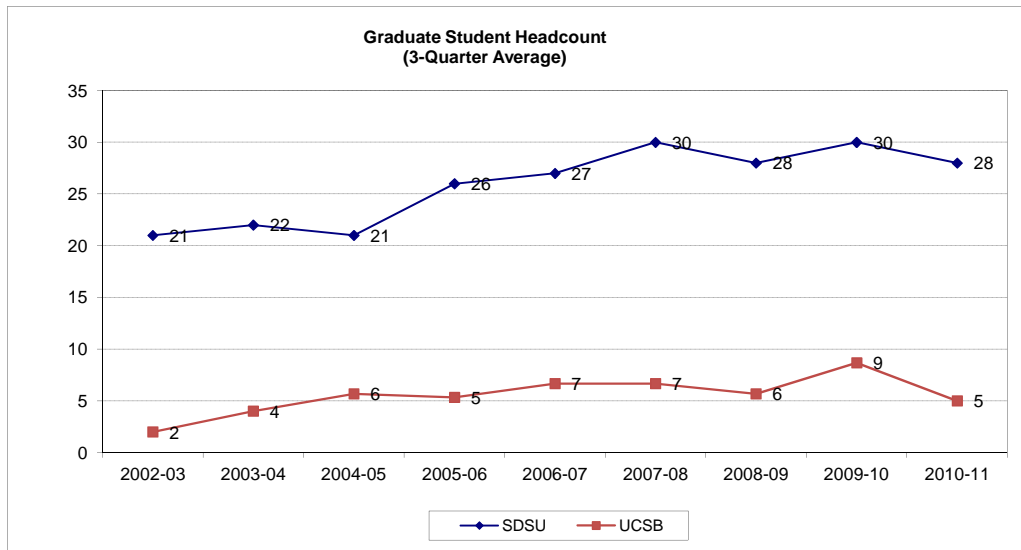
UCSB College of Letters and Science									
Applications	2,884	3,282	3,393	3,565	3,632	3,835	3,886	3,820	3982
Admissions	1,056	1,071	995	1,070	1,063	1,128	1,093	987	878
% Admitted	37%	33%	29%	30%	29%	29%	28%	26%	22%
Enrolled	405	420	369	380	381	389	385	377	335
% Enrolled (Take Rate)	38%	39%	37%	36%	36%	34%	35%	38%	38%

UCSB Campus									
Applications	6267	7172	6583	6,654	6,718	7,022	7,413	7,209	7615
Admissions	2092	1989	1859	1,974	2,039	2,235	2,107	2,019	1907
% Admitted	33%	28%	28%	30%	30%	32%	28%	28%	25%
Enrolled	847	838	748	750	738	876	780	806	745
% Enrolled (Take Rate)	40%	42%	40%	38%	36%	39%	37%	40%	39%

* Percent admitted is the number students who were admitted divided by the number of students who applied. Percent matriculating is the number of new students who enrolled divided by the number of students who were admitted. The number of applicants is based upon the total number of applicants forwarded to the Graduate Division by individual departments. Graduate students who defer admission are included in the data for the year into which they have been deferred.

Source: UCSB Office of Admissions Planning File, Graduate Division Applicant File, Institutional Research and Planning Statistical Extract File, SDSU Analytic Studies & Institutional Research

Graduate Student Headcount



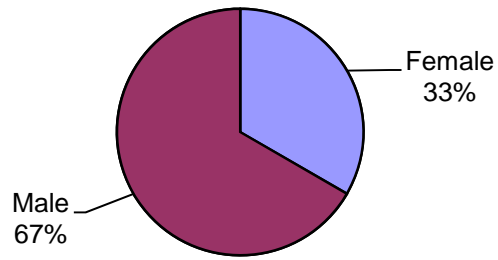
Enrollment of Graduate Majors (3-Quarter Average)

	<u>2002-03</u>	<u>2003-04</u>	<u>2004-05</u>	<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Geography - UCSB-SDSU Joint Doctoral Program									
SDSU	21	22	21	26	27	30	28	30	28
UCSB	<u>2</u>	<u>4</u>	<u>6</u>	<u>5</u>	<u>7</u>	<u>7</u>	<u>6</u>	<u>9</u>	<u>5</u>
Total Doctoral Students	23	26	27	31	34	37	34	39	33
UCSB Division of Math, Life, & Physical Sciences									
Masters/Unclassified	68	71	69	62	52	43	45	51	51
PhD	<u>604</u>	<u>662</u>	<u>678</u>	<u>679</u>	<u>685</u>	<u>688</u>	<u>678</u>	<u>688</u>	<u>649</u>
Total Graduate	671	733	747	741	737	730	723	738	699
UCSB College of Letters and Science									
Masters/Unclassified	207	207	191	170	174	156	165	189	188
PhD	<u>1,427</u>	<u>1,495</u>	<u>1,482</u>	<u>1,492</u>	<u>1,518</u>	<u>1,554</u>	<u>1,530</u>	<u>1,551</u>	<u>1,489</u>
Total Graduate	1,634	1,702	1,672	1,662	1,692	1,709	1,695	1,740	1,676
UCSB Campus									
Masters/Credential/Unclassified	574	592	547	520	512	559	555	594	592
PhD	<u>2,204</u>	<u>2,334</u>	<u>2,278</u>	<u>2,284</u>	<u>2,260</u>	<u>2,328</u>	<u>2,318</u>	<u>2,365</u>	<u>2,311</u>
Total Graduate	2,777	2,925	2,824	2,804	2,773	2,887	2,873	2,959	2,903

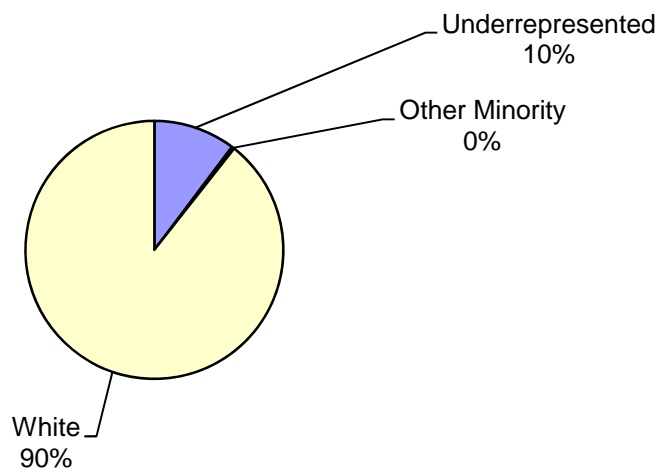
* The full 3-quarter average headcount is based on the number of students enrolled as of the 15th class day of the quarter, summed for the three regular academic quarters, and divided by three. The headcount includes double/triple majors at full value for each major at the department, division, and college levels with no duplication within a single division or college.

Sources: UCSB Institutional Research and Planning Statistical Extract File, SDSU Analytic Studies & Institutional Research

Gender of Graduate Students 2010-2011



Ethnicity of Graduate Students 2010-11



Student Gender and Ethnicity (3-Quarter Average)

	<u>2002-03</u>	<u>2003-04</u>	<u>2004-05</u>	<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Geography - UCSB-SDSU Joint Doctoral Program									
Total Graduates	23	26	27	31	34	37	34	39	33
Percent International	22%	19%	22%	26%	30%	30%	18%	18%	12%
Percent Female	30%	35%	41%	32%	35%	32%	32%	38%	33%
Total Domestic Graduates	18	21	21	23	24	26	28	32	29
Percent Underrepresented	0%	0%	10%	9%	4%	0%	0%	0%	10%
Percent Minority	0%	5%	15%	9%	4%	4%	0%	0%	10%
<hr/>									
UCSB Division of Math, Life, & Physical Sciences									
Total Graduates	671	733	747	741	737	730	723	738	700
Percent International	16%	17%	16%	15%	16%	15%	14%	14%	16%
Percent Female	36%	36%	36%	34%	36%	38%	38%	40%	39%
Total Domestic Graduates	564	610	630	629	620	621	622	637	591
Percent Underrepresented	6%	6%	6%	6%	6%	5%	6%	7%	7%
Percent Minority	13%	14%	14%	14%	15%	13%	16%	16%	16%
<hr/>									
UCSB College of Letters and Science									
Total Graduates	1,634	1,702	1,672	1,662	1,689	1,709	1,695	1,740	1,676
Percent International	14%	13%	13%	12%	12%	12%	12%	12%	13%
Percent Female	44%	44%	43%	44%	44%	46%	46%	46%	47%
Total Domestic Graduates	1,409	1,474	1,457	1,463	1,478	1,500	1,496	1,530	1,463
Percent Underrepresented	11%	9%	9%	10%	10%	11%	11%	11%	12%
Percent Minority	18%	17%	16%	18%	17%	18%	20%	20%	20%
<hr/>									
UCSB UCSB Campus									
Total Graduates	2,777	2,925	2,824	2,804	2,773	2,887	2,873	2,959	2,914
Percent International	22%	20%	20%	18%	18%	18%	18%	17%	18%
Percent Female	43%	43%	43%	44%	44%	46%	46%	47%	46%
Total Domestic Graduates	2,172	2,334	2,272	2,295	2,284	2,357	2,362	2,451	2,394
Percent Underrepresented	11%	10%	10%	10%	10%	11%	12%	12%	12%
Percent Minority	19%	19%	19%	20%	19%	20%	22%	22%	23%

* All percentages are based on the three-quarter average headcount enrollment. Percent Underrepresented is the number of domestic students who indicate that their ethnicity is American Indian/Alaskan Native, African-American, or Chicano/Latino, divided by the total number of domestic students. Percent Minority is the number of domestic students who indicate that their ethnicity is American Indian/Alaskan Native, African-American, Chicano/Latino, Asian, Filipino, or East Indian/Pakistani, divided by the total number of domestic students. Percent International is the number of students with international visas divided by the total number of students.

Sources: UCSB Institutional Research and Planning Statistical Extract File, SDSU Analytic Studies & Institutional Research

Comparative New Graduate Student Academic Achievement*

	<u>2002-03</u>	<u>2003-04</u>	<u>2004-05</u>	<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Geography - UCSB-SDSU Joint Doctoral Program									
Undergraduate GPA Average **	3.29	3.37	3.70	3.83	3.26	3.57	3.30	3.57	3.11
Graduate GPA from previous institution	3.55	3.66	3.89	3.85	3.87	3.69	3.89	3.83	3.78
GRE-Verbal Average	567	587	490	505	580	560	591	547	530
GRE-Verbal Average Percentile	74%	75%	56%	55%	78%	72%	76%	79%	67%
GRE-Quantitative Average	677	673	710	727	620	727	677	657	564
GRE-Quantitative Average Percentile	71%	69%	71%	72%	37%	78%	65%	58%	44%
GRE-Analytical Writing Average	-	4.8	4.8	4.4	4.5	4.3	4.3	4.7	4.5
GRE-Analytical Writing Average Percentile	-	57%	45%	47%	51%	50%	47%	60%	62%
<hr/>									
UCSB Division of Math, Life, & Physical Sciences									
Undergraduate GPA Average	3.55	3.50	3.50	3.53	3.51	3.60	3.55	3.54	3.56
GRE-Verbal Average	543	556	541	546	552	578	539	542	534
GRE-Verbal Average Percentile	68%	70%	67%	67%	69%	75%	67%	68%	67%
GRE-Quantitative Average	715	724	718	723	715	717	725	724	728
GRE-Quantitative Average Percentile	78%	78%	75%	74%	72%	75%	77%	77%	78%
GRE-Analytical Writing Average	-	4.6	4.6	4.6	4.6	4.6	4.4	4.4	4.3
GRE-Analytical Writing Average Percentile	-	54%	51%	54%	54%	57%	49%	52%	54%
<hr/>									
UCSB College of Letters and Science									
Undergraduate GPA Average	3.55	3.53	3.53	3.58	3.53	3.59	3.60	3.53	3.57
GRE-Verbal Average	554	563	551	563	561	567	561	554	549
GRE-Verbal Average Percentile	70%	71%	69%	70%	71%	73%	71%	70%	70%
GRE-Quantitative Average	662	671	662	668	657	662	669	677	681
GRE-Quantitative Average Percentile	67%	66%	64%	62%	60%	63%	66%	67%	68%
GRE-Analytical Writing Average	-	4.8	4.8	4.7	4.8	4.7	4.5	4.4	4.4
GRE-Analytical Writing Average Percentile	-	61%	57%	59%	59%	59%	55%	54%	55%
<hr/>									
UCSB Campus									
Undergraduate GPA Average	3.52	3.49	3.5	3.56	3.49	3.52	3.55	3.49	3.55
GRE-Verbal Average	546	547	539	575	548	545	544	540	543
GRE-Verbal Average Percentile	68%	68%	66%	67%	68%	68%	68%	67%	69%
GRE-Quantitative Average	673	674	670	675	667	680	673	675	692
GRE-Quantitative Average Percentile	69%	67%	65%	64%	62%	67%	67%	67%	70%
GRE-Analytical Writing Average	-	4.8	4.7	4.7	4.7	4.6	4.5	4.3	4.3
GRE-Analytical Writing Average Percentile	-	60%	55%	58%	57%	54%	52%	51%	53%

* Summary of available data, Please see Cohort New Student Achievement for Ns for each indicator

** This is the average undergraduate upper division GPA reported by students on the Graduate Division application.

Sources: UCSB Office of Admissions Planning File, Graduate Division Applicant File, SDSU Analytic Studies & Institutional Research

Cohort New Student Achievement

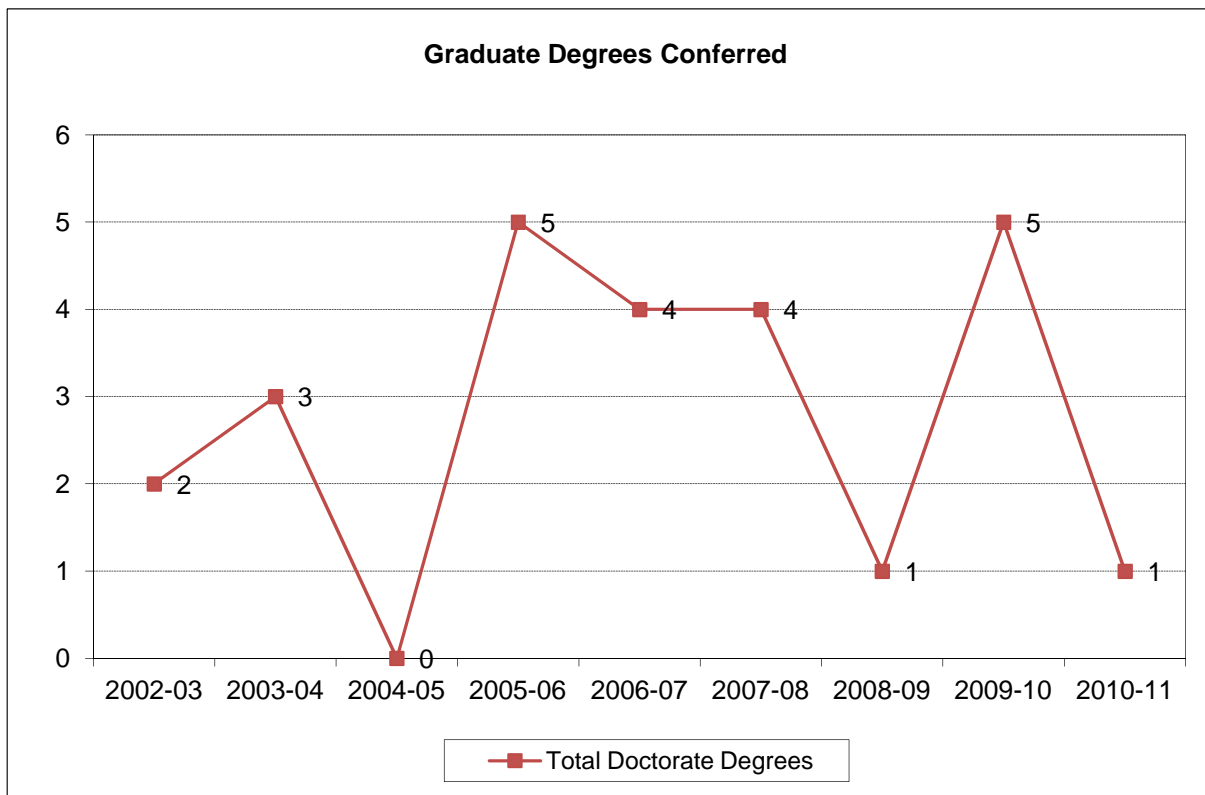
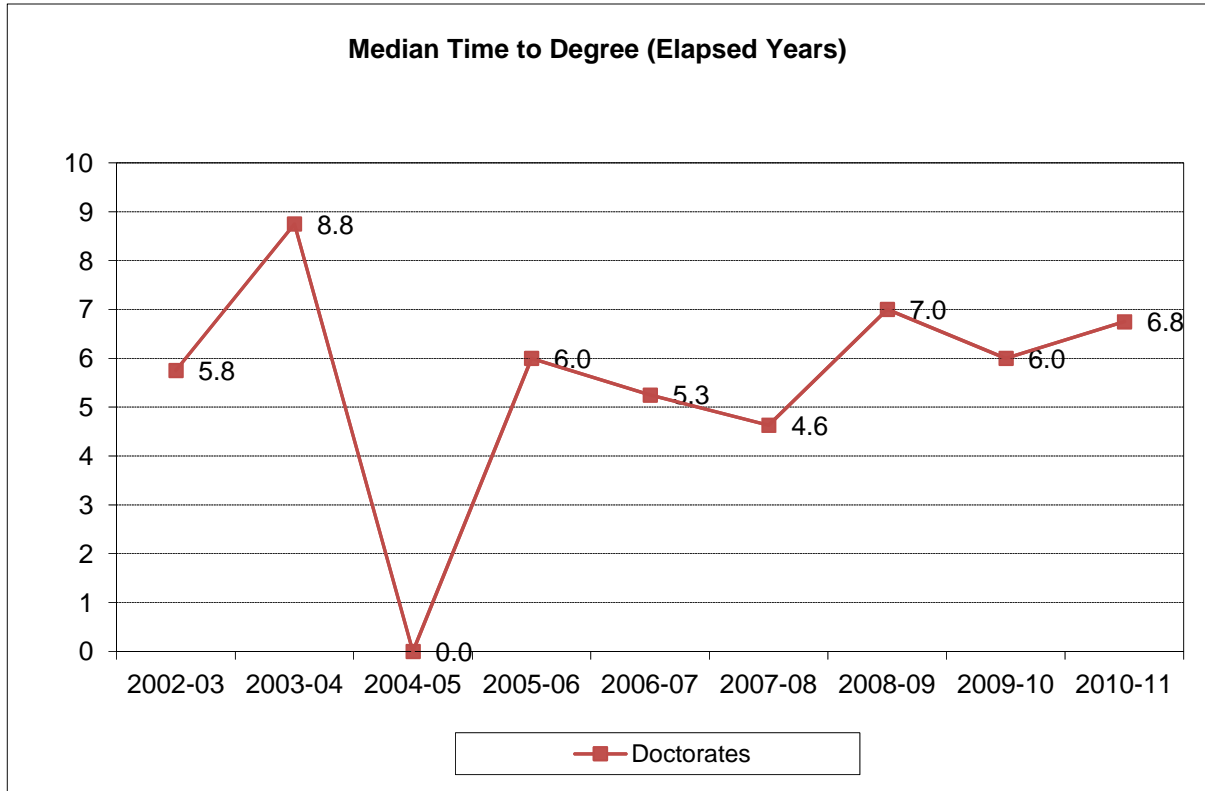
Cohort Year	Cohort Size	UG_GPA	GD_GPA	GRE_V	GRE_Q	GRE_VPCT	GRE_QPCT	GRE_AW	GRE_AWPCT
2002-03	3		3.57	660	800	93	99		
2002-03		3.29	3.30	500	620	59	63		
2002-03			3.78	540	610	70	51		
		3.29	3.55	567	677	74	71		
2003-04	7	3.40		550	750	73	82	4.5	47
2003-04		3.10	3.40	600	560	80	48		
2003-04		3.25	4.00	700	580	97	48		
2003-04			3.40	430	700	39	71	5	67
2003-04				740	790	99	96		
2003-04									
2003-04		3.74	3.82	500	660	60	68		
		3.37	3.66	587	673	75	69	4.8	57
2004-05	4	3.79	4.00	490	730	57	78	5	
2004-05		3.97	4.00	530	750	66	79	4.5	45
2004-05		3.35	3.68	450	650	45	57		
2004-05									
		3.70	3.89	490	710	56	71	4.8	45
2005-06	7					33	57	4	32
2005-06		3.98	3.86	330	750	12	81	4.5	45
2005-06		3.88	3.95	560	610	75	48	4.5	52
2005-06			4.00	460	740	48	80	4	32
2005-06				460	710	48	70	4.5	52
2005-06				610	750	85	79	4.5	52
2005-06		3.64	3.60	610	800	86	92	5	67
		3.83	3.85	505	727	55	72	4.4	47
2006-07	3	3.79	3.96	520	630	64	52	4.5	51
2006-07		2.99	3.78	650	480	92	22	4.5	51
2006-07		3.00	3.86	570	750			4.5	
		3.26	3.87	580	620	78	37	4.5	51
2007-08	6			570	730	78	78	6	96
2007-08		3.46	3.58	710	770	97	89		
2007-08		3.73	4.00	610	640	87	57	4.5	52
2007-08		3.60		360	800	20	94	2.5	2
2007-08				540	760	69	82		
2007-08		3.50	3.50	570	660	78	66		
		3.57	3.69	560	727	72	78	4.3	50

Cohort New Student Achievement

Cohort Year	Cohort Size	UG_GPA	GD_GPA	GRE_V	GRE_Q	GRE_VPCT	GRE_QPCT	GRE_AW	GRE_AWPCT
2008-09	8	3.64	3.87	520	520	64	29	5.5	86
2008-09		3.89	4.00	710	670	97	64	5	71
2008-09		2.58	3.88	480	680	55	68	4.5	54
2008-09		2.18	3.70			57	63	3	7
2008-09		3.25	4.00	620	730	89	79	4	33
2008-09		3.85	3.91	700	770	97	88	5	77
2008-09			3.81	530	600	67	47	3.5	17
2008-09		3.68	3.92	580	770	79	84	4	32
		3.30	3.89	591	677	76	65	4.3	47
2009-10	5	3.85				90	54	5	71
2009-10		3.36	3.56	500	620	61	53	4.5	58
2009-10		3.37	3.90			90	57	4.5	52
2009-10		3.54	3.90	560	580	76	42	5	71
2009-10		3.72	3.96	580	770	80	85	4.5	47
		3.57	3.83	547	657	79	58	4.7	60
2010-11	5	3.25	3.8	640	680	92	66	4.5	67
2010-11		2.52	3.79	500	420	62	16	4.5	63
2010-11		3.70	3.80	460	760	52	84	4	45
2010-11		3.38	3.69	430	350	43	8	4.5	63
2010-11		2.71	3.82	620	610	87	48	5	70
		3.11	3.78	530	564	67	44	4.5	62

WHERE STUDENTS OBTAINED THEIR BACCALAUREATE AND MASTER'S DEGREES 2002-2011		
	BA/BS Institutions	MA/MS Institutions
2002	University of Buffalo	San Diego State University
	California State University - Chico	San Diego State University
	San Diego State University	San Diego State University
2003	Carleton University	California State University-Fullerton
	University of Colorado	San Diego State University
	San Diego State University	San Diego State University
	University of California - Berkeley	University College London
	University of California - Santa Barbara	San Diego State University
	Adam Mickiewicz University (Poland)	Adam Mickiewicz University (Poland)
	Wuhan Technical University (China)	Wuhan Technical University (China)
2004	California State University - Fullerton	California State University-Fullerton
	Humboldt State University	San Diego State University
	Illinois State University	Clark University
	San Diego State University	San Diego State University
2005	University of Muenster (Germany)	University of Muenster (Germany)
	Occidental College	California State University-Northridge
	San Diego State University	San Diego State University
	San Diego State University	San Diego State University
	University of California - Berkeley	University of California-Davis
	Zhejiang University (China)	East Michigan University
	Arizona State University	George Washington University
2006	Clark University	Clark University
	Texas Christian University	San Diego State University
	University of California - Santa Barbara	San Diego State University
2007	Montana State University	San Diego State University
	Northwestern University	Victoria University of Wellington (New Zealand)
	Seoul National University (Korea)	Seoul National University (Korea)
	University of California-Davis	San Diego State University
	Yonsei University (Korea)	University Wisconsin- Eau Claire
	University of California - Berkeley	California State University - Long Beach
2008	East Carolina State University	California State University-Northridge
	California State University - Fullerton	California State University-Fullerton
	Pontifica Catolica (Peru)	San Diego State University
	University of Oklahoma	University of Oklahoma
	University of California - Riverside	San Diego State University
	University of Wisconsin - Eau Claire	Univesity for Peace (Costa Rica)
	Binghamton University	San Diego State University
	University of California (San Diego)	Columbia University

WHERE STUDENTS OBTAINED THEIR BACCALAUREATE AND MASTER'S DEGREES 2002-2011		
	BA/BS Institutions	MA/MS Institutions
2009	Concord University	Kent State
	California State University - San Marcos	San Diego State University
	Idaho State University	San Diego State University
	Peking University (China)	University of Cincinnati
	Whitman College	San Diego State University
2010	California Polytechnic University - San Luis Obispo	San Diego State University
	Ohio Wesleyan University	University California-Irvine
	Catawba College	University of South Florida
	University of California - San Diego	University at Albany
	University of California - San Diego	San Diego State University
2011	National Taiwan (China)	University of Buffalo
	Southern Connecticut State University	San Diego State University
	Southwest Normal University (China)	San Diego State University
	University of California - Santa Barbara	San Diego State University
	University of Texas, Austin	University of Oxford
	University of Vermont	San Diego State University



Graduate Degrees Conferred by Gender and Ethnicity

	<u>2002-03</u>	<u>2003-04</u>	<u>2004-05</u>	<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Geography - UCSB-SDSU Joint Doctoral Program									
Total Doctorate Degrees	2	3	0	5	4	4	1	5	1
Percent International	50%	0%	0%	0%	0%	50%	0%	40%	0%
Percent Female	0%	67%	0%	20%	25%	50%	0%	40%	0%
Percent Underrepresented	0%	0%	0%	0%	0%	0%	0%	40%	0%
Percent Minority	0%	0%	0%	0%	0%	0%	0%	40%	0%
<hr/>									
UCSB Division of Math, Life, & Physical Sciences									
Total Doctorate Degrees	80	78	77	113	92	100	99	102	114
Percent International	15%	13%	19%	12%	12%	17%	22%	19%	20%
Percent Female	39%	40%	32%	34%	33%	34%	34%	27%	33%
Percent Underrepresented	1%	4%	10%	7%	4%	4%	5%	10%	2%
Percent Minority	12%	10%	18%	17%	6%	14%	9%	16%	4%
<hr/>									
UCSB College of Letters and Science									
Total Doctorate Degrees	153	168	167	190	180	203	205	191	213
Total Degree Recipients	153	168	167	190	180	203	205	191	213
Percent International	14%	12%	16%	11%	13%	15%	16%	13%	20%
Percent Female	46%	49%	42%	38%	40%	44%	44%	38%	43%
Percent Underrepresented	8%	11%	9%	11%	8%	8%	6%	12%	7%
Percent Minority	15%	18%	16%	19%	12%	16%	13%	19%	11%
<hr/>									
UCSB Campus									
Total Doctorate Degrees	251	253	287	339	310	346	347	299	354
Total Degree Recipients	251	253	287	339	310	346	347	299	354
Percent International	26%	17%	27%	27%	29%	25%	20%	19%	24%
Percent Female	41%	44%	41%	38%	37%	40%	43%	39%	46%
Percent Underrepresented	11%	10%	10%	10%	8%	9%	8%	11%	9%
Percent Minority	19%	19%	18%	18%	15%	17%	17%	20%	16%

* Degrees conferred is based on a Summer through Spring cycle. Percent Underrepresented is the number of domestic degree recipients who indicate that their ethnicity is American Indian/Alaskan Native, African-American, or Chicano/Latino, divided by the total number of domestic degree recipients. Percent Minority is the number of domestic degree recipients who indicate that their ethnicity is American Indian/Alaskan Native, African-American, Chicano/Latino, Asian, Filipino, or East Indian/Pakistani, divided by the total number of domestic degree recipients. Percent International is the number of degree recipients with international visas divided by the total number of degree recipients.

Source: UCSB Institutional Research and Planning Statistical Extract File, UCOP Degrees Conferred File

Enrolled Graduate Student Progress

	<u>2002-03</u>	<u>2003-04</u>	<u>2004-05</u>	<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Geography - UCSB-SDSU Joint Doctoral Program									
<i>Graduation Rates for Ph.D. Students *</i>									
Cohort's Entering Year	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Cohort Size	5	5	2	7	5	4	2	3	7
After 8 years for new Doctorates	40%	40%	50%	43%	40%	75%	50%	100%	57%
<i>Median Time to Degree for Graduates (Elapsed Years) **</i>									
Doctorates	5.75	8.75	-	6.00	5.25	4.63	7.00	6.00	6.75
<i>Median Time to Candidacy (Elapsed Years) ***</i>									
Doctoral Candidates	3.20	3.20	2.80	2.90	4.40	3.80	4.20	3.90	3.90

UCSB Division of Math, Life, & Physical Sciences

<i>Graduation Rates for Ph.D. Students *</i>									
Cohort's Entering Year	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Cohort Size	104	120	112	119	115	109	126	141	151
After 8 years for new Doctorates	56%	49%	53%	63%	54%	61%	72%	63%	64%
<i>Median Time to Degree for Graduates (Elapsed Years)</i>									
Doctorates	5.88	5.75	6.00	5.75	5.63	5.75	6.00	6.00	5.75
<i>Median Time to Candidacy (Elapsed Years)</i>									
Doctoral Candidates	2.50	2.25	2.75	2.50	3.00	3.00	3.00	3.00	3.00

UCSB College of Letters and Science

<i>Graduation Rates for Ph.D. Students *</i>									
Cohort's Entering Year	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Cohort Size	246	273	254	246	257	270	308	293	309
After 8 years for new Doctorates	40%	38%	40%	51%	44%	49%	56%	53%	55%
<i>Median Time to Degree for Graduates (Elapsed Years)</i>									
Doctorates	6.50	6.50	6.75	6.00	6.00	6.00	6.50	6.25	6.25
<i>Median Time to Candidacy (Elapsed Years)</i>									
Doctoral Candidates	3.25	3.00	3.25	3.00	3.25	3.25	3.00	3.00	3.00

UCSB Campus

<i>Graduation Rates for Ph.D. Students *</i>									
Cohort's Entering Year	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Cohort Size	366	411	366	389	402	406	465	499	481
After 8 years for new Doctorates	45%	45%	42%	53%	50%	54%	60%	56%	55%
<i>Median Time to Degree for Graduates (Elapsed Years)</i>									
Doctorates	6.00	6.00	6.00	5.75	5.63	5.75	6.00	6.00	5.75
<i>Median Time to Candidacy (Elapsed Years)</i>									
Doctoral Candidates	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

* Graduation Rates are the percentage of a Fall cohort that graduated within the specified amount of elapsed time. For example, the 1996-97 graduation rates for masters degree students are the percent of the Fall cohort of 1994 who have graduated between Fall 1994 and Summer 1997.

Sources: UCSB Institutional Research & Planning Statistical Extract File, UCOP Degrees Conferred File

** Time to degree is calculated as the number of elapsed years which passed between a student's first quarter at UCSB and the quarter s/he obtained a degree. Data reported are based on those who graduated in the year specified.

Sources: UCSB Institutional Research & Planning Statistical Extract File, UCOP Degrees File

*** Time to Candidacy is calculated by measuring the elapsed time between a student's entering quarter and the quarter s/he advances to candidacy. Data reported are based on those who advanced in the year specified.

Sources: UCSB Institutional Research and Planning End of Term Statistical Extract File, SDSU Analytical Studies & Institutional Research

LIST OF DOCTORAL DISSERTATIONS
2002-03 through 2010-11

Year	Title of Dissertation	Faculty Chair
2002-03		
	Neoliberal Economic Reforms and Urban Sociospatial Change in Latin America: The Case of La Serena-Coquimbo, Chile	Ernst Griffin
	Measuring the Environmental Context of Social Vulnerability to Urban Earthquake Hazards: An Integrative Remote Sensing and GIS Approach	John Weeks
2003-04		
	Incorporating Spatial Dependence in Predictive Vegetation Models	Janet Franklin
	Modeling the Effects of Fire on Streamflow in a Chaparral Watershed	Allen Hope
	Imagined Transitions: The Geography of Reform in American Foreign Correspondence from Post-Soviet Russia	Stuart Aitken
2004-05		
2005-06		
	Effects of Spatial and Temporal Variability in Vegetation, Soil Moisture, and depth of Thaw on Modeled Evapotranspiration Estimates in Arctic Coastal Plain Ecosystems	Allen Hope
	Networks Affecting the Geographical Distribution and Position of Bison in Modern America	Stuart Aitken
	Operational Monitoring of Land-Cover Change Using Multitemporal Remote Sensing Data	Janet Franklin
	Using Spatial Updating Bias to Explore the Robustness of a Collaborative Geovisualization Model	Piotr Jankowski
	Long-term Impacts of Frequent Fire and Urban Growth on Southern California coastal shrublands: An Integrated Simulation Modeling Strategy	Janet Franklin
2006-07		
	Spatial Spatiotemporal Analysis of Dengue Virus Transmission and <i>Aedes aegypti</i> Abundance	Arthur Getis
	Geovisualizing Film: The Use of Dynamic Variables in the Analysis of Cinematic Geographies	Stuart Aitken
	Comparative Regional Income Dynamics: Clustering, Scale, and Geocomputation	Sergio Rey
	Analyzing Revitalization Outcomes in Downtown San Diego	Larry Ford
2007-08		
	Hydro-Ecological Linkages in Urbanizing Watersheds: The Role of Small Streams in Controlling Nitrogen Export	Christina Tague
	Geodemographic Modeling of Data-Poor Populations in a Security Context	John Weeks
	Exploring Normative Scenarios of Land Use Development Decisions with an Agent-Based Simulation Laboratory	Piotr Jankowski
	Developing Grid-Enabled Internet GIService Portals to Support Geospatial Cyberinfrastructure: A Pilot Study in Accessibility	Ming Tsou

2008-09		
	Peter Pan Will Not Live Here Anymore. A Multi-Approach Study of the Relation Between Neighborhood Design and the Ability to Age in Place	Larry Ford
2009-10		
	The Body Geographic: Affect, Imagination and the Relationality of Be(com)ing, or Movements through Spinozan Earth-writings	Stuart Aitken
	Characterizing Conditions of California Sage Scrub Communities in Mediterranean-type Ecosystems Using Remote Sensing	Douglas Stow
	Spatial Patterns of Urban Food Security in Accra, Ghana: A Geographic Analysis of Household Hunger in an African City	John Weeks
	Geographies of Addiction and Recovery: Drugs, Space, and Body Politics	Stuart Aitken
	Comparative Space Time Dynamics	Sergio Rey
2010-11		
	Climate and Climate change and Infectious Disease Risk in Thailand: A Spatial Study of Dengue Hemorrhagic Fever Using GIS and Remotely-sensed Imagery	Arthur Getis

PLACEMENT DATA FOR DOCTORAL STUDENTS (First Employment) 2002-03 through 2010-11			
Year	Student's Name	Organization Name	Job Title
2002-03	Tarek Rashed	University of Redlands	Assistant Professor
2002-03	Christopher Carter	California State University Long Beach	Lecturer
2003-04	Jennifer Miller	University of West Virginia	Assistant Professor
2003-04	Christine McMichael	Morehead State University	Assistant Professor
2003-04	Eric West	Southern Connecticut University	Assistant Professor
2005-06	Ryan Engstrom	George Washington University	Assistant Professor
2005-06	David Lulka	California State University San Marcos	Lecturer
2005-06	John Rogan	Clark University	Assistant Professor
2005-06	John Ryan	San Diego Mesa College	Lecturer
2005-06	Alexandra Syphard	University of Wisconsin	Post-doctoral Researcher
2006-07	Jared Aldstadt	University of Buffalo	Assistant Professor
2006-07	James Craine	California State University Northridge	Assistant Professor
2006-07	Mark Janikas	ESRI, Inc.	Product Engineer
2006-07	Brenda Kayzar	University of Minnesota	Assistant Professor
2007-08	Luc Claessens	University of Connecticut	Lecturer
2007-08	Debbie Fugate	Central Intelligence Agency	Research Demographer
2007-08	Arika Ligmann-Zielenska	Michigan State University	Assistant Professor
2007-08	Tong Zhang	Wuhan University	Post-doctoral Researcher
2008-09	Maurizio Antoninetti	San Diego State University	Assistant Professor
2009-10	Giorgio Curti	SDSU-ISYS	Post-doctoral Researcher

**PLACEMENT DATA FOR DOCTORAL STUDENTS
(First Employment)
2002-03 through 2010-11**

Year	Student's Name	Organization Name	Job Title
2009-10	Yuki Hamada	Argonne National Labs	Post-doctoral Researcher
2009-10	Anna Lopez	San Diego State University	Post-doctoral Researcher
2009-10	Christopher Moreno	HDR/E2M	Senior Ethnographer
2009-10	Xinyue Ye	Bowling Green State University	Assistant Professor
2010-11	Kristopher Kuzera	Clark University	Lecturer

Section 6

Extramural Support for JDP Students

RESEARCH FUNDING SUMMARY*		
Year	# Awarded	Funding Total
2002	13	\$1,067,353
2003	14	\$1,173,187
2004	11	\$1,330,620
2005	11	\$1,376,863
2006	9	\$961,753
2007	11	\$1,207,266
2008	11	\$2,943,884
2009	14	\$1,369,198
2010	12	\$1,682,157
2011	11	\$1,101,229
Nine Year Total	117	\$14,213,510

* Research awards from 2002 through 2011 are listed on the following pages.

**Detail of
Grants and Contracts supporting UCSB-SDSU Geography JDP students
SDSU Geography Department 2002-2011**

Year	PI/Co-PI	Title	Agency Name	Total Budget
2002				
	Aitken-Stuart	Doctoral Dissertation Research: Social Networks Affecting the Distribution of Bison in Modern America	NSF Division of Social Behavioral and Economic Research	\$6,526
	Getis, Arthur	Independent Contractor Agreement	University of California at Davis	\$18,096
	Hope, Allen	Assessing the Effects of Variations in Soil Moisture on the Surface Energy Balance	National Aeronautics and Space Administration	\$22,000
	Hope, Allen / McMichael, Christine	Modeling the Impacts of Fire and Post-fire Succession on Long-term Streamflow in California	National Aeronautics and Space Administration	\$22,000
	Hope, Allen / Tague, Christina	Fire, Land Cover and Climate Changes: Impacts on River Flows in Semiarid Shrubland Watersheds	NASA Goddard Space Flight Center	\$152,497
	Stow, Douglas	Remote Sensing-Regional Change Monitoring of Habitat Reserve Systems with Very High Resolution Remotely Sensed Data	NASA Stennis Space Center	\$199,000
	Stow, Douglas	Affiliated Research Center Program at San Diego State University	NASA Stennis Space Center	\$199,379
	Tague, Christina	Hydrogeologic Controls on Stream Temperatures and Fine Sediment Transport in Headwater Catchments in Relation to Forest Management Activities, Willamette Basin	Oregon Headwaters Research Cooperative	\$30,000
	Tague, Christina	Representing Small Catchment Nitrogen Export Efficiency	University of North Carolina-Chapel Hill	\$71,379
	Weeks, John	Doctoral Dissertation Research: Measuring the Environmental Context of Social Vulnerability to Urban Earthquake Hazards	NSF Directorate for Engineering	\$6,125
	Weeks, John / Getis, Arthur / Stow, Douglas	Applying Remote Sensing GIS to Arab Fertility	NSF Directorate for Social Behavioral and Economic Sciences	\$121,351
	Wright, Richard	Las Cailifornias Binational Conservation Area Geographic Information Systems (GIS) Analysis	International Community Foundation	\$29,000

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Wright, Richard / Gersberg, Richard / Hope, Allen / Stow, Douglas	San Diego County - Baja CA Water Quality Prediction and Monitoring Program	California State Water Resources Control Board	\$190,000
2002 Sum:				\$1,067,353
2003				
	Getis, Arthur	Independent Contractor Agreement	University of California at Davis	\$30,900
	Hope, Allen	Assessing the Effects of Variations in Soil Moisture on the Surface Energy Balance	NASA Goddard Space Flight Center	\$24,000
	Hope, Allen	Modeling the Impacts of Fire and Post-fire Succession on Long-term Streamflow Dynamics		\$18,000
	Hope, Allen / Engstrom, Ryan	Doctoral Dissertation Research: Effects of Sub-grid Spatial and Temporal Variability on Modeled Evaporation Fluxes in Arctic Coastal Plain Ecosystems	NSF Directorate for Social Behavioral and Economic Sciences	\$7,750
	Hope, Allen / Tague, Christina	Fire, Land Cover and Climate Changes: Impacts on River Flows in Semiarid Shrubland Watersheds	NASA Goddard Space Flight Center	\$156,048
	Stow, Douglas	Vernal Pool Change Detection at the Otay Mesa Vernal Pool Restoration Site and Habitat Quality Evaluation in Marron Valley	City of San Diego	\$54,855
	Stow, Douglas	A Border Security Decision Support System Driven by Remotely Sensed Data Inputs	National Aeronautics and Space Administration	\$373,786
	Stow, Douglas	Affiliated Research Center Program at San Diego State University	NASA Stennis Space Center	\$199,393
	Tague, Christina	Hydrogeologic Controls on Stream Temperatures and Fine Sediment Transport in Headwater Catchments in Relation to Forest Management Activities, Willamette Basin	Oregon Headwaters Research Cooperative	\$27,595
	Tague, Christina / Claessens, Lodevicus	Hydro-ecological Linkages in Urbanizing Watersheds: A Process-based Assessment of Land-use Change Impact on Nitrogen Export	NASA Headquarters	\$24,000

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Tague, Christina / Claessens, Lodevicus	Doctoral Dissertation Research: Hydro-ecological Linkages in Urbanizing Watersheds-A Process-based Assessment of Land-use Change Impact on Nitrogen Export	NSF Directorate for Social Behavioral and Economic Sciences	\$12,000
	Weeks, John / Getis, Arthur / Stow, Douglas	Applying Remote Sensing GIS to Arab Fertility	NSF Directorate for Social Behavioral and Economic Sciences	\$119,860
	Wright, Richard	Tijuana River Watershed Atlas Printing	New Mexico State University	\$65,000
	Wright, Richard	Vulnerability Indicators for US/Mexico Transborder Watershed	University of Utah	\$60,000
2003 Sum:				\$1,173,187
2004				
	Getis, Arthur	Entomological Determinants of Dengue Virus Transmission and Disease	Regents of the University of California	\$45,000
	Getis, Arthur	Entomological Determinants of Dengue Virus Transmission and Disease	University of California at Davis	\$42,304
	Hope, Allen	Assessing the Effects of Variations in Soil Moisture on the Surface Energy Balance	NASA Goddard Space Flight Center	\$24,000
	Hope, Allen / Tague, Christina	Fire, Land Cover and Climate Changes: Impacts on River Flows in Semiarid Shrubland Watersheds	NASA Goddard Space Flight Center	\$149,405
	Jankowski, Piotr	An Internet Platform for Support of Public Participation in Transportation Decision Making	University of Washington	\$122,854
	Stow, Douglas / Frost, Eric G	A Border Security Decision Support System Driven by Remotely Sensed Data Inputs	National Aeronautics and Space Administration	\$363,217
	Stow, Douglas	Affiliated Research Center Program at San Diego State University	NASA Stennis Space Center	\$199,740
	Tague, Christina	Hydro-ecological Linkages in Urbanizing Watersheds: A Process-based Assessment of Land-use Change Impact on Nitrogen Export	NASA Headquarters	\$24,000
	Tsou, Ming- Hsiang / Eckberg, Carl	NSF Advanced Technological Education: GIS Skills Certification Program	San Diego Mesa College	\$73,252

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Weeks, John / Brodine, Stephanie / Getis, Arthur / Stow, Douglas	Intra-urban Health Assessed by Remote-sensing and GIS	DHHS National Inst of Child Health and Human Development	\$163,250
	Wright, Richard	Development of a GIS Based Tool to Assist Stakeholders in Identifying and Managing Non-point Source (NPS) Pollution and Water Quality Problems in the Tijuana and Newport Bay Watersheds	South Coast Resource Conservation Development Council	\$123,598
2004 Sum:				\$1,330,620
2005				
	Getis, Arthur	Analysis and Modeling of Dengue Virus Transmission in Space and Time	NSF Directorate for Social Behavioral and Economic Sciences	\$4,500
	Jankowski, Piotr	A Study of Geographic Information Technology Used in Collaborative Water Resource Planning	NSF Directorate of Geosciences	\$20,030
	Jankowski, Piotr	An Internet Platform for Support of Public Participation in Transportation Decision Making	University of Washington	\$35,493
	Rey, Serge	An Exploratory Space-Time Data Analysis Toolkit for Spatial Social Science Research	NSF Directorate for Social Behavioral and Economic Sciences	\$97,318
	Stow, Douglas	A Border Security Decision Support System Driven by Remotely Sensed Data Inputs	National Aeronautics and Space Administration	\$401,414
	Tague, Christina	Hydro-ecological Linkages in Urbanizing Watersheds: A Process- based Assessment of Land-use Change Impact on Nitrogen Export	NASA Headquarters	\$24,000
	Tsou, Ming- Hsiang / Eckberg, Carl	NSF Advanced Technological Education: GIS Skills Certification Program	San Diego Mesa College	\$84,451
	Weeks, John / Brodine, Stephanie / Stow, Douglas	Intra-urban Health Assessed by Remote-sensing and GIS	DHHS National Inst of Child Health and Human Development	\$208,650
	Weeks, John / Getis, Arthur	Spatial Perspectives on Analysis for Curriculum Enhancement (SPACE)	University Consortium for Geographic Information	\$26,000

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Wright, Richard	GIS-based Decision Support System for Tecate, USA and Tecate, Mexico	Arizona State University	\$74,987
	Wright, Richard / Tsou, Ming- Hsiang / Jankowski, Piotr	San Diego Watersheds Common Ground	City of San Diego Metropolitan Wastewater	\$400,020
2005 Sum:				\$1,376,863
2006				
	Getis, Arthur	Entomological Determinants of Dengue Virus Transmission and Disease	University of California at Davis	\$43,677
	Herman, Thomas	Evaluation Coordination - South Region Service Network of First 5 Commission of San Diego	South Bay Community Services	\$55,000
	Hope, Allen / Stow, Douglas	Regional Hydrological Response of Semi-arid Mediterranean Climate Watersheds to Land-cover/Land-use Variability	National Aeronautics and Space Administration	\$164,321
	Jankowski, Piotr	An Internet Platform for Support of Public Participation in Transportation Decision Making	University of Washington	\$55,923
	Stow, Douglas	A Border Security Decision Support System Driven by Remotely Sensed Data Inputs	National Aeronautics and Space Administration	\$464,657
	Tague, Christina	Santa Maria Creek Hydrologic & Hydraulic Studies	Conservation Biology Institute	\$29,000
	Tsou, Ming- Hsiang / Eckberg, Carl	NSF Advanced Technological Education: GIS Skills Certification Program	San Diego Mesa College	\$74,013
	Tsou, Ming- Hsiang / Jankowski, Piotr	Multimedia GIS Research Project	San Diego Coast Keeper	\$12,000
	Wright, Richard	GIS-based Decision Support System for Tecate, USA and Tecate, Mexico	Arizona State University	\$63,162
2006 Sum:				\$961,753
2007				
	Christakos, George	Bayesian Maximum Entropy Integration Into SADA	University of Tennessee	\$31,009

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Frost, Eric (Geology)/Jankowski, Piotr / Skupin, Andre / Stow, Douglas / Tsou, Ming	Theoretical Analysis, Explanatory Studies and Tech Services	DOD Space and Naval Warfare Systems Command	\$377,989
	Getis, Arthur	Entomological Determinants of Dengue Virus Transmission and Disease	Regents of the University of California	\$44,987
	Getis, Arthur	Entomological Determinants of Dengue	University of Massachusetts Medical School	\$35,645
	Hope, Allen / Stow, Douglas	Regional Hydrological Response of Semi-arid Mediterranean Climate Watersheds to Land-cover/Land-use Variability	National Aeronautics and Space Administration	\$193,369
	Jankowski, Piotr	Agent-based Exploratory Modeling of Sustainable Land Use Patterns Generated with Multiobjective Spatial Optimization	National Science Foundation	\$6,390
	Jankowski, Piotr	An Internet Platform for Support of Public Participation in Transportation Decision Making	University of Washington	\$85,144
	Rey, Serge	Doctoral Dissertation Research: Comparative Regional Income Dynamics: Clustering, Scale, and Geocomputation	National Science Foundation	\$4,200
	Stow, Douglas / Jennex, Murray	A Border Security Decision Support System Driven by Remotely Sensed Data Inputs	National Aeronautics and Space Administration	\$333,738
	Stow, Douglas	Digital Images of U.S.-Mexico Border	DOD Army Corps of Engineers	\$20,000
	Tsou, Ming- Hsiang / Eckberg, Carl	NSF Advanced Technological Education: GIS Skills Certification Program	San Diego Mesa College	\$74,795
2007 Sum:				\$1,207,266
2008				
	Aitken Stuart / Herman, Thomas	Mapping North American Youth Cultures: Local Settings of Global Lives	Foreign Affairs and International Trade Canada	\$13,861
	An, Li	NSF PIRE Collaborative Research and Training in Social Context, Population Processes, and Environmental Change	University of Michigan	\$23,248

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Biggs, Trent	Particle Size and Accumulation Rates of Sediment Within Fluvial and Feeder Canyon Depositional Environments of the Tijuana Estuary Reserve	DOC National Oceanic and Atmospheric Administration	\$20,000
	Christakos, George	Spatiotemporal Analysis of Air Pollution and Mortality in California Based on the American Cancer Society Cohort	University of California at Berkeley	\$58,591
	Frost, Eric (Geology)/Jankowski, Piotr / Skupin, Andre / Stow, Douglas / Tsou, Ming	Theoretical Analysis, Explanatory Studies and Tech Services	DOD Space and Naval Warfare Systems Command	\$1,875,456
	Getis, Arthur	Entomological Determinants of Dengue	University of Massachusetts Worcester	\$7,620
	Herman, Thomas	School Climate Outcomes Tracking for Sweetwater Union High School District	Sweetwater Union High School District	\$18,000
	Hope, Allen / Stow, Douglas	Regional Hydrological Response of Semi-arid Mediterranean Climate Watersheds to Land-cover/Land-use Variability	National Aeronautics and Space Administration	\$199,790
	Marcelli, Pascale	Disparities in Access to Parks and Recreation Resources in Southern California	University of Southern California	\$24,120
	Stow, Douglas / Jankowski, Piotr	Situational Awareness and Decision Support for Controlling Cross-border Smuggling	University of Arizona	\$65,055
	Weeks, John / Getis, Arthur / Stow, Douglas	Health, Poverty and Place: Modeling Inequalities in Accra Using RS and GIS	DHHS National Inst of Child Health and Human Development	\$638,143
2008 Sum:				\$2,943,884
2009				
	An, Li	Documenting Impacts of Illegal Mining on the Guizhou Golden Monkey in China	Margot Marsh Biodiversity Foundation	\$12,000
	An, Li	NSF PIRE Collaborative Research and Training in Social Context, Population Processes, and Environmental Change	University of Michigan	\$88,662
	Biggs, Trent	Conservation of High Altitude Wetlands, Impacts of Climate Change on the Hydrology of Himalayan Wetlands Study	World Wildlife Fund	\$37,418

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Christakos, George	Spatiotemporal Analysis of Air Pollution and Mortality in California Based on the American Cancer Society Cohort	University of California at Berkeley	\$70,989
	Costello, Molly M	Ramona Grasslands/Santa Maria Creek Restoration Project: Part II	San Diego County Parks and Recreation	\$7,846
	Farley, Kathleen	Collaborative Research: The Effects of Land-use Change on the Production of Ecosystem Services on Paramo Grasslands	NSF Directorate for Social Behavioral and Economic Sciences	\$55,858
	Herman, Thomas	San Diego Healthy Homes Evaluation	City of San Diego	\$9,145
	Rey, Serge	Doctoral Dissertation Research: Comparative Space - Time Dynamics	NSF Directorate for Social Behavioral and Economic Sciences	\$1,500
	Stow, Douglas / Jankowski, Piotr	Situational Awareness and Decision Support for Controlling Cross-border Smuggling	University of Arizona	\$65,055
	Tsou, Ming-Hsiang	Splash Lab Geographic Information System Station Curriculum Development	San Diego County Office of Education	\$3,784
	Tsou, Ming-Hsiang	National Geospatial Technology Center Project	Texas A & M University Research Foundation	\$45,000
	Tsou, Ming-Hsiang / Farley, Kathleen	Baja-Eco-Info Mapping Tool: Mapping Conservation and Threats for the Gulf of California	International Community Foundation	\$11,500
	Tsou, Ming-Hsiang / Gupta, Dipak / Gawron, Jean Mark / Spitzberg, Brian	CDI-Type II: Mapping Cyberspace to Realspace: Visualizing and Understanding the Spatiotemporal Dynamics of Global Diffusion of Ideas and the Semantic Web	NSF Dir for Computer and Information Science and Engineering	\$315,299
	Weeks, John / Getis, Arthur / Stow, Douglas	Health, Poverty and Place: Modeling Inequalities in Accra Using RS and GIS	DHHS National Inst of Child Health and Human Development	\$645,142
2009 Sum:				\$1,369,198
2010				
	An, Li	NSF PIRE Collaborative Research and Training in Social Context, Population Processes, and Environmental Change	University of Michigan	\$188,753

Year	PI/Co-PI	Title	Agency Name	Total Budget
	An, Li	Does Ecotourism Help Conserving the Nature? A Case Study of the Fanjingshan National Nature Reserve, China	Zoological Society of San Diego	\$1,650
	Christakos, George	Spatiotemporal Analysis of Air Pollution and Mortality in California Based on the American Cancer Society Cohort	University of California at Berkeley	\$47,420
	Farley, Kathleen	Collaborative Research: The Effects of Land-use Change on the Production of Ecosystem Services on Paramo Grasslands	NSF Directorate for Social Behavioral and Economic Sciences	\$62,581
	Herman, Thomas	Evaluation of High School After School Programs for Sweetwater Union High School District	Sweetwater Union High School District	\$13,125
	Stow, Douglas	Remote Sensing Analysis of Products Capability for Advisory Circular 150/5300-17B	Federal Aviation Administration	\$82,689
	Stow, Douglas	ARRA: Estimation of Regional Fuel Development and Condition in Wild Lands of Southern California	USDA Forest Service	\$374,995
	Stow, Douglas / Jennex, Murray	Situational Awareness and Decision Support for Controlling Cross-border Smuggling	University of Arizona	\$72,331
	Tsou, Ming-Hsiang	National Geospatial Technology Center Project	Texas A & M University Research Foundation	\$45,000
	Tsou, Ming-Hsiang	Bizarre Map Challenge (BMC): A National Map Design Competition		\$31,529
	Weeks, John	ARRA: Health, Poverty and Place: Modeling Inequalities in Accra Using RS and GIS: Administrative Supplement	DHHS National Inst of Child Health and Human Development	\$72,860
	Weeks, John / Getis, Arthur / Stow, Douglas	Health, Poverty and Place: Modeling Inequalities in Accra Using RS and GIS	DHHS National Inst of Child Health and Human Development	\$689,224
2010 Sum:				\$1,682,157
2011				
	Farley, Kathleen	Collaborative Research: The Effects of Land-use Change on the Production of Ecosystem Services on Paramo Grasslands	NSF Directorate for Social Behavioral and Economic Sciences	\$36,512
	Herman, Thomas	Little Italy Community History Project	Little Italy Association	\$40,000
	Herman, Thomas	Evaluation of High School After School Programs for Sweetwater Union High School District	Sweetwater Union High School District	\$7,500

Year	PI/Co-PI	Title	Agency Name	Total Budget
	Herman, Thomas / Mattingly, Doreen	South Region Evaluation: First 5 - Healthy Development Services for Children	South Bay Community Services	\$86,000
	Herman, Thomas / Mattingly, Doreen	South Region Evaluation: First 5 - Healthy Development Services for Children		\$10,000
	Skupin, Andre	Geographic Information Science and Technology BoK2: Foundational Research	City University of New York - Hunter College	\$99,260
	Stow, Douglas	ARRA: Estimation of Regional Fuel Development and Condition in Wild Lands of Southern California	USDA Forest Service	\$84,385
	Tsou, Ming-Hsiang	Connectory GIS Improvement	East County Economic Development Council	\$15,000
	Tsou, Ming-Hsiang	REU Supplement: Mapping Cyberspace to Realspace: Visualizing and Understanding the Spatiotemporal Dynamics of Global Diffusion of Ideas through the Semantic Web	NSF Dir for Computer and Information Science and Engineering	\$23,125
	Tsou, Ming-Hsiang	National Geospatial Technology Center Project	Texas A & M University Research Foundation	\$45,000
	Weeks, John / Getis, Arthur / Stow, Douglas	Health, Poverty and Place: Modeling Inequalities in Accra Using RS and GIS	DHHS National Inst of Child Health and Human Development	\$654,447
2011 Sum:				\$1,101,229

Section 7

Student Surveys

Academic Program Review Student Survey

Introduction

The UCSB Office of Budget and Planning surveyed the program's currently enrolled graduate students in July-August 2012. This section of the notebook contains:

1. A comparison of the percentage of satisfied students in the program with satisfaction levels for UCSB graduate students as a whole (comparable data from SDSU not available)
2. Quantitative results
3. Summaries of responses to open-ended questions

How to read the Comparative Summaries: The summaries compare, for each question, the proportion of satisfied students in this program with the proportion of satisfied graduate students for UCSB as a whole. For those questions with two entries ("at UCSB" and "at SDSU"), students were asked to rate their satisfaction based on their experience at each of the two campuses. The column entitled "Geog JDP" shows the program's percentage of satisfied students, which is the percentage of students who marked "1" or "2" (indicating a high degree of satisfaction), on each question. The next column ("avg.") shows the average percentage of satisfied graduate students for all UCSB departments, which was calculated using the results of the most recent Program Review surveys in all departments. The lowest satisfaction rating received by any department is shown in the next column under "min." The highest satisfaction rating received by any department is given under "max." The number of departments whose results were used in calculating the average, is given under "count."

How to interpret survey data: *By themselves, survey data are not sufficient to support conclusions about program quality.* When survey results suggest issues or concerns, readers should seek additional evidence before drawing conclusions. In addition to reviewing other notebook data, the external review team will have the opportunity to probe student perceptions when it meets with students during the site visit. Reviewers may also request additional data on specific topics.

When interpreting the survey data, please bear in mind the following:

- Because of small sample sizes in some departments, confidence intervals around the mean responses may be large. The point at which there are statistically significant differences between department results and campus norms will vary with response rates and sample sizes. As a very general rule, we suggest that:
 - If the percentage of satisfied students on any item differs by about 10% from the percentage at the campus level, there *may be* something meaningful occurring and further exploration is warranted.
 - If the percentage of satisfied students on any item differs by about 20% or more from the percentage at the campus level, something meaningful *is likely* occurring.
 - If you would like to have the confidence intervals for specific items, please contact the director for this program review, Maria Mahoney, at x.7754 or maria.mahoney@bap.ucsb.edu.
- The percent of students indicating satisfied or highly satisfied is often quite sensitive to the opinion of a few students. For example, in a sample of 35 students, 5 students choosing a response of "3" instead of "2" would cause the department average to fall by a full 14 percent. To get the most information from the survey, we recommend examining the entire distribution. The distribution will show whether student opinions are clustered in a few categories, indicating a consensus of opinion, or whether they show a bimodal distribution, where one group of students views the department favorably and another group responds negatively.
- Surveys are snapshots of the past. It is possible for an isolated incident (positive or negative) in the year of the survey to influence the perceptions of enough students to significantly alter the mean responses.

**Comparative Summary of Graduate Student Responses
to Program Review Surveys:
Percent (%) Indicating Highly or Very Satisfied**

		Geog JDP	All UCSB Departments			
		2011	avg	min	max	count
Survey Responses:		26	51	4	180	44
Response Rate:		96%	80%	58%	100%	43
Instruction						
Graduate instruction by faculty within the department	at SDSU at UCSB	85% 68%	73%	41%	100%	44
Availability of instructors to discuss graduate coursework outside of class	at SDSU at UCSB	89% 64%	78%	52%	100%	41
Faculty assistance in preparing you to meet your responsibilities as a Teaching Assistant	at SDSU at UCSB	58% 18% *	50%	17%	100%	43
Appropriateness of T.A. workload	at SDSU at UCSB	68% 27% *	51%	20%	83%	43
Research/Creative Activities						
Faculty expertise in your area of interest	at SDSU at UCSB	89% 64%	77%	40%	100%	44
Availability of opportunities for becoming involved in creative activities (e.g., research).	at SDSU at UCSB	64% 27%	59%	24%	89%	44
Opportunities to present research at departmentally sponsored or supported events (e.g. brown bags)	at SDSU at UCSB	58% 18% *	58%	8%	100%	41
Advising						
Assistance in planning your course of study	at SDSU at UCSB	77% 41%	58%	20%	83%	43
Academic advice offered by faculty advisors	at SDSU at UCSB	89% 64%	65%	30%	91%	44
Communication of dept. & university rules & policies for grad. students	at SDSU at UCSB	54% 36%	51%	15%	75%	44
Dept. assistance in career advising and job placement	at SDSU at UCSB	39% 9% *	30%	9%	83%	44

* = 25% or more of respondents checked No Opinion. Readers should review the distribution of responses to this question before drawing conclusions.

**Comparative Summary of Graduate Student Responses
to Program Review Surveys:
Percent (%) Indicating Highly or Very Satisfied**

		Geog JDP	All UCSB Departments			
		2011	avg	min	max	count
Survey Responses:		26	51	4	180	44
Response Rate:		96%	80%	58%	100%	43
Curriculum						
Overall program of study leading to your degree		92%	69%	33%	97%	44
Content of courses offered by the department	at SDSU at UCSB	73% 64%	64%	23%	100%	44
Diversity of courses offered by dept.	at SDSU at UCSB	54% 36%	49%	10%	77%	44
Availability of courses offered by the department	at SDSU at UCSB	54% 32%	57%	13%	82%	44
Dept. requirements for earning the degree you are pursuing		92%	68%	44%	94%	44
Career preparation		81%	43%	10%	81%	43
Facilities and Equipment						
Access to office space	at SDSU at UCSB	77% 77%	58%	15%	91%	40
Access to space for creative activities (labs, studios)	at SDSU at UCSB	65% 64%	52%	14%	88%	41
Equipment & facilities that support instructional activities	at SDSU at UCSB	50% 59%	52%	10%	100%	44
Equipment & facilities that support creative activities	at SDSU at UCSB	42% 64%	48%	13%	100%	44
Financial Assistance						
Dept's procedure for allocation of TAships & other forms of financial assistance	at SDSU at UCSB	89% 5%	60%	5%	100%	44
TA or RAship availability	at SDSU at UCSB	85% 9%	60%	9%	100%	44
Communication department provides concerning decisions about financial assistance	at SDSU at UCSB	65% 14%	47%	14%	82%	44
Equity of the distribution of financial support within your program	at SDSU at UCSB	73% 9%	46%	9%	83%	41

* = 25% or more of respondents checked No Opinion. Readers should review the distribution of responses to this question before drawing conclusions.

**Comparative Summary of Graduate Student Responses
to Program Review Surveys:
Percent (%) Indicating Highly or Very Satisfied**

		Geog JDP	All UCSB Departments			
		2011	avg	min	max	count
Survey Responses:		26	51	4	180	44
Response Rate:		96%	80%	58%	100%	43
Departmental Academic Climate						
Dept's consistency in application of rules and policies	at SDSU	65%	58%	33%	100%	44
	at UCSB	46% *				
Dept. as an intellectually stimulating and exciting place for learning	at SDSU	81%	74%	37%	100%	44
	at UCSB	64%				
Attitude of faculty toward teaching	at SDSU	81%	69%	20%	100%	44
	at UCSB	64%				
Attitude of faculty toward mentoring	at SDSU	85%	66%	24%	100%	44
	at UCSB	50%				
Attitude of staff toward students	at SDSU	62%	79%	40%	100%	44
	at UCSB	86%				
Morale of grad students in dept. % Excellent and Good		88%	72%	24%	92%	44
Academic quality w/in Dept.: % Excellent and Good						
Undergraduates	at SDSU	42%	42%	0%	100%	41
	at UCSB	59% *				
Graduate Students	at SDSU	96%	90%	52%	100%	44
	at UCSB	86%				
Lecturers	at SDSU	73%	68%	41%	93%	44
	at UCSB	41% *				
Faculty	at SDSU	100%	93%	59%	100%	44
	at UCSB	96%				
Importance in selecting this graduate program % Extremely & Very important						
Reputation of UCSB's faculty		69%	77%	42%	100%	42
Reputation of SDSU's faculty		88%				
UCSB's general reputation		58%	64%	27%	88%	42
SDSU's general reputation		54%				
Financial considerations		73%	76%	36%	100%	42
Geographic considerations		77%	65%	30%	100%	42
Family considerations		55%	37%	10%	71%	42
Other		67%	38%	11%	100%	42
Graduate program accurately described in the UCSB/SDSU catalogs & other publications (% yes)		58%	64%	32%	100%	42
Facilities or resources important for your work that are unavailable or inadequate in your department (% yes)	at SDSU	46%	35%	0%	80%	42
	at UCSB	23%				

* = 25% or more of respondents checked No Opinion or Don't Know. Readers should review the distribution of responses to this question before drawing conclusions.

**UCSB-SDSU Geography Joint Doctoral Program
Program Review Graduate Student Survey**

Total Surveys Mailed	29
Valid Addresses	28
Total Surveys Received	26
Overall Response Rate	93%

1. Background and Academic Experience at SDSU/UCSB:

a1) How many semesters have you completed at SDSU??

1-2 semesters	8 (31%)
3-4 semesters	7 (27%)
5-6 semesters	4 (15%)
7-8 semesters	2 (8%)
9-10 semesters	1 (4%)
11 or more	4 (15%)
Total	26 (100%)

a2) How many quarters have you completed at UCSB??

0 qtrs	4 (15%)
3 qtrs	22 (85%)
Total	26 (100%)

b1) Did you complete your bachelors at UCSB or SDSU??

Yes	1 (4%)
No	25 (96%)
Total	26 (100%)

b2) Did you complete your masters at UCSB or SDSU??

Yes	9 (35%)
No	17 (65%)
Total	26 (100%)

c) What is your gender?

Female	9 (35%)
Male	17 (65%)
Total	26 (100%)

d) International student?

Yes	2 (8%)
No	23 (92%)
Total	25 (100%)

e) While enrolled in this program have you received a stipend as a SDSU Teaching Associate?

Yes	26 (100%)
No	0 (0%)
Total	26 (100%)

f) Have you had any other employment or source of financial support (e.g., employment on grants and contracts, or travel support) from either SDSU or UCSB

1) during the academic year?

Yes from SDSU only	15 (58%)
Yes from SDSU & UCSB	4 (15%)
No	7 (27%)
Total	26 (100%)

2) during the summer?

Yes from SDSU only	13 (50%)
Yes from SDSU & UCSB	3 (12%)
No	10 (38%)
Total	26 (100%)

g) Indicate the number of hours per week, at SDSU, worked as a:

	Teaching Assistant	Lecturer	Research Assistant	Other paid Job
0 hrs	3 (10%)	13 (50%)	8 (31%)	24 (92%)
1-5 hrs	5 (17%)	2 (8%)	2 (8%)	0 (0%)
6-10 hrs	6 (21%)	4 (15%)	2 (8%)	1 (4%)
11-15 hrs	5 (17%)	1 (4%)	2 (8%)	1 (4%)
16-20 hrs	5 (17%)	2 (8%)	7 (27%)	0 (0%)
21-25 hrs	3 (10%)	3 (12%)	2 (8%)	0 (0%)
26-30 hrs	2 (7%)	0 (0%)	1 (4%)	0 (0%)
31+ hrs	0 (0%)	1 (4%)	2 (8%)	0 (0%)
No Answer	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total	29 (100%)	26 (100%)	26 (100%)	26 (100%)

g) Indicate the number of hours per week, at UCSB, worked as a:

	Teaching Assistant	Lecturer	Research Assistant	Other paid Job
0 hrs	19 (66%)	23 (88%)	9 (35%)	21 (81%)
1-5 hrs	1 (3%)	0 (0%)	2 (8%)	0 (0%)
6-10 hrs	1 (3%)	0 (0%)	2 (8%)	2 (8%)
11-15 hrs	0 (0%)	0 (0%)	2 (8%)	0 (0%)
16-20 hrs	2 (7%)	0 (0%)	5 (19%)	0 (0%)
21-25 hrs	0 (0%)	0 (0%)	0 (0%)	0 (0%)
26-30 hrs	0 (0%)	0 (0%)	0 (0%)	0 (0%)
31+ hrs	0 (0%)	0 (0%)	2 (8%)	0 (0%)
No Answer	3 (10%)	3 (12%)	4 (15%)	3 (12%)
Total	26 (90%)	26 (100%)	26 (100%)	26 (100%)

h) Upon completion of your degree, what are your objectives for employment? (mark all that apply)*

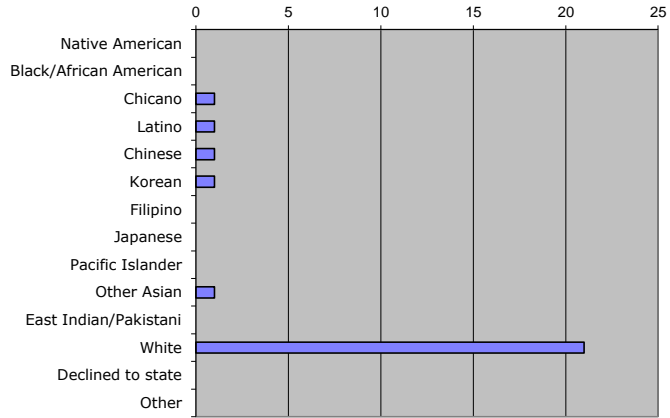
Academic Teaching	19	(73%)
Academic Research	19	(73%)
Private Industry Research	6	(23%)
Private Industry Other	3	(12%)
Other Professional (Attorney, Doctor, Artist etc.)	1	(4%)
Government or Public Service	11	(42%)
Not Sure	2	(8%)
Other (please specify): Applied Research Informal Science	3	(12%)
Education/Museums, Consulting Work, Education at any level		

Total respondents 26 * note: multiple interests may be checked for a single respondent

i) Racial/ethnic heritage*:

Native American	0	(0%)
Black/African American	0	(0%)
Chicano	1	(4%)
Latino	1	(4%)
Chinese	1	(4%)
Korean	1	(4%)
Filipino	0	(0%)
Japanese	0	(0%)
Pacific Islander	0	(0%)
Other Asian	1	(4%)
East Indian/Pakistani	0	(0%)
White	21	(81%)
Declined to state	0	(0%)
Other	0	(0%)

Total respondents 26 * note: multiple ethnicities may be checked for a single respondent



Please indicate how satisfied you are, in general, with the following aspects of your program:

	Highly Satisfied 1	2	Moderately Satisfied 3	4	Not at all Satisfied 5	No Opinion 6	Total
1. TEACHING EXPERIENCE							
Your lecturing or teaching assistant experience as a doctoral student	23% (6)	38% (10)	23% (6)	8% (2)	0% (0)	8% (2)	26
The preparation and mentoring you received for teaching as a doctoral student	15% (4)	19% (5)	42% (11)	8% (2)	12% (3)	4% (1)	26
2. INSTRUCTION							
Graduate instruction by faculty within the dept.							
at SDSU	58% (15)	27% (7)	12% (3)	4% (1)	0% (0)	0% (0)	26
at UCSB	36% (8)	32% (7)	14% (3)	9% (2)	5% (1)	5% (1)	22
Graduate instruction by faculty in departments other than Geography							
at SDSU	23% (6)	12% (3)	8% (2)	4% (1)	4% (1)	50% (13)	26
at UCSB	32% (7)	23% (5)	9% (2)	0% (0)	0% (0)	36% (8)	22
Availability of instructors to discuss graduate coursework outside of class							
at SDSU	69% (18)	19% (5)	8% (2)	0% (0)	0% (0)	4% (1)	26
at UCSB	32% (7)	32% (7)	14% (3)	9% (2)	5% (1)	9% (2)	22
Faculty assistance in preparing you to meet your responsibilities as a Teaching Assistant							
at SDSU	19% (5)	38% (10)	31% (8)	4% (1)	8% (2)	0% (0)	26
at UCSB	5% (1)	14% (3)	14% (3)	5% (1)	5% (1)	59% (13)	22
Appropriateness of Teaching Assistant workload							
at SDSU	16% (4)	52% (13)	12% (3)	8% (2)	8% (2)	4% (1)	25
at UCSB	5% (1)	23% (5)	14% (3)	0% (0)	5% (1)	55% (12)	22
3. RESEARCH OR CREATIVE ACTIVITIES							
Faculty expertise in your area of interest							
at SDSU	65% (17)	23% (6)	12% (3)	0% (0)	0% (0)	0% (0)	26
at UCSB	41% (9)	23% (5)	9% (2)	23% (5)	5% (1)	0% (0)	22
Availability of opportunities for becoming involved in creative activities (e.g., research, performance, clinical work, laboratory or library research)							
at SDSU	52% (13)	12% (3)	32% (8)	4% (1)	0% (0)	0% (0)	25
at UCSB	5% (1)	23% (5)	32% (7)	18% (4)	9% (2)	14% (3)	22
Opportunities to present research at departmentally sponsored events (brown bags, colloquia, etc)							
at SDSU	27% (7)	31% (8)	19% (5)	23% (6)	0% (0)	0% (0)	26
at UCSB	5% (0)	23% (4)	14% (5)	0% (3)	5% (2)	55% (8)	22

	Highly Satisfied 1	2	Moderately Satisfied 3	4	Not at all Satisfied 5	No Opinion 6	Total
4. ADVISING							
Assistance in planning your course of study							
at SDSU	38% (10)	38% (10)	19% (5)	4% (1)	0% (0)	0% (0)	26
at UCSB	14% (3)	27% (6)	32% (7)	9% (2)	9% (2)	9% (2)	22
Academic advice offered by faculty advisors							
at SDSU	54% (14)	35% (9)	8% (2)	0% (0)	4% (1)	0% (0)	26
at UCSB	23% (5)	41% (9)	9% (2)	18% (4)	9% (2)	0% (0)	22
Communication of department and university rules and policies for graduate students							
at SDSU	19% (5)	35% (9)	19% (5)	12% (3)	15% (4)	0% (0)	26
at UCSB	5% (1)	32% (7)	18% (4)	18% (4)	14% (3)	14% (3)	22
Department assistance in career advising and job placement							
at SDSU	15% (4)	23% (6)	15% (4)	19% (5)	4% (1)	23% (6)	26
at UCSB	0% (0)	9% (2)	9% (2)	27% (6)	14% (3)	41% (9)	22
Availability of faculty advisors							
at SDSU	73% (19)	19% (5)	8% (2)	0% (0)	0% (0)	0% (0)	26
at UCSB	27% (6)	27% (6)	23% (5)	9% (2)	9% (2)	5% (1)	22
Has there been a faculty member other than your faculty advisor(s), you consider a significant mentor?							
Yes	69% (18)						
No	31% (8)						
Total	100% (26)						
If yes, Is this faculty member in the Geography department at SDSU or UCSB?							
Yes, in the Geography department at SDSU			50% (9)				
Yes, in the Geography department at UCSB			28% (5)				
No, in another department at UCSB			22% (4)				
Total			100% (18)				

	Highly Satisfied 1	2	Moderately Satisfied 3	4	Not at all Satisfied 5	No Opinion 6	Total
5. CURRICULUM							
The overall program of study leading to your degree	38% (10)	54% (14)	4% (1)	4% (1)	0% (0)	0% (0)	26
The content of courses offered by the dept.							
at SDSU	31% (8)	42% (11)	23% (6)	4% (1)	0% (0)	0% (0)	26
at UCSB	27% (6)	36% (8)	9% (2)	14% (3)	9% (2)	5% (1)	22
The diversity of courses offered by the dept.							
at SDSU	23% (6)	31% (8)	35% (9)	4% (1)	4% (1)	4% (1)	26
at UCSB	14% (3)	23% (5)	23% (5)	9% (2)	27% (6)	5% (1)	22
The availability of courses offered by the dept.							
at SDSU	23% (6)	31% (8)	27% (7)	4% (1)	4% (1)	12% (3)	26
at UCSB	5% (1)	27% (6)	14% (3)	27% (6)	9% (2)	18% (4)	22
The coordination between courses within the dept.	15% (7)	30% (14)	26% (12)	15% (7)	7% (3)	7% (3)	46
Department requirements for earning the degree you are pursuing	46% (12)	46% (12)	8% (2)	0% (0)	0% (0)	0% (0)	26
Career preparation	27% (7)	54% (14)	19% (5)	0% (0)	0% (0)	0% (0)	26

	Highly Satisfied 1	2	Moderately Satisfied 3	4	Not at all Satisfied 5	No Opinion 6	Total
6. FACILITIES AND EQUIPMENT							
Access to office space							
at SDSU	31% (8)	46% (12)	23% (6)	0% (0)	0% (0)	0% (0)	26
at UCSB	32% (7)	45% (10)	18% (4)	5% (1)	0% (0)	0% (0)	22
Access to space for creative activities (labs, studios, etc.)							
at SDSU	35% (9)	31% (8)	15% (4)	15% (4)	4% (1)	0% (0)	26
at UCSB	27% (6)	36% (8)	14% (3)	9% (2)	0% (0)	14% (3)	22
Equipment and facilities which support instruction							
at SDSU	19% (5)	31% (8)	31% (8)	12% (3)	8% (2)	0% (0)	26
at UCSB	36% (8)	23% (5)	14% (3)	5% (1)	0% (0)	23% (5)	22
Equipment and facilities which support creative activities							
at SDSU	19% (5)	23% (6)	38% (10)	8% (2)	8% (2)	4% (1)	26
at UCSB	23% (5)	41% (9)	9% (2)	9% (2)	5% (1)	14% (3)	22
7. FINANCIAL ASSISTANCE							
Travel support to attend professional conferences							
at SDSU	15% (4)	35% (9)	15% (4)	23% (6)	8% (2)	4% (1)	26
at UCSB	0% (0)	18% (4)	18% (4)	14% (3)	9% (2)	41% (9)	22
Availability of grants, awards, and scholarships in support of research or creative activities							
at SDSU	15% (4)	42% (11)	15% (4)	19% (5)	4% (1)	4% (1)	26
at UCSB	0% (0)	14% (3)	27% (6)	9% (2)	9% (2)	41% (9)	22
The department's procedures for allocation of TAships and other forms of financial assistance							
at SDSU	58% (15)	31% (8)	4% (1)	0% (0)	4% (1)	4% (1)	26
at UCSB	0% (0)	5% (1)	5% (1)	5% (1)	5% (1)	82% (18)	22
TA or research assistantship availability							
at SDSU	50% (13)	35% (9)	8% (2)	4% (1)	0% (0)	4% (1)	26
at UCSB	0% (0)	9% (2)	5% (1)	5% (1)	5% (1)	77% (17)	22
Communication from the department concerning decisions about financial assistance							
at SDSU	35% (9)	31% (8)	12% (3)	12% (3)	4% (1)	8% (2)	26
at UCSB	5% (1)	9% (2)	5% (1)	5% (1)	5% (1)	73% (16)	22
Equity of the distribution of financial support within your program							
at SDSU	54% (14)	19% (5)	12% (3)	8% (2)	4% (1)	4% (1)	26
at UCSB	0% (0)	9% (2)	9% (2)	0% (0)	0% (0)	82% (18)	22

	Highly Satisfied 1	2	Moderately Satisfied 3	4	Not at all Satisfied 5	No Opinion 6	Total
8. ACADEMIC CLIMATE							
The department's consistency in application of rules and policies							
at SDSU	31% (8)	35% (9)	15% (4)	12% (3)	4% (1)	4% (1)	26
at UCSB	27% (6)	18% (4)	23% (5)	5% (1)	0% (0)	27% (6)	22
The department as an intellectually stimulating and exciting place for learning							
at SDSU	38% (10)	42% (11)	19% (5)	0% (0)	0% (0)	0% (0)	26
at UCSB	36% (8)	27% (6)	5% (1)	27% (6)	5% (1)	0% (0)	22
Attitude of faculty toward teaching							
at SDSU	42% (11)	38% (10)	4% (1)	15% (4)	0% (0)	0% (0)	26
at UCSB	27% (6)	36% (8)	9% (2)	5% (1)	0% (0)	23% (5)	22
Attitude of faculty toward mentoring							
at SDSU	62% (16)	23% (6)	15% (4)	0% (0)	0% (0)	0% (0)	26
at UCSB	14% (3)	36% (8)	27% (6)	18% (4)	5% (1)	0% (0)	22
Attitude of staff toward students							
at SDSU	35% (9)	27% (7)	23% (6)	8% (2)	8% (2)	0% (0)	26
at UCSB	55% (12)	32% (7)	14% (3)	0% (0)	0% (0)	0% (0)	22

9. Overall, the morale of graduate students in the UCSB-SDSU Joint Doctoral Program in Geography is:							
	Excellent	Good	Fair	Poor	Don't Know	Total	
	31% (8)	54% (14)	12% (3)	0% (0)	4% (1)	26	

10. How would you characterize the general academic quality of the following groups within the Geography department?							
	Excellent	Good	Fair	Poor	Don't Know	Total	
Undergraduates							
at SDSU	12% (3)	31% (8)	46% (12)	8% (2)	4% (1)	26	
at UCSB	23% (5)	36% (8)	0% (0)	0% (0)	41% (9)	22	
Graduate students							
at SDSU	62% (16)	35% (9)	4% (1)	0% (0)	0% (0)	26	
at UCSB	55% (12)	32% (7)	14% (3)	0% (0)	0% (0)	22	
Lecturers							
at SDSU	35% (9)	38% (10)	0% (0)	0% (0)	27% (7)	26	
at UCSB	18% (4)	23% (5)	0% (0)	0% (0)	59% (13)	22	
Faculty							
at SDSU	77% (20)	23% (6)	0% (0)	0% (0)	0% (0)	26	
at UCSB	64% (14)	32% (7)	5% (1)	0% (0)	0% (0)	22	

11. How important was each of the following factors in leading you to select your particular graduate program?

	Extremely Important 1	2	Moderately Important 3	4	Not at all Important 5	Total
Reputation of the program's faculty at SDSU	50% (13)	38% (10)	12% (3)	0% (0)	0% (0)	26
Reputation of the program's faculty at UCSB	23% (6)	46% (12)	23% (6)	0% (0)	8% (2)	26
SDSU's reputation in general	8% (2)	46% (12)	31% (8)	8% (2)	8% (2)	26
UCSB's reputation in general	8% (2)	50% (13)	27% (7)	8% (2)	8% (2)	26
Financial considerations	38% (10)	35% (9)	23% (6)	4% (1)	0% (0)	26
Geographic considerations	46% (12)	31% (8)	12% (3)	8% (2)	4% (1)	26
Family considerations	38% (9)	17% (4)	8% (2)	4% (1)	33% (8)	24
Other (describe): <i>[see narratives]</i>	67% (8)	0% (0)	17% (2)	0% (0)	17% (2)	12

12. How well do you think the UCSB-SDSU Joint Doctoral Program in Geography will have prepared you for employment in...

	Very well 1	More than adequately 2	Adequately 3	Less than adequately 4	Poorly 5	No Opinion 6	Total
University/college teaching	35% (9)	46% (12)	19% (5)	0% (0)	0% (0)	0% (0)	26
Other teaching	15% (4)	46% (12)	19% (5)	12% (3)	0% (0)	8% (2)	26
Research	46% (12)	35% (9)	19% (5)	0% (0)	0% (0)	0% (0)	26
Private industry	8% (2)	38% (10)	12% (3)	19% (5)	4% (1)	19% (5)	26
Government	12% (3)	35% (9)	19% (5)	19% (5)	0% (0)	15% (4)	26

13. Is your graduate program accurately described in the UCSB/SDSU catalogs and in other university or departmental publications?

Yes	58%	(15)	If no, what is inaccurate?	<i>See narratives.</i>
No	8%	(2)		
No Opinion	35%	(9)		
Total	100%	(26)		

14. Are there facilities or resources important for your work that are unavailable or inadequate in your department?

At SDSU			At UCSB			If so, please explain:	<i>See narratives.</i>
Yes	46%	(12)	Yes	23%	(5)		
No	46%	(12)	No	64%	(14)		
No Opinion	8%	(2)	No Opinion	14%	(3)		
Total	100%	(26)	Total	100%	(22)		

15. What is your assessment of the climate for graduate study that the UCSB-SDSU Joint Doctoral Program in Geography fosters:

(a) in general, (b) for women, (c) for historically underrepresented students, and (d) for international students?
See narratives.

16a. What do you think are the primary strengths of the UCSB-SDSU Joint Doctoral Program in Geography?

See narratives.

16b. What do you think are the primary weaknesses of the UCSB-SDSU Joint Doctoral Program in Geography?

See narratives.

16c. What is the most important improvement the UCSB-SDSU Joint Doctoral Program in Geography could make?

See narratives.

17. Please use the space below for any additional comments you consider appropriate regarding the UCSB-SDSU Joint Doctoral Program in Geography:

See narratives.

Graduate Student Survey Responses to Open Ended Questions

Number of Students Surveyed: 28

Number of Surveys Completed: 26

Student respondents made the following comments in answer to open-ended questions on the program review survey. Each text block contains the complete response of one student. In most cases, comments have been transcribed exactly as they were written. Where possible, similar responses are grouped together. Comments that identify the respondent or other persons have been edited; edited passages are enclosed in brackets.

11. If other factors [than those listed in the survey] were important in leading you to select your particular graduate program, please describe them: *Summary:*

9 students responded.

- *4 mentioned the opportunity to work with specific faculty, due to reputation or research interests.*
 - *2 mentioned the appeal of having access to/affiliation with two Geography departments.*
 - *There were 2 miscellaneous comments (placement of graduates/overall sense of program, flexibility of core requirements to match research interests).*
-

Comments:

I had well established research contacts in the region. I could have made new ones in another region, but it would have slowed my progress toward graduation.

Key factor for me was the alignment of interests with a SDSU faculty member.

Opportunity to participate in a research project with faculty at SDSU. That is how I first heard of the Joint Doctoral Program between SDSU and UCSB. I also was attracted to the unique combination of the two departments.

Reputation of specific faculty at SDSU.

Specific faculty research specialties and focus of research

access to both departments

The opportunity for networking between two major academic research institutions and the various connections they have to other major universities in allied disciplines.

- Placement of recent graduates. - Overall sense of program, obtained by visiting the campus and meeting with faculty and graduate students.

Having two core course requirements enables me to tailor my doctorate to better meet my research interests. This is especially important for students with interdisciplinary research interests that may require substantial work within other disciplines (e.g. psychology).

13. If your graduate program is not accurately described, what is inaccurate? Summary:

No responses.

14. Are there facilities or resources important for your work that are unavailable or inadequate [at either SDSU or UCSB]? Summary:

11 students responded. There were 5 students who referred to inadequacies at SDSU, 2 who referred to inadequacies at UCSB, 2 who referred to inadequacies at both campuses, and 2 whose comments did not specify a campus.

- *8 referred to inadequate computing resources (3 students referred to inadequacies at SDSU, 1 referred to inadequacies at UCSB, 2 referred to inadequacies at both campuses, and 2 did not specify a campus).*
 - *2 referred to other resources related to research (i.e., library at SDSU, physical geography lab space at SDSU).*
 - *2 mentioned inadequacies related to faculty/staff support (staff needs to improve communication with students at SDSU, UCSB needs more faculty in human geography/SDSU needs more competent staff).*
-

Comments:

Library in SDSU, and Computer facility in UCSB

SDSU -- Computing can be an issue, especially with the server problems we had last year that affect licensing, printing, and program functioning. UCSB -- My first quarter there, we were housed in trailers in a different area of campus. This made integrating into a new department challenging. I believe we will all be in the same building from now on, which I think is a great plan. In addition, printing and copying were a challenge at UCSB. I understand not wanting to waste resources, but a certain, reasonable quota of printing pages/copying before requiring a student to finance it would be appreciated.

At SDSU: The computing resources available are inadequate for even fairly simple processing and research. There is little to no support for qualitative research and analysis. Only one computer in one lab has NVivo. At UCSB: I don't know enough about resource issues at UCSB to have an educated opinion.

Computing policy and configuration at SDSU are restrictive and make for significantly slowed progress.

SDSU - computers in offices inadequate to perform basic research. Environment in labs difficult to work in, not all software necessary is accessible in labs.

It was difficult to get help with computer related issues (technical support - research support) at UCSB. At SDSU we have dedicated staff to assist students with advanced questions regarding GIS/Remote Sensing/data, computer issues on site in CESAR/SAL labs, M-F 8-5, which is invaluable.

Constant crashes of servers make it very difficult to rely on the department for computing needs. We, as graduate students, are forced to purchase laptops or desktop computers that work more efficiently. I know the lab computers are full of resources but the set up of them makes them unusable much of the time. Also not having Microsoft Word, Excel, or Access available on all lab machines is nonsense.

The labs are extremely well-equipped at both campuses, but an addition that would be helpful is a more complete suite of qualitative research software.

SDSU geography has no physical geography lab space beyond computers. I analyzed my soils samples between the SDSU ecology and the UCSB geography labs.

At SDSU it would be helpful to have more communication between staff (particularly computing staff) and students. Field research often requires special accommodations (from licensing of specific software to borrowing of field equipment). SDSU staff could communicate more effectively with students by responding to student requests (particularly email and phone requests) in a timely manner. Phone and email contacts from doctoral students to SDSU computing staff often are not returned. This does not always mean the student has been ignored, - occasionally the request has been met (software installed, etc) though the student has not been informed. Improving communication between computing staff and doctoral students would greatly increase the productivity of student research, by allowing timely access to computing resources.

UCSB needs to have more faculty who engage in critical theory and qualitative methods within human geography. It is very frustrating as a student who engages this research to have absolutely no support from faculty or staff. SDSU needs to hire staff that is more competent. One of the admin personnel is incredibly rude to students and often does not complete tasks at the expense of the students' money (i.e. not completing student reimbursements in a timely manner like taking 3-4 months to complete this).

15a. What is your assessment of the climate for graduate study that the UCSB-SDSU Joint Doctoral Program in Geography fosters, in general? *Summary:*

23 students responded – 19 who have completed their year at UCSB and 4 who have not.

- *18 described a positive climate for graduate study (UCSB year completed = 14, UCSB year not completed = 4).*
- *5 offered a mixed review of the climate for graduate study; they described an overall positive climate but also made suggestions for improvement, i.e., provide more teaching/research opportunities during UCSB year /foster more research collaboration*

between the 2 campuses, provide more space for grad students to mingle, some faculty are hostile towards students using qualitative methods, both programs admit too many students, human/cultural students are ostracized (UCSB year completed = 5).

- *3 described the climate at SDSU as good and the climate at UCSB as needing improvement, e.g., no sense of community at UCSB, SDSU students need to be better integrated into department at UCSB, hard to interact with UCSB faculty and students (UCSB year completed = 3).*

Comments:

Fantastic. The exposure to 2 different and high-caliber departments is a great way for graduate students to learn the best of both worlds.

freedom

In general, the SDSU-UCSB program has been a positive experience for me at both institutions. It is a great to experience both universities. Also, it is good to meet a variety of professors and their research.

Overall, it has been a very positive experience. The faculty and my advisor at SDSU, in particular, have been extremely patient with me as I find the academic path in which I am passionate about. The support at both institutions has been good to excellent.

Program fosters an inclusive learning environment and collaboration between students.

The climate is serious in the sense that the research we conduct is important and motivating. The enthusiasm of the graduate students is uplifting and provides a positive feedback loop.

The graduate student climate is generally excellent at both campuses. It takes a little longer to adjust to the climate at UCSB, but once one does, the opportunities in and outside the department of Geography are outstanding.

SDSU...I think that the graduate study at this program is good. I really enjoy the atmosphere among the students and faculty. Every program has its problems and SDSU nor UCSB is not without these.

Some graduate students work in lab settings (or defined groups) at both institutions, but this seems to be more common at UCSB. I think feeling a part of a lab or working group is an important component of being a grad student and SDSU should work to make more cohesive graduate student groups.

It fosters independence. The split between two campuses and wide array of program options means that each student experience is unique. Students which work well independently are offered extreme flexibility and access to a range of faculty. Students who require more structure have the potential to be "left in the wind"

Good climate but being transplanted to Santa Barbara for a year is rather challenging, both emotionally and financially.

my experience is limited to SDSU and it is positive, encouraging, nurturing, and academically diverse [UCSB year NOT completed]

the climate appears to be generally good for most students. the sdsu faculty is approachable and usually available for the grad students. [UCSB year NOT completed]

The climate is conducive to successful graduate study. [UCSB year NOT completed]

The SDSU geography department offers a very friendly, collaborative environment. [UCSB year NOT completed]

A very good climate for graduate study at both SDSU and UCSB overall. My biggest complaint is the lack of involvement joint-doctoral students have during their time at UCSB. Students are not provided opportunities for teaching OR research during the required year at UCSB - a major drawback to the program. Additionally, UCSB students and faculty do not take advantage of the faculty at SDSU. While we understand that UCSB students are not in the joint-doctoral program, more research collaboration between the two departments would be a great addition to both programs.

Good, more could be done to provide spaces for graduate students to mingle and work together at both campuses.

I think that the climate is collegial and challenging. I think overall the educational climate is excellent. There are occasionally issues for students who use qualitative methods at UCSB because many of the faculty members there don't know much about qualitative methods and/or critical social theory. This wouldn't be that big a problem except for the occasions when those faculty members are outwardly hostile to students who want to use approaches/theory that the faculty aren't familiar with. I think this is a relic of divisions within the discipline though, and will be eliminated as older faculty members retire. Though this problem is more pronounced at UCSB it also happens more privately at SDSU as well.

It's a decent environment as far as faculty go. I think both programs admit too many students, as there's considerable variability in graduate student ability/motivation, and that hurts the respective programs.

The program is diverse and open to all students, but its heavy leaning towards physical and technical geography means some ostracizing towards human/cultural geography students.

I am fairly satisfied with the climate at SDSU. It feels like a community. At UCSB, since so many of the offices were spread out, it was hard to achieve that sense of community. I had to seek it out in other departments. Also, since no one shared my research interests it was difficult to discuss research with any of them (faculty, staff and students).

In general the climate at SDSU is superior to that at UCSB. Some UCSB faculty are unfamiliar with the program, while some have appeared (vocally) to be opposed to it. While disagreements are understandable, the general climate at UCSB is less conducive to SDSU graduate research than that at the home campus at SDSU. Better integrating the SDSU students with the UCSB department would address this issue. This is in part the responsibility of SDSU

students - we need to better reach out to the UCSB geography graduate student community during our short time on the UCSB campus if we wish to be seen as an integral part of the UCSB program.

SDSU: excellent faculty, staff to student mentoring, faculty have open doors (can drop in anytime for discussion, advice), faculty are very available. Interaction/collaboration encouraged between students with open computer labs. At UCSB it was far more difficult to access faculty, and students seemed to be more isolated within their offices, so there was less interaction.

15b. What is your assessment of the climate for graduate study that the UCSB-SDSU Joint Doctoral Program in Geography fosters for women? Summary:

19 students responded: 8 women and 11 men.

- *15 described the climate for women as highly encouraging, good, supportive, equal, etc. (5 women, 10 men).*
 - *3 offered a mixed review, describing a generally positive climate but also raising issues of concern, e.g., the UCSB quarter system being less flexible with respect to family needs, the need for more women faculty (3 women).*
 - *1 declined to comment (1 man).*
-

Comments by women:

Also highly encouraging. In particular, it is helpful to have solid, female role models in each department. This not only shows that it is a department dedicated to equality but also provides students with faculty who can give advice on topics particular to women in academia.

good

Good.

I feel very equal as a woman in the geography department at both SDSU and UCSB.

I think both departments are supportive of women.

Both programs were equally supportive for women. SDSU is more amenable to being flexible and proactive with family issues in general (less intensive scheduling with the semester system at SDSU versus the quarter system at UCSB).

For several years, SDSU had very few women faculty members but in recent years, four of the five most recent hires have been women. Also, with groups within in the department like Supporting Women in Geography this has definitely helps. At UCSB, there could be more female faculty members.

The climate for women seems fine, although it would be nice to see more female faculty members as examples/role models for the female graduate students. As a woman, I don't feel

underrepresented or treated differently, although I do sometimes think I have made a terrible career choice if I want to raise a family.

Comments by men:

As a man, I can't say for certain, but my impression is that women in the program are treated exactly as their male peers are. There does not seem to be any gender-based bias in either department. I could be wrong though.

being a male I can not say from personal experience but there appears to be a good male/female balance and it appears that women thrive and excel in our department. I believe the addition of women to tenure track faculty positions, at least within the time I have been here is positive. And quite honestly some of the best classes I have taken have been from female professors

Equal opportunities.

I do not perceive any gender differences.

I have not seen any specific problems - the climate appears to be conducive to study by women graduate students.

No personal experience, but graduate student climate at both campuses for my female colleagues seems good.

Seems acceptable to excellent

seems inclusive to women

The climate seems equal for women and men.

Women participate as equals. I don't think that women are privileged or disadvantaged at either institution.

I cannot assess this question.

15c. What is your assessment of the climate for graduate study that the UCSB-SDSU Joint Doctoral Program in Geography fosters for historically underrepresented students (i.e., Native American/Alaskan, African American, Chicano, Latino)? Summary:

17 students responded: 1 from an Underrepresented Minority (URM), 16 from Non-URM.

- *7 commented on the lack of underrepresented minorities in the program (1 URM, 6 Non-URM).*
- *7 described a positive climate for students from underrepresented minorities (0 URM, 7 Non-URM).*
- *2 declined to comment (2 Non-URM).*

- *There was 1 miscellaneous comment ["more opportunities at SDSU I would think"] (1 Non-URM).*

Comments from URM students:

It can be improved, particularly for African American and Latino students...There are many international students and I believe it is a positive aspect of our department. However, I believe more efforts should take place with regards to recruitment of American "minorities" (don't like the term but it gets my point across). The two of us that are currently in the department are not enough; the numbers need to be increased. However the lack of numbers does not imply in any way that this is done on purpose. To the contrary I believe that faculty and staff are very open minded and supportive and quite possibly like me, are concerned about the issue I am raising. I have no doubt that many are sincerely looking for ways to bring up those numbers

Comments from Non-URM students:

Both departments are not very diverse - none of the above-mentioned groups are represented well at either department.

Both programs seem to have limited diversity in regards to both graduate students and faculty.

Sadly there aren't too many ethnic minorities in the SDSU dept (which I am more familiar with). I have not seen any disadvantage given to underrepresented groups however. In fact, there was some discomfort among the graduate students a few years ago when it was apparent that one student was given preference in admission to the JD program was based on the student's ethnicity.

SDSU - Generally good, although I am surprised at the lack of Native American students in a county that has the most reservations in the U.S. Perhaps this is a systematic issue at the undergraduate level, but more work could also be done to build ties with those communities. UCSB - Not sure, but could definitely be better.

There seems to be a dearth of African American students at both campuses. This situation is probably not unique to the SDSU/UCSB program as it seems to be symptomatic of geography programs in general in the U.S.

While there are many students engaging with these communities in their research at SDSU, these groups are grossly underrepresented at both campuses.

Both programs seem equally supportive of international students

fine

good

I do not perceive any ethnic differences for US citizens.

It seems good. We have a reasonably diverse graduate student body, and everyone seems valued and respected.

Seems acceptable to excellent

The climate seems equal for students from any racial/ethnic group.

Again, no personal experience.

I cannot assess this question.

More opportunities at SDSU I would think.

15d. What is your assessment of the climate for graduate study that the UCSB-SDSU Joint Doctoral Program in Geography fosters for international students? *Summary:*

19 students responded: 2 International students, 16 Non-International students, and 1 Unknown International status student

- *13 described a positive climate for international students (13 Non-International).*
 - *4 suggested the climate for international students could be improved (2 International, 1 Non-International, 1 Unknown).*
 - *1 would like to see the program admit fewer international students and place more focus on the racial/ethnic diversity of U.S. citizens (1 Non-International).*
 - *1 declined to comment (1 Non-International).*
-

Comments from International students:

nothing special

The orientation of SDSU was not enough to understand the system.

Comments from Non-International students:

Again, no personal experience. However, numerous conversations with international students provides anecdotal evidence that the program (at both campuses) is supportive.

because of cultural differences it can be difficult to adjust but as geographers we are able to understand and appreciate the cultural differences many of our international colleagues may experience. I see a great deal of support and encouragement for international students from both faculty and students in our department.

Both programs seem equally supportive of international students

fine

good

I think the SDSU program is very good at encouraging and supporting international students.

I'm probably not qualified to speak on this topic either. The international students seem to do quite well in the program, and I've never seen anyone lose an opportunity due to their residency status.

International students seem to be well represented and well integrated into student population.

Just fine. Both faculties are cosmopolitan and so are the international students.

My impression is generally good. SDSU has a lot of international students and visiting scholars. UCSB -- Also good, I believe. The workshops and research connections seem to help build these ties.

Seems acceptable to excellent

The climate seems equal for international and US students.

It seems fine, although I don't know much about the support offered to international students.

I do perceive that it's tougher for international students, and I do not see resources within the department that help international students keep up with expectations. There are other resources on each campus, but I don't know how they are utilized.

We have a LOT of international students. Perhaps too many... Funding international students cost 3-4 times as much as a U.S. citizen. I would like to see the departments focus more on racial/ethnic diversity of U.S. citizens rather than continuing to bring international students into the program - who almost always return to their home country following matriculation.

I cannot assess this question.

Comment from Unknown International status student:

I don't know too much about this but it seems international students are often confused regarding funding and university policies. This needs to be clearer.

16a. What do you think are the primary strengths of your program? Summary:

26 students commented on program strengths.

- *22 referred to the benefits of having access to two Geography departments rather than just one.*
- *6 mentioned the exposure to two institutional cultures.*

- *6 mentioned the connections/relationships/sense of community with both faculty and fellow students that the program fosters.*
- *3 mentioned the strong sense of collegiality and support at SDSU, specifically.*
- *There was 1 miscellaneous comment (well rounded faculty and strong publication rate at SDSU).*

Comments:

Access to world class faculty of diverse backgrounds, freedom to construct to your own program of study, and getting to experience two different but both high functioning academic departments with very different modes of operation.

The biggest strength is that students are able to draw from the expertise of faculty in both departments. Few programs in the country can offer such a huge diversity of faculty interests, skills, and name recognition. Also, learning the politics of two departments, and two bureaucracies is a hassle while in the program, but I think is very useful as graduates go forward and find employment (in academia especially).

Noteworthy strengths of the Joint Doctoral Program (JDP) are access to faculty members with diverse fields of expertise, readily available faculty members, and a helpful support network of fellow graduate students.

1. having two departments with different areas of expertise. 2. access to research efforts outside of UCSB's geography dept that are not available at SDSU. 3. The diversity of experience, world-views and research interests that comes with two departments and two student bodies.

Exposure to two departments with different strengths/foci.

The exposure to a broad range of perspectives from faculty in the two departments is a fundamental strength of the program. I think the two departments compliment each other quite well in terms of the strengths and weaknesses that may be experienced by JDP students.

- The UC is an excellent system.. access to two campuses, libraries, and sets of resources is a great privilege. - The ability to broaden one's experience and knowledge base by utilizing the strengths of two groups of faculty. - At UCSB, taking classes outside of geography has been an excellent opportunity. - At SDSU, collegial atmosphere: geography faculty are amazing, encouraging, and excellent mentors. - Great benefits and multi-year funding that allows students to focus on work and not have to worry about competing with colleagues. - I appreciate the focus on seeking external funding, as well as research and publications. - While each campus and department has its own culture, and collegiality manifests itself in different ways, the SDSU department's degree of collegiality is extremely high.

Students get opportunities for greater exposure to courses, faculty, and get to experience two different University systems, which is exciting

The exposure of students to both a research centered institution (UCSB) and a teaching oriented institution (SDSU) is invaluable for students interested in a career in academia. Teaching experience gained at SDSU (where students often act as the sole instructors for

lecture courses, sometimes with as many as 125 students) is excellent preparation for a teaching career. The sizable geography department at UCSB and research experience of UCSB faculty is valuable to SDSU students interested in research careers.

As a SDSU student, I could use UCSB resources. In addition, it is good to experience professors and students in both universities

Having twice the amount of faculty expertise to help guide your dissertation research. Having twice the amount of courses available to take classes from. Involvement with students at two universities.

Access to two departments, including two sets of faculty. The SDSU faculty always have their doors open and are extremely accessible. Through the connection to UCSB, however, I had the opportunity to work with professors I would not likely have had the opportunity to work with otherwise.

We have resources available at both campuses. SDSU is wonderfully supportive.

Access to both programs

Access to faculty and researchers at both institutions.

Access to two of everything. Two sets of faculties, computing resource teams, and graduate students.

I think having access to two different faculty can be a real strength for the program, but this will vary depending on the student and committee members.

The fact that it brings the strengths of two of the top geography programs in the country is very important. Physical geographers get to be part of some of the most prestigious faculty in spatial and physical geography. While human/cultural geographers get exposure to the spatial world while getting access to the resources of one of the top liberal arts/social science institutions in the country.

We get to draw from the best parts of 2 fantastic departments and campuses.

Without doubt, it is nice to have access to two sets of faculty, general learning resources, peer groups, and research communities. That might be the only strength, but it's a big one.

availability of diverse faculty members

Freedom and diversity of class scheduling, excellent faculty, strong and wide-ranging background in a number of core areas of geography

The opportunity to experience the cultures at two different institutions is the greatest strength of the program. Also the opportunity to connect with additional faculty and graduate students is a real plus.

I think we have great people who are doing interesting research, and I think we also have a great sense of community.

Students are able to establish relationships with professors in both campuses.

SDSU has a well rounded faculty capable of handling subject matter across an incredibly diverse academic discipline. Very strong in terms of publication rates.

16b. What do you think are the primary weaknesses of your department? Summary:

26 students responded.

- *18 mentioned the difficulties students face related to spending the second year at UCSB (e.g., the burden and disruption of relocating for one year, difficulty in forming connections with both faculty and fellow students).*
 - *9 mentioned a lack of support/direction during the year at UCSB.*
 - *5 mentioned poor communication, particularly between the two campuses.*
 - *2 mentioned the computing resources at SDSU.*
 - *There were 2 miscellaneous comments (decrease in amount of travel funding, "the difficulty in finding faculty at both universities interested in and capable of guiding dissertation research").*
-

Comments:

The lack of integration of SDSU students into teaching and research during their year at UCSB. The expense and stress of being required to live in Santa Barbara for one year with no additional financial help - despite the large difference in the cost of living between San Diego and Santa Barbara.

(1) The annual migration between campuses make it hard for many students to gain traction in their work, and it slows the process down. It's financially and emotionally draining at a time when students are supposed to be preparing for exams. (2) Many UCSB faculty are not invested in the joint program because they gain little from it and have students of their own to worry about. This minimizes the impact of being at UCSB -- the pool of resources is not as big as it appears, depending on your interests.

Lack of faculty support at UCSB, disruption of studies at SDSU.

The logistics of moving between campuses can be challenging. Also it can be difficult for SDSU students to be fully encompassed into the UCSB program since we are just "visiting". For example there were very little opportunities for many of us to become involved with Teaching and ongoing research at UCSB (although it did give us more time to work on our own research, which is a positive).

Noteworthy weaknesses of the JDP are lack of communication between the Departments of Geography at SDSU and UCSB, inadequate office computers at SDSU, and graduate students must relocate without compensation.

administrative challenges between the programs mean that requirements can be unclear and student often receive messages from either university that do not apply to them. Having to move between the two places often makes personal and family decisions difficult.

- The adjustment period at the start of the UCSB year. - Cost of living: while we understand that budgets are difficult, the overall funding levels could be more competitive in order to attract even more competitive students. - The amount of travel funding seems to have decreased substantially, which may negatively impact the visibility of our students (and our department) at major conferences. - Not a weakness as much as a challenge: the distance between the two campuses, but this is not a surprise since we all know about prior to starting the program. However, the element of distance surfaces in different ways: students have limited interaction with the cohorts that immediately precede and follow them (e.g. 2nd year students will have limited interaction with both 1st and 3rd year students).

The difficulty in finding faculty at both universities interested in and capable of guiding dissertation research. Additionally, the staggering of years between years 1 and 3 at SDSU causes a lack of student cohesion between cohorts, student colleagues and faculty.

Moving

Relocation and time commitment to both programs

I think moving to UCSB for one school year is fairly inconvenient, especially for students with spouses. However, maybe after my year at UCSB, I will feel that it is worth it.

Spending one year in UCSB can become disruptive. The fact that we only spend one year out of the 4 or 5 generates a weaker connection to UCSB's geography department.

The travel and lack of affordable housing in the Santa Barbara area is a weakness.

Logistical nightmare in regards to moving to Santa Barbara, especially for married students.

I really enjoyed my UCSB year, but it was difficult to move around so much. This is particularly difficult for students doing international research.

The distance between the two institutions is a drawback.

From the perspective of a human/cultural geographer the lack of courses in cultural human geography at UCSB is a big issue. Another issue is the distance and the logistics of having to be away from San Diego for a year; it certainly causes disruptions for family, for housing, transportation etc. The last issue, particularly for those of us doing work on the US-Mexico border it is again, the distance from the location of our field work. (though as geographers we are used to doing research in far away places.)

1. Little of contact or interaction with UCSB grad students during residency at SDSU. 2. First year students are formulating their research plans during their first two semesters in close proximity to the SDSU faculty but without this type of sustained contact with UCSB faculty.

The focus of the year at UCSB could be better defined. As no coursework is required, students focus during this year is highly dependent on their UCSB advisor. Some SDSU students work as research assistants for their UCSB faculty, others work on their own independent research. It is incumbent on SDSU students to ensure they meet with their UCSB advisers prior to departing for UCSB, so that students can gauge their expected duties during their year at UCSB, and better plan how they will be spending their time. The short distance between SDSU and UCSB does make communication and meetings with faculty from both institutions easier than it might be given the separate programs, but better support could be provided from SDSU in arranging some of the milestones (orals, writtens, etc.) SDSU campus computing restrictions on the usage of Skype can make Skype conferences for oral exams difficult, though Skype is increasingly becoming a necessity given the travel schedules of students and faculty from both institutions.

Direction during the year at UCSB must be improved. Too many students waste the year in Santa Barbara. As one student in the UCSB PhD program joked, the year in SB for JD students can be like "introduction to sabbatical". That is to say, it can be productive, but it also can be a year-long vacation in SB.

Having to go to UCSB and have no support from faculty.

The low acceptance of non-scientific engagements with research at UCSB is rather unfortunate--despite being a prominent tradition in the discipline of geography. In some cases it leads to the alienation of SDSU students at UCSB and does not pay justice to the richness of geography as an academic field of study.

Lack of human geographers working with qualitative methods at UCSB.

Communication. Communication between the two programs in terms of the rules and regulations is mostly non-existence. It seems that every time I finally get one department happy the other is no longer happy and requiring other documents or payments.

Weak connection between two campuses, time consuming in logistics and communication

Communication overall. Within each department, between departments, and within campuses. Procedures seem to change or not get communicated properly. Financial aid offices sometimes don't understand who we are. Even within departments, administration doesn't seem to know requirements, and if they don't then we have to remake the wheel every year.

16c. What is the most important improvement your department could make? Summary:

23 students responded.

- *8 called for better integration of JDP student into the UCSB department.*
- *5 called for more human geographers on the faculty at UCSB.*
- *5 suggested that communication must be improved, i.e., communication between the SDSU and UCSB departments, as well as communication to students regarding bureaucratic issues they face at each campus.*
- *3 made suggestions for strengthening the connections and collaborations between the two campuses.*

- 2 suggested creating an option for students to spend more time at UCSB.
- 2 called for eliminating the requirement of spending a year at UCSB.
- 1 student requested "An outside committee member for extraneous circumstances in which a student would require someone with greater expertise from a different department."

Comments:

Better integrating the SDSU students into the UCSB program, including supporting SDSU students in choosing UCSB advisers whose interests are well aligned with student's research interests. Human geographers in particular have had some difficulty in choosing their UCSB committee members. It might be helpful for SDSU faculty to familiarize UCSB faculty who might be interested in hosting SDSU students during their time at UCSB.

Improved direction for JD students while in residence at UCSB, and a thorough handbook explaining all of the bureaucratic issues at both universities. As it stands, every student has to figure it out on their own - partly because the rules change damn near every year, but also because of turnover in the administration staff of the departments and the university offices as well.

More ties between campuses to make us more of a community. It's hard to switch schools and we sometimes end up not knowing people in other years or not getting integrated into UCSB. Perhaps a joint workshop series could help in this regard. Or planned trips between departments.

Although I have not yet spent my year at UCSB, I have heard that the SDSU students there sometimes get forgotten about by faculty (but I also know this is a function of the effort the students put in to schedule meetings and remain part of research). It seems like it would be useful to make sure that the SDSU students are included in research and feel like part of the UCSB community.

Find a way to integrate SDSU students better at UCSB. For example you could assign UCSB grad student mentors to SDSU students and even assign work hours in the same manner/ brainstorm ongoing projects that SDSU students could become involved with (faculty/grad students could make a wish list).

Make SDSU students incoming to UCSB feel more welcome and involved with activities at UCSB.

Provide students with teaching and research opportunities during their year at UCSB. Not including SDSU students as part of the workforce is wasteful to the department, excludes SDSU students from fostering relationships with UCSB faculty and students, and does not allow SDSU students to gain additional knowledge and skills during their time in Santa Barbara.

The integration of the SDSU students into the UCSB program is tricky. We are kinda treated as step-children in the UCSB department, but if I was in the UCSB department, I'd do the same thing. From my experience, the SDSU students arrived in UCSB and we're rather clicky since we had already known each other the previous year. I think this puts off many of the UCSB students. We also referred to ourselves (and by others) as the SDSU students. This doesn't

bode well for integrating into the UCSB department. I'm not sure there is an easy way of integrating the SDSU students considering the circumstances and transitory nature of the year in SB, but it would certainly help improve the SDSU student experience in SB.

Having been in the program only a year I don't feel like I can provide an accurate assessment, but improving on the areas I listed as weakness could be a start. [From the perspective of a human/cultural geographer the lack of courses in cultural human geography at UCSB is a big issue. Another issue is the distance and the logistics of having to be away from San Diego for a year; it certainly causes disruptions for family, for housing, transportation etc. The last issue, particularly for those of us doing work on the US-Mexico border it is again, the distance from the location of our field work. (though as geographers we are used to doing research in far away places.)]

- For myself and students like me, the human geography faculty at UCSB are great, but having course offerings that reflect the breadth of the discipline (from both methodological and topical standpoints) in the UCSB Geography department would be very useful.

A more diversified faculty at UCSB that can accommodate the contingent of SDSU graduate students working with qualitative methods in human geography

UCSB hiring someone who does human/cultural geography.

Provide more guidance for new students about the resources from both campuses and suggestion on how to take advantage of them

Communication between the departments. There needs to be a set of rules that are updated annually and are well advertised.

Improving communication between the Departments of Geography at SDSU and UCSB is the most important improvement for the JDP.

institutionalizing the joint program at both institutions so that it is well understood by administrators and staff, rather than an exception that always a surprise.

Improve access to both faculty at the start of the joint-doctoral program. Suggestion: The first semester could be a hybrid semester/quarter that starts with 8 weeks at SDSU followed by 8 weeks at UCSB. Courses would focus on faculty research (similar to fall quarter Geog 200A), geographic thought (SDSU's Geog 701. Research design and grant proposal writing should be separate courses. Dedicated time with potential advisors could be through directed reading or participatory seminars. Some shared class time with first semester UCSB grad students would be helpful as well.

Improve connections and collaborations between UCSB and SDSU, such as joint research projects etc. My committee has never all been in the same room, making it difficult to feel like I am working with a team.

Perhaps the option for students to spend more time at UCSB, if beneficial, would be an improvement.

SDSU students should be allowed to go back to UCSB to take classes that were not offered during their time at UCSB.

Remove relocation requirement

The best and most obvious improvement would be to make the affiliation optional and let SDSU run its own program. For heaven's sake, the Regents rules were written by humans and can be changed by humans; this is not some pre-ordained natural law that requires an alteration of the space-time continuum. The faculty at SDSU are just too lazy to pursue it.

An outside committee member for extraneous circumstances in which a student would require someone with greater expertise from a different department.

17. Please use the space below for any additional comments you consider appropriate regarding the department and/or your graduate program? Summary:

13 students responded.

- *6 expressed their satisfaction with the program.*
- *3 made suggestions for improvement directed at faculty (more research collaboration between SDSU and UCSB faculty/more faculty-student research & publication collaboration, faculty should treat students more respectfully, faculty need to be more engaged in career advising and job placement).*
- *3 made suggestions for improvement related to program curriculum (expand course offerings [2], streamline the campus transfer process and clarify policies/procedures, allow for more interdisciplinary research).*
- *1 commented on the difficulty of moving to Santa Barbara for one year.*
- *There were 2 miscellaneous comments (citation of a research article on "fatigue effects in responses to long questionnaires", "I thought it was called the SDSU-UCSB Joint Doctoral Program").*

Comments:

The departments at both universities are excellent, the opportunity for individual growth and experience is essential and well provided for, and the workload is appropriate for this level of graduate education. My only hesitation would be to suggest greater regard for critical qualitative research at UCSB by providing access to out of department faculty and possibly expanding the course offerings within the departments of both SDSU and UCSB.

Overall, this is a really great program. I think one thing that really needs to be improved is the UCSB year. Many students dread this year due to the difficulty of moving for one year. For me, the opportunity to spend a year taking courses at UCSB was beneficial to my education, but it also made my experience at SDSU feel very disjointed (I also spent a year abroad doing research). I'm not sure that this will necessarily drastically improve the situation, but I think having an SDSU house at UCSB would be helpful (a relatively reasonably priced place where

SDSU students could stay in UCSB). Maybe UCSB students could also have an opportunity to come to SDSU for a semester?

[Name deleted] has done an exemplary job as Doctoral Program Advisor. He regularly communicates important information about the program and reports student progress. He responds to inquiries promptly and provides moral support as needed. Keep up the great work!

I am glad to be in the department, I feel supported, encouraged and nurtured. The faculty almost without exception are just "awesome". While I may not be the best student in the world my faculty mentors and adviser have always believed in me and if necessary have pushed me to excel. The graduate students are some of the smartest and most dedicated students I know. The combination of a dedicated, nurturing and knowledgeable faculty; a competent and equally dedicated support staff; and talented and hard working graduate students make this a top geography department. I am lucky and blessed to be part of it.

I feel very fortunate that I was a part of this program and I highly recommend it to others.

Overall, I think it is an exceptional program.

"General comments on various topics brought up in the survey:

- Preparation for teaching is an important consideration. UCSB has the CCUT program, but there does not seem to be a campus-wide equivalent at SDSU. Other CSU campuses allow graduate students to attend faculty development courses, but SDSU's Center for Teaching and Learning does not allow graduate students and teaching assistants to register for their events.
- Given the breadth of research and creative activities happening at UCSB, in the future it would be nice to find some mechanism to have students come in "up to speed" on what is happening so that they can participate more fully in research activities in the relatively short time that they are at UCSB. Perhaps having more active research collaborations between SDSU and UCSB faculty would be helpful? Or having SDSU students visit UCSB for a week during the Spring quarter before they go to UCSB? While I benefitted greatly from my UCSB year, I definitely feel that I could have benefitted even more from it, had the adjustment period been shorter.
- Some aspects of the program (e.g. minimum and maximum teaching expectations, the timeframe for M.A./M.S. degree completion) could be more clearly laid out in the SDSU doctoral student handbook, which would hopefully improve the student perception of departmental consistency.
- While the department at SDSU aspires to improve its ranking (a goal shared by the students, obviously), some of the resources at SDSU may lag behind what we understand other top 10 programs offer.
- Fellow graduate students are an important resource and long-term collegial connections can form in the doctoral program. It is unfortunate that SDSU students do not seem to interact as closely with UCSB students as they could – having a connection to outstanding faculty is a huge plus, but doubling the network and forming stronger connections with UCSB students is an opportunity that seems relatively underutilized.
- The open labs in the UCSB Geography department are excellent, highly effective workspaces, and as open labs they form a model that could be emulated at SDSU.
- I feel that publishing could be emphasized a bit more prominently at SDSU. My very first interaction with a UCSB faculty member emphasized publishing and set the tone for what I expected from the year at UCSB. Students at SDSU are informally encouraged to publish their research, but having a reasonable publication expectation could be helpful in pushing students

to the next level. Faculty-student collaborations in research and publication seem to vary widely.

- Mentors: Apart from the efforts of my committee members, I have been mentored by faculty in the department at SDSU and outside the department at UCSB.

- Cost of living: Increases in cost of living (it is obvious that San Diego and Santa Barbara are extremely pleasant working environments and desirable places to live) seems to have outpaced increases in doctoral student stipends. Even a modest increase in the stipend amount would be incredibly helpful.

- Overall: I am very glad that I made the decision to join the SDSU/UCSB joint doctoral program, I am greatly appreciative of the efforts of those who oversee it, and my experience has been excellent. The faculty members I work with are outstanding, and the positive role of my graduate student colleagues cannot be overstated. From my interactions and conversations with doctoral students in geography programs at other institutions, I know how fortunate we are."

It would probably be good for faculty at both institutions to treat their student body with higher levels of respect. They are training PhD students and often seem to think that the students are too dense to realize when they are getting screwed by the department, university, etc. If the departments are really interested in improving the program and its reputation, the faculty would do well to remove the line "it was worse when I was a PhD student" from their vocabulary. That is an irrelevant argument and insults the efforts of the students to improve the department and program. There sometimes seems to be an inclination from faculty members to ignore student ideas or requests because the students won't be around for that long. This is another misguided position - current students' future employment opportunities depend in a much larger degree on the perceived value of their degree, which is a function of the reputation of the department, than does tenured faculty members' future opportunities.

There was an earlier question about "Departmental assistance in career advising and job placement." This is an utter joke at both institutions, and seems a pervasive problem throughout academia. Undergraduates at each school get more help from their respective career development offices than doctoral students get from their home departments. This is a travesty that requires broad attention within academia, though SDSU and UCSB have the opportunity to be leaders and improve outcomes of their graduates by actually *doing anything* to help their graduates network and find top placements. It is an utter joke that so many talented individuals struggle to find work, and it's not for lack of jobs, even in a slow economy. Not every graduate can become a professor -- it's just not possible -- and faculty need to wake up to this and be engaged in career development.

A computing course would be a good addition (particularly at SDSU) in order to prepare students to hand datasets, coding, and scripting. This would be useful for all types of geographers in our department. Also would be great to streamline the campus transfer processes (financial aid is a particular headache for some students, and we don't have a lot of leeway). In general, improving publicity and also clarifying policy and procedures at both campuses.

Research in the academy is becoming more interdisciplinary and cross-disciplinary. The challenge for this approach is to be able to integrate two or more different academic cultures and do so in a respectful and productive manner. For those students like myself who come from outside of academia and outside of the sciences (natural or social) the cultural differences are

I just read a paper on fatigue effects in responses to long questionnaires: Galesic, M. & Bosnjak, M. Effects of questionnaire length on participation and indicators of response quality in a web survey. *Public Opinion Quarterly*, 2009, 73, 349-360

I thought it was called the SDSU-UCSB Joint Doctoral Program.

**UCSB-SDSU Joint Doctoral Program in Geography
Academic Program Review Student Survey**

1a. How many semesters have you completed at SDSU in the UCSB-SDSU Joint Doctoral Program in Geography (including the current semester, if applicable)?

1. 1-2
2. 3-4
3. 5-6
4. 7-8
5. 9-10
6. 11+

1b. How many quarters have you completed at UCSB in the UCSB-SDSU Joint Doctoral Program in Geography (including the current quarter, if applicable)?

1. 0
2. 1
3. 2
4. 3
5. 4+

1c. Did you complete your bachelor's degree at SDSU or UCSB?

1. Completed bachelor's degree at **SDSU**
2. Completed bachelor's degree at **UCSB**
3. Completed bachelor's degree at another institution

1d. Did you complete your master's degree at SDSU or UCSB?

1. Completed master's degree at **SDSU**
2. Completed master's degree at **UCSB**
3. Completed master's degree at another institution

1e. What is your sex?

1. Male
2. Female
3. Transgender
4. Other (please specify) _____
5. Decline to State

1f. What is your racial/ethnic heritage? (Please mark all that apply.)

- 1 Native American/Alaska Native
- 2 Black/African American
- 3 Chicano/Chicana/Mexican American
- 4 Latino/Latina/Other Spanish American
- 5 Chinese/Chinese American
- 6 Korean/Korean American
- 7 Philippine/Filipino
- 8 Japanese/Japanese American
- 9 Pacific Islander
- 10 Other Asian
- 11 East Indian/Pakistani
- 12 Latino/Latina/Other Spanish American
- 13 White/Caucasian
- 14 Other (please specify) _____
- 15 Decline to state

1g. Are you an international student?

1. Yes
2. No

1h. Upon completion of your degree, what are your objectives for employment? *Please mark all that apply.*

1. Academic Teaching
2. Academic Research
3. Private Industry Research
4. Private Industry (Other)
5. Other Professional (Attorney, Doctor, Artist, etc.)
6. Government or Public Service
7. Other (please specify) _____
8. Not Sure

1i. While enrolled in this program have you received a stipend as a SDSU Teaching Associate?

- 1 Yes
- 2 No

1j. Have you had any other employment or source of financial support (e.g., employment on grants and contracts, or travel support) from either SDSU or UCSB during the academic year?

- 1 Yes, from SDSU only
- 2 Yes, from UCSB only
- 3 Yes, from both SDSU and UCSB
- 4 No

1k. Have you had any other employment or source of financial support (e.g., employment on grants and contracts, or travel support) from either SDSU or UCSB during the summer?

- 1 Yes, from SDSU only
- 2 Yes, from UCSB only
- 3 Yes, from both SDSU and UCSB
- 4 No

11. During your time at SDSU, please indicate the number of hours per week in a typical semester you have worked as a:

	Hours per week							
	None	1-5	6-10	11-15	16-20	21-25	26-30	31 or more
Teaching assistant								
Lecturer								
Research assistant								
Other paid job								

1m. During your time at UCSB, if applicable, please indicate the number of hours per week in a typical quarter you have worked as a:

	Hours per week								Not Applicable
	None	1-5	6-10	11-15	16-20	21-25	26-30	31 or more	
Teaching assistant									
Lecturer									
Research assistant									
Other paid job									

[IF # of hours worked as a teaching assistant = None AND # of hours worked as a lecturer = None, SKIP TO p. 6: Instruction]

Teaching Experience.

1n. How satisfied are you with the following aspects of your teaching experience while in the UCSB-SDSU Joint Doctoral Program in Geography?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Your lecturing or teaching assistant experience as a doctoral student						
The preparation and mentoring you received for teaching as a doctoral student						

Instruction.

2a. How satisfied are you, in general, with the following aspects of instruction at SDSU?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Graduate instruction by faculty within the Geography department						
Graduate instruction by faculty in departments other than Geography						
Availability of instructors to discuss graduate coursework outside of class						
Faculty assistance in preparing you to meet your responsibilities as a Teaching Associate						
Appropriateness of Teaching Associate workload						

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

2b. How satisfied are you, in general, with the following aspects of instruction at UCSB?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Graduate instruction by faculty within the Geography department						
Graduate instruction by faculty in departments other than Geography						
Availability of instructors to discuss graduate coursework outside of class						
Faculty assistance in preparing you to meet your responsibilities as a Teaching Associate						
Appropriateness of Teaching Associate workload						

Research or creative activities.

3a. How satisfied are you with the following aspects of research or creative activities at SDSU?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Faculty expertise in your area of interest						
Availability of opportunities for becoming involved in creative activities (e.g., research, performance, clinical work, laboratory or library research)						
Opportunities to present research at departmentally supported events (e.g., brown bags, colloquia, etc.)						
Travel support to attend professional conferences						
Availability of grants, awards and scholarships in support of research or creative activities						

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

3b. How satisfied are you with the following aspects of research or creative activities at UCSB?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Faculty expertise in your area of interest						
Availability of opportunities for becoming involved in creative activities (e.g., research, performance, clinical work, laboratory or library research)						
Opportunities to present research at departmentally supported events (e.g., brown bags, colloquia, etc.)						
Travel support to attend professional conferences						
Availability of grants, awards and scholarships in support of research or creative activities						

Advising.

4a. How satisfied are you with the following aspects of advising at SDSU?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Assistance in planning your course of study						
Academic advice offered by faculty advisors						
Communication of departmental and university rules and policies for graduate students						
Departmental assistance in career advising and job placement						
Availability of faculty advisors						

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

4b. How satisfied are you with the following aspects of advising at UCSB?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Assistance in planning your course of study						
Academic advice offered by faculty advisors						
Communication of departmental and university rules and policies for graduate students						
Departmental assistance in career advising and job placement						
Availability of faculty advisors						

Curriculum.

5a. How satisfied are you with the following aspects of the graduate curriculum at SDSU?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
The content of courses offered by the Geography department						
The diversity of courses offered by the Geography department						
The availability of courses offered by the Geography department						

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

5b. How satisfied are you with the following aspects of the graduate curriculum at UCSB?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
The content of courses offered by the Geography department						
The diversity of courses offered by the Geography department						
The availability of courses offered by the Geography department						

Facilities and equipment.

6a. How satisfied are you with the following aspects of facilities and equipment at SDSU?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Access to office space						
Access to space for research or other creative activities (labs, studios, etc.)						
Equipment and facilities which support instruction						
Equipment and facilities which support research or other creative activities						

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

6b. How satisfied are you with the following aspects of facilities and equipment at UCSB?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
Access to office space						
Access to space for research or other creative activities (labs, studios, etc.)						
Equipment and facilities which support instruction						
Equipment and facilities which support research or other creative activities						

Graduate employment.

7a. How satisfied are you with the following aspects of graduate employment at SDSU?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
The Geography department's procedures for allocation of TAships and other forms of graduate employment						
Availability of TA or research assistantships						
Communication from the Geography department concerning decisions about graduate employment						
Equity of the distribution of financial support allocated by SDSU within your program						

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

7b. How satisfied are you with the following aspects of graduate employment at UCSB?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
The Geography department's procedures for allocation of TAships and other forms of graduate employment						
Availability of TA or research assistantships						
Communication from the Geography department concerning decisions about graduate employment						
Equity of the distribution of financial support allocated by UCSB within your program						

Academic climate.

8a. How satisfied are you with the following aspects of academic climate at SDSU?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
The Geography department's consistency in the application of rules and policies						
The Geography department as an intellectually stimulating and exciting place for learning						
Attitude of faculty toward teaching						
Attitude of faculty toward mentoring						
Attitude of staff toward students						

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

8b. How satisfied are you with the following aspects of academic climate at UCSB?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
The Geography department's consistency in the application of rules and policies						
The Geography department as an intellectually stimulating and exciting place for learning						
Attitude of faculty toward teaching						
Attitude of faculty toward mentoring						
Attitude of staff toward students						

9a. How would you characterize the general academic quality of the following groups within the Geography department at SDSU?

	1 Excellent	2 Good	3 Fair	4 Poor	5 Don't Know
Undergraduates					
Graduate Students					
Lecturers					
Faculty					

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

9b. How would you characterize the general academic quality of the following groups within the Geography department at UCSB?

	1 Excellent	2 Good	3 Fair	4 Poor	5 Don't Know
Undergraduates					
Graduate Students					
Lecturers					
Faculty					

10a. Are there facilities or resources important for your work that are unavailable or inadequate at SDSU?

1. Yes
2. No
3. No Opinion

[IF #Quarters at UCSB = 0, respondent will NOT see this question]

10b. Are there facilities or resources important for your work that are unavailable or inadequate at UCSB?

1. Yes
2. No
3. No Opinion

[IF 'Are Facilities/Resources for your work unavailable' = YES, at either SDSU or UCSB]

11. Please explain what facilities or resources are unavailable or inadequate. If any of your comments apply to just one campus, either SDSU or UCSB, please be sure to specify this in your response.

NOTE: As you respond to the following questions please consider your program as a whole rather than specific persons or courses. Comments that identify individuals will be edited to provide anonymity. If any of your comments apply to just one campus, either SDSU or UCSB, please be sure to specify this in your response.

Climate. What is your assessment of the climate for graduate study that the UCSB-SDSU Joint Doctoral Program in Geography fosters:

12a. in general?

12b. for women?

12c. for students from historically underrepresented racial/ethnic groups (i.e., Native American/Alaskan, African American, Chicano, Latino)?

12d. for international students?

Again, as you respond to the following questions, please consider your program as a whole rather than specific persons or courses. Comments that identify individuals will be edited to provide anonymity. If any of your comments apply to just one campus, either SDSU or UCSB, please be sure to specify this in your response.

13a. What do you think are the primary strengths of the UCSB-SDSU Joint Doctoral Program in Geography?

13b. What do you think are the primary weaknesses of the UCSB-SDSU Joint Doctoral Program in Geography?

13c. What is the most important improvement the UCSB-SDSU Joint Doctoral Program in Geography could make?

Morale.

14. Overall, the morale of graduate students in the UCSB-SDSU Joint Doctoral Program in Geography is:

- 1. Excellent
- 2. Good
- 3. Fair
- 4. Poor
- 5. Don't Know

15. How satisfied are you with the following aspects of the UCSB-SDSU Joint Doctoral Program in Geography?

	1 Highly Satisfied	2	3 Moderately Satisfied	4	5 Not at all Satisfied	6 No Opinion
The overall program of study leading to your degree						
Program requirements for earning the degree you are pursuing						
Career preparation						

16a. Has there been a faculty member, other than your faculty advisor(s), you consider to be a significant mentor (i.e., a faculty member who has given you advice about your education, career development, or other matters of concern to you as a graduate student)?

- 1. Yes
- 2. No [SKIP TO Career Preparation]

[IF 'Has there been a faculty member, other than your faculty advisors, you consider to be a mentor' = YES]

16b. Is this faculty mentor in the Geography department?

1. YES, in the Geography department at SDSU
2. YES, in the Geography department at UCSB
3. NO, in the another department at SDSU
4. NO, in the another department at UCSB

17. How well do you think the UCSB-SDSU Joint Doctoral Program in Geography will have prepared you for a career in each of the following employment sectors?

	1 Very Well	2 More than Adequately	3 Adequately	4 Less than Adequately	5 Poorly	6 No Opinion
University/college teaching						
Other teaching						
Research						
Private industry						
Government						

18. How important was each of the following factors in your decision to enroll in the UCSB-SDSU Joint Doctoral Program in Geography?

	1 Extremely Important	2	3 Moderately Important	4	5 Not Important
Reputation of the program's faculty at SDSU					
Reputation of the program's faculty at UCSB					
SDSU's reputation in general					
UCSB's reputation in general					
Financial considerations					
Geographic considerations					
Family considerations					
Other*					

***If other factors were important in leading you to select your particular graduate program, please describe them:**

19a. Is the UCSB-SDSU Joint Doctoral Program in Geography accurately described in the SDSU and UCSB general catalogs and in other university and/or departmental publications (web sites, brochures, etc.) at each campus?

1. Yes, the program is accurately described in the catalogs and publications of both campuses [SKIP TO Last Question]
2. No, there are inaccuracies in the catalog and/or other publications from SDSU
3. No, there are inaccuracies in the catalog and/or other publications from UCSB
4. No, there are inaccuracies in the catalog and/or publications of both campuses
5. No Opinion [SKIP TO Last Question]

[IF Q12a = 2,3,4]

19b. If the program is not accurately described, what is inaccurate? If any of your comments apply to just one campus, either SDSU or UCSB, please be sure to specify this in your response.

20. Please use the space below for any additional comments you consider appropriate regarding the UCSB-SDSU Joint Doctoral Program in Geography:

Section 8

Self-Assessment

Joint Doctoral Program

Introduction

This self study document describes the structure and functioning of the joint doctoral program (JDP) in Geography offered by San Diego State University (SDSU) and University of California Santa Barbara (UCSB). The document is a key component of the program review sanctioned by UCSB Graduate Division that is being conducted in the 2011-12 academic year. The period of emphasis for the review is Fall 2002 through Spring 2011. The self study document was developed and approved by both partnering departments. While the program has been reviewed three times (1996, 2002 and 2010) as an element of SDSU Geography departmental reviews, this is the first UCSB sanctioned review and the first review to solely focus on the JDP.

History and Organization

Established in the fall of 1991, the doctoral program is administered jointly by the Departments of Geography at SDSU and UCSB. The program is overseen by the Vice President of Graduate and Research Affairs and the Graduate Council at SDSU, and the Dean of Graduate Division and Graduate Council at UCSB.

When the program was established, the partnering universities agreed on general guidelines of operation and several resource-related matters. Students must be in residence at both institutions for the equivalent of at least one academic year. In almost all cases, students attend SDSU for most of their time in the program and spend one academic year in residence at UCSB. Doctoral committees are composed of two tenured or tenure-track (T/TT) faculty members from each department, including Affiliated Faculty (0% appointments) at UCSB. These committees oversee written and oral comprehensive examinations, evaluate dissertation proposals, and provide judgments at dissertation defenses. In a few cases, until recently, exceptions have been granted that allow a JDP student to have only one UCSB Geography committee member, with a second from an appropriate UCSB department other than Geography. Faculty from both departments have generally agreed that it would better serve the diversity of interests amongst SDSU students if they were able to take advantage of appropriate UCSB faculty outside of UCSB Geography and have considered a change in the program, requiring only one member from Geography, to be desirable. However, UCSB Graduate Division recently determined that this was a violation of existing policy for doctoral committees. Given limitations in the size and constitution of the UCSB department, we intend to apply formally for a modification of the rules in order to allow JDP committees to have only one member from UCSB Geography faculty, including Affiliates.

Most funding resources have come from SDSU since the program was established. Funding for a junior-level UCSB faculty member has been maintained by SDSU, but at a level commensurate with a full FTE for an Assistant Professor II at UCSB in 1991, equal to \$38,910. The intention was for this UCSB faculty member (originally Professor James Proctor, who has since left UCSB) to administer the JDP at UCSB and for the position to help compensate for the added workload associated with the JDP. These funds are currently provided by the Dean of the College of Arts & Letters at SDSU to the Dean of College of Arts and Sciences at UCSB and distributed to the department. No UCSB faculty member has been specifically linked to these

funds since the departure of Hallie Eakin in 2008 and the primary responsibility for administering the program has been held by the Graduate Assistant Advisor at UCSB since then.

At the inception of the JDP, the SDSU faculty made a concerted effort to allocate the bulk of JDP funding provided by SDSU into student assistance categories. SDSU Graduate Affairs has covered registration fees and provided out-of-state tuition waivers for all fully-funded students, which have been at least 95% of those who have enrolled in the program. Until ten years ago, SDSU Graduate Affairs covered the UC tuition fee differential for international students, but SDSU Geography has covered those costs for the past seven years. Since 1991, SDSU College of Arts & Letters has provided Teaching Associateship stipends and full health benefits for all funded doctoral students. This includes the year that JDP students are at UCSB. The intent has been that JDP students could serve as research or teaching assistants in support of UCSB faculty while they were in residence at UCSB. In fact, students have only very rarely worked in this manner, and UCSB faculty have generally been unaware that such an arrangement was possible.

SDSU is the primary campus for the JDP, with students normally spending all but one year in residence there. In most cases, JDP students enroll and are in residence at UCSB during their second year in the program. The dissertation adviser is normally a member of the SDSU faculty. When the JDP was first established, the two departments agreed that incoming classes would be limited to approximately five new students each academic year. This restriction was relaxed about a decade ago, such that the number of applicants offered admission depends on the quality and fit of the applicant pools and on the funding situation each year. Each fall, between three and eight new JDP students have enrolled.

Current Context and Mission

The mission of the joint doctoral program is to provide training for advanced research and professional development in the field of Geography. The joint doctorate is unique in that it is the only doctoral program in Geography administered by two universities and as such, presents many advantages for the student. Because it entails two departments, students entering the program have access to a much larger and more academically diverse set of faculty than in perhaps any other geography program in the United States. For all students enrolled during the study period (2002-11), over 49 different T/TT faculty at the two universities served on dissertation committee's of JDP students. This gives students an opportunity to be exposed to more perspectives and approaches to geography than in most settings. The joint doctoral program provides the essential education, technical training, and creative experience necessary for professional activity, including college-level teaching.

The program has gradually increased in stature and operated fairly smoothly considering that two institutional bureaucracies are involved and must mesh to enable the program to function. Academic Analytics ranked the JDP seventh of all Geography doctoral programs in 2008 and again in 2009. The basis for the Academic Analytics ranking is primarily faculty accomplishment and productivity data, which were derived from participating faculty from both departments. A National Research Council (NRC) ranking released in 2010 and based on 2006 data for more general criteria, and measured only on SDSU faculty, ranked the program in the

range 16-35 for the R Ranking and 20-45 for the S Ranking, where the score ranges pertain to 5th and 95th percentiles. Scores based on faculty productivity measures mostly ranked very high while student support, welfare, and diversity measures were fairly low. We note that many of the data items associated with student welfare and support that are reported in the NRC ranking tables are incorrect, and we are not sure from where NRC obtained data for these items.

Program requirements, numbers of students admitted, and funding packages for students have changed very little since the program's inception. The number and quality of applicants have not changed substantially, though attrition rates have dropped substantially. The level of graduate placement in academic and non-academic research positions has been very high over the past decade.

The current program offers its students the best of two very strong Geography departments in geographically desirable settings. While the JDP enables SDSU faculty to participate in a doctoral program, those faculty members would certainly support the continuance of the JDP even if California law changed to enable SDSU to offer stand-alone doctoral programs. UCSB currently benefits from the JDP by expanding its academic sphere of influence and particularly through added student mentoring opportunities and research interactions in certain areas of human geography.

Institutional Contributions

Student Support

Nearly all of the students in the JDP are provided 50% time, academic year (10 month) appointments as Teaching Associates funded by SDSU, which includes the year that they are in residence at UCSB. These students may serve as classroom lecturers, laboratory assistants, and/or as research assistants, although as stated above, this has not been generally recognized by UCSB faculty and is something we intend to discuss further as part of this review. Graduate teaching associates receive an academic year salary of approximately \$15,900, along with medical, dental, and eye care benefits. With a recent change in policy, students entering without their master's degree completed receive a reduced salary of around \$14,700 and the salary of students when they advance to candidacy increases to \$17,100. The standard teaching associate salary rate has not increased in almost five years. In most years, the Department has provided up to \$500 annually in travel support to each doctoral student presenting a paper at a major conference, though this allocation has not been automatic during the last few years of austere budgets.

Incoming students are guaranteed a minimum of four years of support, assuming satisfactory work performance and progress in the program. Five-years of support is the norm and the maximum. During a given semester while at SDSU, approximately one-half of the students teach as lecturers (i.e., instructor of record) or provide instructional support for a lecture or laboratory course, while the others primarily have research assistant duties. Of those teaching, a majority of the students teach lower division introductory courses, with a few handling upper-division geographic techniques and systematic courses. Students who are not lecturing at SDSU are either

resident at UCSB and/or assist joint doctoral faculty with teaching and research duties, serve as laboratory assistants, and/or assist with instructionally-related research projects. While at SDSU, JDP students are provided with a desk in a two or three-person office with computer/internet access, and generally have had similar office and computer resources available at UCSB over the review period.

Current Program

Current Trends in Discipline

Geography in the US is a vibrant and energetic discipline encompassing the latest biophysical and social science, spatial technologies, social/critical studies, and humanities. The talents and skills of US geographers are sought after more today than ever before. The ways in which human societies create and transform their social and biophysical environments is a pressing concern. Global warming, global terrorism, global economic restructuring, and heightened geo-political competition between countries, along with rapid internal political, economic, and social changes within countries are important challenges facing society. We are increasingly aware of the impact of human-induced changes to climate, vegetation, oceans, and the physical landscape. Within cities, wealth and poverty reside cheek-by-jowl. The study of these and many other issues and concerns comes under the geographers' purview. Through the development of a variety of theories, methods, and technologies, geographers work comfortably at the scale of the entire planet, the region or community, the family, or the individual. Of late, the discipline has embraced a wide swathe of study that includes poverty, health, sustainability, globalization and economic restructuring, youth issues, and global climate change.

Geographic research at UCSB and SDSU exemplifies cutting-edge disciplinary trends. UCSB is well known as a center of innovation in geographic information science (GIScience), physical geography and earth sciences, behavioral geography, and spatial analytic methodologies. UCSB's Department of Geography is at the forefront in the development of technologies and infrastructures that allow geographic information to be found and accessed across distributed networks. Study of the earth system requires access to knowledge of dynamic processes that range from those that operate in the oceans and atmosphere, to migration processes that redistribute humans across the landscape, and to processes of land use change. Physical geography at UCSB includes specialists in all of the major processes that influence the earth system at human timescales.

Geography at SDSU also focuses on research at the forefront of GIScience, including web-based GIS, intelligent software agents for cartography and GIS, mobile GIS, environmental monitoring and management, and spatial decision support systems and visualization. Research on international population, health, and poverty issues is exemplified by a focus on the US-Mexican border, Latin America, Asia, and Africa. Public health research includes mapping techniques that bring together geostatistical approaches, as well as public health reasoning and epidemic modeling. Geography at SDSU includes cutting edge research on children, families, and communities, and is involved with global research on child labor, citizenship, and independent child migrants. It includes research agendas on urban poverty, public space, and urban preservation. Ecological and environmental policy research involves working in several different

countries, and incorporates the latest agent-based modeling and remote sensing as well as surveys and in-depth interviews. SDSU geographers are involved in research in over 21 countries.

Goals and Structure of the Program

There is no specified number of units beyond core courses required for the doctoral degree. Two common core courses are required at SDSU: Geography 700 (Seminar in Geographic Research Design) and Geography 701 (Seminar in Development of Geographic Thought). The JDP offers work leading to the PhD in the following systematic areas (Group A) with supporting development of skills in spatial techniques (Group B) as follows:

Systematic Areas - Group A

- Human Geography – Urban, Social, and Political Geography
- Environmental Geography – Society and Environment, Watershed/Ecosystems Analysis
- Physical Geography – Biogeography, Climatology, Hydrology, Landscape Ecology

Spatial Analytical Techniques - Group B

- * Spatial Quantitative and Qualitative Methods
- * Cartography and Internet Mapping
- * Geocomputation and Spatial Modeling
- * Geographic Information Systems (GIS)
- * Remote Sensing and Image Processing
- * Visualization and Visual Data Mining
- * Spatial Decision Support Systems and Participatory GIS

Each student's program is designed around at least one of the areas selected from Group A and at least one of the technique emphases selected from Group B. The main regional foci are California, Latin America, Mexico-U.S. borderlands, Africa, and Asia.

Recruitment and Admission

Recruitment of potential doctoral students is mostly conducted through notices and information on the SDSU website – Geography <http://geography.sdsu.edu/Programs/phd.html> and UCSB website -- Geography <http://www.geog.ucsb.edu/graduates/affiliated-programs/> and through e-mail communications. Approximately 10 years ago, SDSU produced fliers that emphasized the web site address and distributed them to most college Geography departments in the US. Also around this time, the SDSU JDP adviser participated in a minority graduate student recruiting session at UC San Diego. The SDSU adviser responds to numerous e-mail inquiries about the program and meets with and provides departmental tours to 5 to 15 prospective applicants each year. Individual faculty are encouraged to be proactive in recruiting strong potential applicants and frequently respond to inquiries from prospective applicants. A major rationale for the

provision of travel funds to enrolled JDP students for conference presentations is to provide visibility for the program to prospective doctoral students.

Applicants for admission to the doctoral program must meet the general requirements for admission to both universities. There are no rigid requirements for entrance to graduate study in the program, but a strong background in geography or a related field is essential. An undergraduate grade point average (GPA) of 3.25 or higher for the last 60 semester units taken (90 quarter units), and/or a graduate GPA of 3.50 or higher are required. A minimum combined GRE score of 1100 is expected on the verbal and quantitative sections of the test. Both verbal and quantitative scores should exceed the 50th percentile. A master's degree is a prerequisite, but in unusual circumstances, highly qualified candidates are admitted without the master's but are required to complete one through a "fast track" mechanism. Admission requires acceptance by the respective graduate deans and by both departments.

The application process is primarily administered by SDSU and applications must be received by SDSU no later than 01 February for admission for the following fall semester. A generic CSU application is submitted on-line. Official transcripts, Graduate Record Examination GRE scores, and TOEFL scores are submitted to SDSU Enrollment Services. A program specific application, unofficial copies of transcripts and GRE scores, curriculum vitae, and a statement of purpose are submitted to SDSU Geography.

Applications are initially reviewed by the SDSU PhD Committee, which subsequently makes recommendations for admission and funding. SDSU Geography faculty discuss and vote on applicants to be considered suitable for admission and funding. Application files for these applicants are forwarded to UCSB Geography for faculty review. UCSB faculty review files and notify the UCSB graduate advisor as to which admissible applicants they are willing to sponsor. Names of applicants having UCSB sponsors identified are forwarded to the SDSU adviser. Although two UCSB (and two SDSU) faculty are eventually required for each committee, only one sponsor at UCSB (and one at SDSU) is required at this initial stage of admission. Depending on the number of funding slots and admissible applicants with sponsors, the SDSU department chair and PhD adviser determine the number of initial offers to be made, and communicate with the PhD Committee to determine which specific applicants are offered admission. These applicants receive funding and unofficial admission offers by e-mail and postal letter, and are asked to communicate their acceptance or rejection of the offers by 01 April if possible, and no later than 15 April. Some applicants are deemed to be alternates and notified that they will receive an offer or denial letter at a later date. In the rare occurrence that the number of admitted applicants accepting offers is below the target (normally five or six enrollees), alternates are offered admission and funding as late as mid-April.

For the past ten admission cycles associated with the review period, the average number of applications is 26.5 (range of 13 to 37) and the average number of admitted applicants is 7 (range of 5 to 8), yielding an average acceptance rate of 27.8%. Of the admitted applicants, the annual average is 5.4 new enrollees, a 75.9% average take rate, with a range of 3 to 8. Approximately half of the applicants each year have international residence status. The average verbal GRE score for enrollees is 565 and quantitative score is 678, yielding an average total GRE score of 1243. The average undergraduate GPA for enrollees is 3.5 and the average master's degree GPA

is 3.8. Of the 5.4 new enrollees each year, on average, one is an international student, 3.3 received their master's degree from a California public university, and 2.6 from SDSU. The average of 5.4 new enrollees appears to be in balance with the number of available stipends and the desire by UCSB to maintain an average new enrollee rate of five to six students. While it would be desirable for the quantity and quality of the applicant pool to increase, for most years the number of highly qualified applicants with similar research interests to SDSU faculty is similar or only slightly more.

Student Performance Assessment

Individual JDP student performance has primarily been assessed by the committee chair in an *ad hoc* fashion, though a structured mentoring and tracking process is utilized. All first-year students complete an entrance survey during their first semester. The survey serves as the basis of the Diagnostic Interview that is held with a student, their SDSU interim advisor, and at least one other SDSU faculty member. Oral examinations and dissertation defenses provide opportunities for the dissertation committee to assess performance and provide feedback to students while they are enrolled in the program. The SDSU adviser monitors student progress and confers with the SDSU PhD Committee when progress is minimal or performance appears to be poor. Starting this past academic year and in response to requirements by SDSU Graduate Affairs, JDP students are required to submit annual progress reports at the end of spring semester, and committee chairs are required to provide their advisees with an annual summary. In the case of students who have advanced to candidacy, the annual report is submitted by the entire dissertation committee, though the chair is responsible for drafting the report.

In the nearly 20 year existence of the JDP, there have been few instances of poor student performance that have required intervention. The few instances pertained to students with substantial personal problems and/or an inability to complete dissertations after advancing to candidacy. There is no evidence that a JDP student has performed poorly or below the expectations of the faculty but still been granted a PhD.

Post-graduation performance has primarily been assessed by tracking type and institution of employment. As part of SDSU departmental review in 2002 and 2010, data were collected on early-career academic productivity rates for graduates of the program.

Academic Advising

Students in the JDP receive academic advice from their committee chairs and members, the SDSU doctoral adviser, and the UCSB graduate advisor. Other faculty at both institutions from a variety of departments may also provide advising for some students. An annual orientation meeting for all JDP students is conducted at SDSU at the beginning of each academic year, where general programmatic and procedural matters are discussed. A more extensive session is also conducted for newly enrolled students. In their first semester, first-year students are expected to complete the Diagnostic Interview with their SDSU sponsor (likely dissertation chair) and at least one other SDSU faculty member. The purpose of the "diagnostic" is to establish a program of study (with an emphasis on coursework for the first years of the program) and plan for any field work that may be required for the student's dissertation. The SDSU

doctoral adviser provides general advising on requirements for the program on an at-need basis. Most of the specific academic advice pertaining to examinations and dissertation research tends to be provided by the committee chair.

While at UCSB, joint doctoral students receive academic advising primarily from the UCSB geography department staff graduate advisor (for the past few years, this has been José Saleta) and from one or both of the UCSB faculty members on the student's committee. On rare occasion, they may contact the UCSB campus-wide Graduate Division.

Program Size, Graduation and Attrition Rates

Over the ten-year study period (including 2011-12) the average headcount in the JDP is 26.1 students, with a range of 21 to 30; the most recent five-year steady state is 29 students. Of these enrolled students, approximately 25 or 26 are fully funded by SDSU each year. Ten of the 54 new enrollees are/were international students.

Thirty-nine (39) students have graduated since the program's inception and 29 during the study period. Of the 100 students who enrolled in the program since inception, 28 have withdrawn, been terminated, or transferred to other doctoral programs when their adviser departed. During the early years of the program, the Department experienced a high degree of attrition, with 7 of the 12 students admitted during the first two years withdrawing – each for apparently different reasons. This problem has abated substantially, and retention now seems to be normal or even favorable for a doctoral program. Of the 47 students who have enrolled in the JDP within the review period, 3 were terminated after going AWOL more than once, 1 transferred to UCSB, 2 transferred to ASU with Serge Rey when he took a job there and 1 withdrew after one year for financial reasons. Twelve (12) of these students have graduated and 15 are ABD. The JDP currently has 33 active students, including 5 that are first-time enrollees in the Fall 2011 semester.

Average Time to Candidacy and Degree

The median time to graduation for the 25 graduates of the program since 2002 is 6 years and the average is 6.1 years as shown on page 5.12. A downward trend in time to graduation is evident. On average each year, 2.8 JDP students graduated during the study period with a range between 1 and 5. For the cohort who graduated during the study period and within eight years, the average graduate rate is 2.6 per year and the % graduated in eight years is 92%, as shown on pages 5.11 and 5.12.

Page 5.12 also shows that average time to advancement to candidacy for those JDP students who advanced since 2002 is 3.6 years, and on average each year 3.7 students advance to candidacy. The time to advancement for the past five years has been greater by almost one year than the first four years of the study period, even though the time to graduation has decreased in the latter five years. A bias in the time to advancement data may be associated with a time lag between the completion of the oral exam and dissertation proposal (final requirements for advancement to

candidacy) and the official recorded date; this lag results from the lengthy filing and approval process that involves both universities and may be increasing more recently with cuts in staffing.

Career Planning, Job Placement and Professional Accomplishments

As with academic advising, career planning and job placement assistance mostly occurs through discussion with committee chairs and members, and with the SDSU adviser. During AY 2010-11, student leaders and a few SDSU faculty (including the department chair) conducted a session on applying and interviewing for academic faculty positions. The plan is to make this a regular, annual event.

The first employment positions held by graduates of the JDP are listed on page 5.14. Of the 39 graduates of the program, 25 worked in university teaching and/or research positions (17 tenured or tenure track), 4 worked for government agencies, 5 in industry, and 2 as private consultants. In the review period, JDP graduates have been hired as assistant professors by several major Geography departments throughout the US, including: Clark University, Michigan State University, SDSU (City Planning), University of Delaware, University of Minnesota, and West Virginia University. Two of the graduates are deceased.

Accomplishments of current and graduated JDP students are based on self-reported data and are presented as average quantities per student in Table 1. Current students include all registered students who have been in the program for at least one full year. Graduated students data are divided between those who graduated prior to and since 2002.

On average, the 24 students currently in the program have authored two refereed publications, participated in over five conference presentations or posters, received 1.5 extramural grants or fellowships and nearly the same number of awards or scholarships from outside of SDSU, and participated professionally in at least two community and one international activities. Of course there is substantial variability in the number of accomplishments for each student.

Graduates of the JDP continue to be professionally active by publishing and presenting results from their doctoral studies, as documented in Table 1 (below). JDP students publish as sole authors and as co-authors with faculty and other students. Their publications appear in some of the top journals in the discipline. The average number of refereed publications for the 24 graduates of the program since 2002 is almost 6 per student, with almost 10 conference presentations. These publication and presentation averages are up substantially from those associated with 14 graduates of the program prior to 2002.

**Table 1 – Accomplishments of current and graduated joint doctoral students
(Self reported - - per student averages)**

Academic Class Grouping	Refereed Publications ¹	Conference Proceedings Papers	Conference Presentations ²	Grants & Fellowships ³	Awards & Scholarships ⁴	Community Related Academic Activity ⁵	International Related Academic Activity ⁶	Total Students
Current students ⁷	2.0	0.2	5.5	1.5	1.4	0.8	0.4	24
Graduates since 2002 ⁸	5.9	0.6	9.3	1.4	1.6	2.4	1.0	24
Graduates prior to 2002 ⁹	3.7	NR	5.9	0.9	0.9	NR	NR	14

- 1 – Includes any authorship; includes books, book chapters, journals articles, book reviews, and encyclopedia articles
- 2 -- Includes any authorship; oral presentations or posters
- 3 – Extramural funded grants or fellowships (normally federal through peer-reviewed process)
- 4 -- Non-university and non-departmental awards and scholarships received through competitions
- 5 – Academic-based participation in community activities (normally San Diego region)
- 6 – Academic-based participation in international activities (e.g., research exchanges, field work or workshops in foreign countries)
- 7 – Students currently active in the JDP for at least one year; data collected in Fall 2010
- 8 – Accomplishments achieving during or stemming from (e.g., dissertation-related outcomes) doctoral studies; data collected in Fall 2010
- 9 – Based on surveys conducted in 2002; non-reported (NR) categories were not surveyed then; Grants, Fellowships, awards and scholarships were not separated

Ethnic/Gender Diversity

Of the 45 students who have entered the program since Fall 2002, 15 (33%) are female, 3 are Hispanic, and 1 is also African-American. Nine (20%) of the doctoral students admitted during this period are from foreign countries, 3 from China, 2 from Korea, and 1 each from Germany, Japan, Peru, and Poland. All 9 of these students are/were fully funded and are/were not able to establish California residency; this substantially increases the tuition costs at SDSU and particularly UCSB.

Prospective and actual applicants who are female and/or who identify themselves as a minority student are actively encouraged to apply to the JDP. Admission and funding decisions are based on academic qualifications, but greater emphasis can be placed on particular academic accomplishments, particularly when factoring in disadvantaged socio-economic backgrounds, in attempt to enroll students from underrepresented groups. The SDSU department made a concerted effort during admissions for AY 2010-11 to increase racial and ethnic diversity in the JDP. Approximately eight years ago, the SDSU JDP adviser participated in a minority graduate student recruiting session at UC San Diego. Only a single member of an underrepresented minority group visited our table, so this mode of recruiting was deemed inefficient.

Student Governance

Each academic year, doctoral students elect a representative who attends department meetings. The PhD representative calls periodic (two or three per semester at irregular intervals) meetings of the doctoral students and occasionally surveys or forwards communications to these students

by e-mail. The representative reports student initiatives and issues to faculty at department meetings, and communicates faculty feedback to PhD student constituents.

In the last year or two, JDP students have been particularly proactive in expanding their role in the governance of the department and initiating improvements in resources and provision of training in areas such as teaching effectiveness and career preparation. The PhD representative has organized meetings between doctoral students and faculty committees to discuss and provide solutions for computational matters and to expand teacher training activities provided to JDP students. The students convene a Graduate Group that organizes workshops on a variety of aspects of teaching and professional development. The group elects a 'lead TA' who is responsible for monitoring and helping students who are teaching classes. In addition, the Graduate Group serves as a liaison with master's and undergraduate students.

While at UCSB, joint doctoral students are not required to serve on committees or otherwise participate in department governance or service activities (neither are doctoral students in the regular geography program, although several do). Historically, joint doctoral students did not serve in this way. However, for just the last couple years, students have been invited to participate in service activities at UCSB. During 2010-11, one joint doctoral student served on the campus Graduate Student Association committee, one was on the department Computing committee, one was on the department Sustainability committee, and two of these students also served on the department Coffee/Snacks committee. During 2009-10, one student was on the department AAG Organizing Team, was a representative at faculty meetings, and was on the department Visibility/Outreach/Diversity/Development committee; a second was on the department Sustainability committee, and a third was on the department Visibility/Outreach/Diversity/Development committee.

Faculty Engagement

All of the SDSU T/TT and 17 UCSB Geography or Affiliate faculty have served on dissertation committees of JDP students, and all but two SDSU faculty served as dissertation chair/major professor during the review period. Listings of faculty service on dissertation committees are found on page 4.3 (SDSU) and page 4.69 (UCSB). The number of committees chaired by SDSU faculty ranges from 0 to 7.5 (0.5 for co-chairing). The number of times that a faculty member has served on JDP student committees in any capacity during the review period varies between 1 and 13 for both SDSU and UCSB faculties. Four UCSB faculty members have served as the primary sponsor for over 60% of the JDP students.

Grant and Contract Support

Most members of both faculties actively pursue and secure extramural funds in support of research, training, and the transfer of geographic knowledge and technologies to public and private sector entities. During the eight-year period since the last Departmental review, dozens of new faculty grants and contracts have been obtained with a total value exceeding \$10.7 million (see Figure 1 below). Funding sources have included (among others) NSF, NIH, NASA, NOAA, EPA, DHS, US Forest Service, San Diego Zoological Society, World Wildlife Fund, San Diego County Parks and Recreation, Sweetwater Union High School District, and others. In addition to

funding faculty research and monies for research assistantships, these grants and contracts are used to pay salaries for one of the Center for Earth Systems Analysis Research (CESAR) technical staff (and augmenting other technical and administrative coordinator salaries) and the salary of the managing director of Center for Interdisciplinary Studies of Youth and Space (ISYS). The Departmental Research and Teaching Centers are primarily funded through extramural monies, although some funds are available for equipment and software through the University.

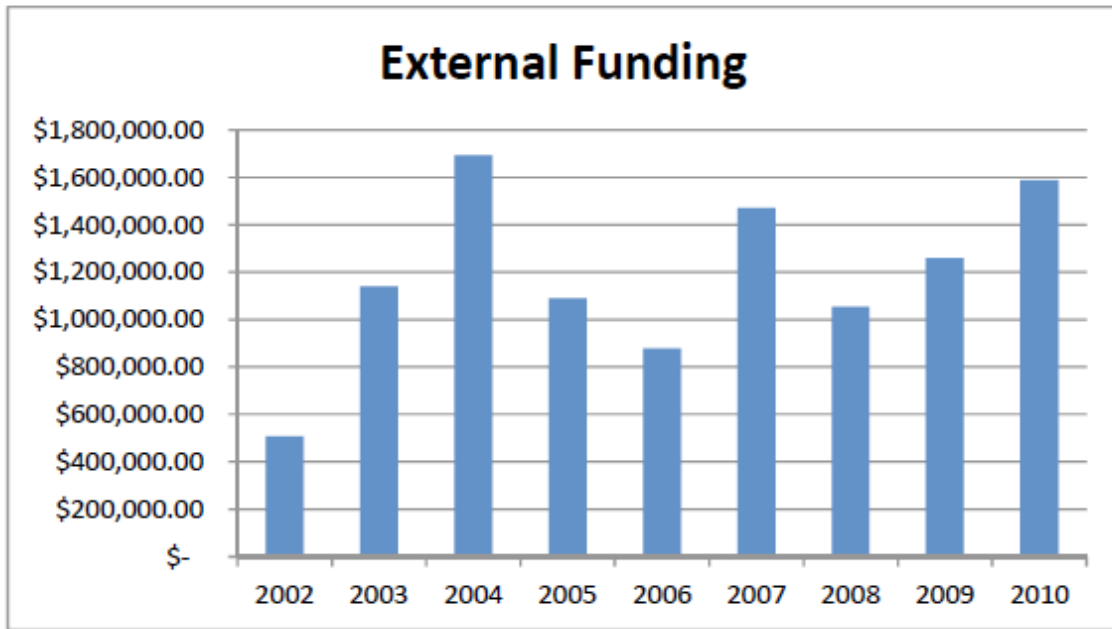


Figure 1. SDSU Geography faculty extramural grants and contract funding from 2002 to 2010.

Direction of the Program

The research strengths or emphases of the JDP in terms of doctoral student involvement and faculty mentoring are and will likely continue to be characterized as urban and social geography, watershed science and landscape ecology, human-environment relationships, and geographic information science in the most general sense. These mostly mirror the core research areas of the SDSU faculty, but are in most cases complimentary to the faculty expertise and graduate student interests at UCSB. The future direction of the program is likely an expansion on these strengths.

Within the urban and social geography emphasis of the program are two sub-elements that are mostly defined by their methodological approaches to urban geographic studies. A more qualitative and social theoretical cadre of students work mostly on social and cultural aspects of the discipline. SDSU has hired two (Fernando Bosco and Kate Swanson) and lost one (Larry Ford) faculty member during the review period who along with three or four others are the primary faculty who work in this area. None of the UCSB faculty is substantially trained in this area, which presents a mismatch between student and faculty interests. A somewhat smaller group of students primarily apply quantitative or mixed-method approaches and is more focused

on demographic, health, and economic aspects of urban geography. SDSU has hired one faculty (Pascale Marcelli) who supports this area (as well as the more qualitative social area) and lost one faculty (Serge Rey). Students working in quantitative human geography are supported by a large number UCSB faculty, including David Lopez-Carr who was hired during the review period, though the passing of Reginald Golledge was a substantial loss in this area. Future SDSU hires may include an endowed chair in support of children's geography and an assistant professor position pertaining to health geography.

Doctoral students working on more biophysical or earth system science topics have primarily emphasized watershed science and landscape ecology. These students are also well versed in techniques of GIScience. Within watershed science, the primary emphasis has been modeling of surface hydrological processes. One SDSU faculty (Trent Biggs) was hired in this area, which essentially was a replacement of Christina Tague, who now supports the JDP as a UCSB faculty member. Doctoral students working on landscape ecological studies have emphasized biogeographic and habitat relationships of southern California ecosystems, though a number of students working in human-environment and GIScience areas also apply concepts of landscape ecology. Li An was hired at SDSU to support this area and effectively replaced Janet Franklin, who transferred to SDSU Ecology and then Arizona State University. UCSB has hired several new faculty (Bookhagen, King, McFadden, and Still) who support this area, while SDSU has not prioritized a near-term hire in this area.

Human-environment relations is beginning to emerge as an emphasis in the JDP and could well be the area of most substantial growth in terms of numbers of students and quality of scholarship in the next ten years. Students in this area are working on policy and environment, and human social dynamic studies, particularly in international settings (e.g., China, Ecuador, and Nepal). The hiring of Anne-Marie Debbané, Kathleen Farley, and Arielle Levine at SDSU, and David Lopez-Carr at UCSB has substantially enhanced this area, but the loss of Hallie Eakin at UCSB hurt this area. Potential future hires at SDSU may occur in the area of hazards geography and human dimensions of environmental change.

GIScience has and will likely continue to be one of, if not the primary core area of strength of the JDP, because of the combined strengths of the two departments. Several doctoral students have or are working on advanced methodological and technical developments within GIScience, and a majority of doctoral students have substantial training in this area. SDSU faculty hires in GIScience within the review period include George Christakos, Piotr Jankowski, and André Skupin. Arthur Getis retired but continues to participate on committees, and Serge Rey transferred to ASU. A priority hire for SDSU is a geo-computational specialist. UCSB hired Krzysztof Janowicz in this area, after losing Sarah Fabrikant and Martin Raubal.

PhD Student Satisfaction – On-Line Survey

A comprehensive on-line survey was administered to current JDP students in Summer 2011. This survey had to be newly designed, as the existing student surveys for program review at UCSB, for instance, were not suitable for evaluating a joint program. Summaries of both quantitative and qualitative survey responses are found in Section 7. Of the 28 students with valid e-mail

addresses that received surveys, 26 (93%) completed them. A majority of the respondents had completed four semesters or less, with almost a third having completed just their first year (and thus had not been in residence at UCSB). The students were surveyed on the following topics: (1) background and academic experience at SDSU and UCSB, (2) teaching experience, (3) instruction, (4) research or creative activities, (5) advising, (6) curriculum, (7) facilities and equipment, (8) financial assistance, (9) academic climate, (10) morale, (11) general academic quality, (12) program selection factors, and (13) employment preparation. In addition, open-ended, qualitative responses were solicited for diversity, strengths, weaknesses, and other comments.

Of the approximately 75 possible quantitative survey items (which include dual responses for SDSU and UCSB for most items), the majority of responses were Strongly or Very Satisfied. However, responses to the UCSB part of the program were mostly less positive. This is to be expected given that the majority of JDP students' time is spent at SDSU, and the primary focus of UCSB faculty is on their standalone doctoral program. But it may also reflect some systemic issues that could be addressed. There were lower percentages of Strongly or Very Satisfied responses to several items, especially at UCSB.

In conjunction with some themes that appear more than once in the open-ended responses, the ERC should consider these as potential problem areas to be examined further. UCSB faculty might not be as engaged and involved in the JDP and its students as they might be, keeping in mind that some UCSB faculty work in areas rarely or never involved in joint program committees (e.g., there is no oceanography in the SDSU program). Is there anything about the experience of JDP students at UCSB, including attitudes of the faculty, that systematically leads the students to feel less integrated into the academic community at UCSB? JDP students also appear to experience difficulties in moving to Santa Barbara for one year, including with living arrangements, etc. Finally, there is a major difference in the academic focus of the two departments in that SDSU has a distinct specialization in areas of human geography that UCSB does not (which was a major impetus for UCSB to agree to participate in the JDP). This is variously called (with varying degrees of aptness) cultural geography, qualitative methods, critical theory, social theory, etc. UCSB does have human geography (although it is not its greatest strength) but more in the style of what might be called scientific, quantitative, positivistic, etc., approaches. These focus areas or approaches are not accidental but reflect intentional choices made by each department over the years. This is clearly a significant problem for students who focus on SDSU-specialized approaches; among other things, it has made putting a committee together difficult in several cases.

At SDSU, potential problems are suggested in areas primarily pertaining to adequacy of facilities and equipment. The diversity and availability of course offerings at both institutions may also be a problem area. The items receiving the highest number of Strongly Satisfied responses pertained to faculty advising, mentoring and availability (particularly at SDSU), and with equity and availability of financial support. Only one item, preparation for teaching, received more than two responses of Not at All Satisfied (it received three). In general, survey responses suggest that the most prevalent strength of the program is its joint nature and the ability to interact with and be mentored by faculty from both institutions; at the same time, the most prevalent criticisms or

recommendations found in student responses pertain to administrative and bureaucratic issues pertaining to the joint (dual institutional) nature of the program.

PhD Student Morale – Open Forum

Doctoral students met in Fall 2010 with their representative (at the time), Zia Salim, to discuss the state of the JDP as part of the preparation for the SDSU Geography departmental review in AY 2010/11. Of the 28 active PhD students, 23 students contributed their thoughts about student morale and the processes and outcomes of the program. Two meetings were held for students in residence at SDSU to discuss these topics, and email submissions allowed students not in residence to contribute to the comments summarized here.

Students were generally happy in the program. Descriptors included energetic, motivated, and supportive faculty who are willing to mentor students, helpful support staff, a supportive student community, the many benefits of the year at UCSB, and an overall “awesome” department, and a positive atmosphere. Two other sets of comments discussed by some (but not all) students highlighted areas of potential improvement:

UCSB: The UCSB year has many benefits, but can be disruptive in some regards. Some students stated that UCSB could do a better job in accommodating human geographers who work in the areas of cultural geography, critical theory, and qualitative methods and qualitative geographers. Others mentioned the need for involvement of the UCSB faculty in the early stages of the student’s program of study and (in some cases) more active involvement during the year in Santa Barbara.

PhD teaching: While it is understood that PhD students begin the program as teaching associates, and while students were aware of the importance of teaching, many students described the tradeoff involved when teaching affects other outcomes (research, publications, time to completion). Recently some PhD students have been teaching for up to five semesters. Sometimes students teach 600-level classes but are not recognized as instructors of record. Also, some students stated that there is perceived inconsistency in terms of who teaches, who doesn’t, who is able to “get out” of teaching, and how class assignments are determined.

Additionally, some areas (specific to SDSU) that were discussed by multiple students included:

Building Community: Students noted that it is nice to have all PhD offices in close proximity along one main hallway in Storm Hall. Having a common reading/social space that would be “food friendly” and a place for graduate students to meet, network, and share information across cohort or sub-discipline lines was suggested.

Travel Funding: The importance of securing travel funds for conference attendance was mentioned, since that is a factor that promotes the image of the department and can lay the foundation for student publications and other collaborations. It was mentioned that students have organized workshops through the College of Extended Studies to proactively help with this situation, and the department has been generous in allowing access to Shared Visions funds this year.

Computing: Students are appreciative of the fact that at least one computer is in each office; however, not all computers have efficient functionality with basic applications (word processing, etc.). Also, the inability to run higher functions or sophisticated software was mentioned as a factor impacting productivity.

Doctoral Program Adviser

The Department provides partial (20%) 12-month salary for the SDSU doctoral program adviser, an elected position (every three years since 2007) that has been held by Professor Stow since Fall 1998. The adviser handles recruitment and admissions, works with students to establish their programs of studies and examinations, is the main JDP point of contact with SDSU Graduate Affairs and the UCSB Geography graduate advisor, and is the chair of the SDSU Geography PhD committee. In addition, the adviser meets regularly with the body of joint doctoral students in residence at SDSU, assists joint doctoral students with their residency at UCSB, negotiates tuition and fee waivers with the Graduate and Research Division, and assists international students with U.S. residency matters. A large portion of the adviser's time on the JDP is spent communicating with prospective applicants, particularly those outside the United States, or solving administrative issues that frequently arise because of the dual university bureaucracies that are involved.

Resource Needs

From the inception of the Geography JDP, the majority of resources provided (primarily by SDSU) have gone towards student support in the form of stipends/health benefits and fee/tuition waivers, rather than towards faculty lines or other non-student support. The amount of the Teaching Associateship stipend has not increased in almost five years and is relatively low in light of the high cost of living in San Diego and Santa Barbara. An increase in the stipend amount from \$15,900 to at least \$18,000 is warranted.

SDSU Graduate Affairs has been very supportive of the Geography JDP by providing fee and registration support that has mostly enabled us to meet our promise to cover registration and tuition fees for all funded students, with the exception of the out-of-state tuition for international (non-resident) students while at UCSB. The Department now covers the approximately \$20,000 non-resident tuition costs for any international students at UCSB, which has required us to limit the number of admission and funding offers to international applicants. In the past few years, the Graduate Affairs allocation for registration fee coverage for all funded students has been less than the actual cost to the Department. We have utilized Shared Visions and grants and contracts funds to cover student fee obligations that are not covered by SDSU Graduate Affairs, but with rising fees and other costs and our Shared Visions funds mostly encumbered each year by entitled items, have reached a point where we may not be able to meet our obligation. We are aware and being proactive about building more student support funds into our proposals for extramural research funding.

Another potential source of student support funds is from donors, either through SDSU College of Arts & Letters development efforts and/or the Campanile Capital Campaign. In addition to

stipend and fee support, a “big ticket” item that could be a useful and attractive resource for the Geography JDP is the purchase of a house or condominium in Santa Barbara that could be used by JDP students during their residency at UCSB. Rental housing in Santa Barbara is very expensive. Providing low- to no-cost housing for our JDP students would be one means for reducing the impact of the high cost of living and be an attractive inducement for prospective students to apply to the program and accept our offer.

At UCSB, a major issue involves the financial support provided by SDSU to support the program. Currently, funding from SDSU is restricted to the original \$38,910 supplied by SDSU to support 1 FTE for an Assistant Professor II at the 1991 UCSB pay scale. Due to ambiguities in the original agreement, this amount has never increased to keep pace with inflationary salaries at UCSB. Thus, if a similar FTE were to be filled at UCSB today, \$38,910 would represent only part of the cost of the FTE. UCSB would greatly benefit if the financial support for this position kept pace with salaries at UCSB, increasing annually or at least being reset periodically to match the equivalent of an Assistant Professor II. In addition, the manner in which the funds are dispersed, in which the funds are first distributed to the Dean, then redistributed to the department is not ideal. Given that the original agreement involved the support of a full FTE, this arrangement made sense, but in the event that the FTE is not filled, the question arises regarding how the funds are dispersed to the department. To address this issue, one major revision UCSB would seek is to have the funds dispersed directly to the department, not through the Dean. For example, it may be possible to support a specific staff FTE who would take primary responsibility in administering the program at UCSB.

Finally, a desirable change would be to clarify the potential role of JDP students at UCSB. The original intent was for JDP students to primarily support and collaborate with their UCSB sponsor on research projects that provided mutual academic benefits (e.g., publications) for the student and their sponsor. Currently UCSB has viewed JDP students more as students supported by fellowships, while SDSU has viewed them as potential contributors to the teaching and research mission at UCSB. These disparate views should be reconciled.

Supplementary Materials

ADDITIONAL CONTENTS ON COMPACT DISC

▶ **Supplementary Materials**

San Diego State University
Graduate Student Handbook.....

University of California, Santa Barbara
Graduate Student Handbook.....

▶ **External Review Committee CVs**

▶ **Review Procedures**

Graduate Student Handbooks

San Diego State University

Eighth Edition

THE GEOGRAPHY DOCTORAL STUDENT'S HANDBOOK

A Survival Guide and Informational Treasure Trove

Congratulations and welcome! You've been admitted into the **San Diego State University/University of California, Santa Barbara joint doctoral program in Geography**. SO, NOW WHAT DO YOU DO? This handbook is an attempt to provide you with the information, both general and nitty-gritty, that you will need to work your way through Geography's doctoral program. It has been put together with the help of students currently in the program, as well as by our past Doctoral Adviser (Ernie Griffin) and past Doctoral Program Secretary (Yumiko Tsuneyoshi). We've organized this document in roughly chronological order and have tried to address the multitudinous questions that might arise during the four or so years that you spend in the program. Despite our best intentions, there are undoubtedly omissions, errors, or other goof ups. If so, please let us know so that you can get an answer and so that we can improve this glorious opus for the future generations.

HOW DID I GET ADMITTED?

The **selection criteria** for this program are pretty straight forward. The initial evaluation was performed by the SDSU's Doctoral Program Committee. They reviewed your academic record and GRE performance and ranked them in relation to the others who applied with you. Simultaneously, the Committee evaluated the letters sent by your referees and carefully studied your statement of purpose. We want to be sure that your academic interests fit those of our faculty as well as our colleagues at UCSB. The files of all of the applicants were then made available for review to the entire SDSU faculty. If a faculty member was interested in "sponsoring" an applicant, they let the Committee know. The Doctoral Program Committee then submitted its recommendations to the SDSU faculty who ranked the applicant pool from one to "n." We then selected a group of candidates (normally from five to eight individuals) to send to UCSB for their consideration. The applicants' files are reviewed by the UCSB faculty and if someone there was willing to "sponsor" one of the applicants, that individual could be admitted to the joint program. From the approved candidates, five to eight are admitted into the program. Given that currently we receive from 25 to 45 completed applications per year, there is a good deal of competition involved in the selection process. We hope that we made good choices and that, as a result, you can be successful here.

All of these steps take between three to five weeks to complete. Once UCSB informs us of their decisions, usually by mid-March, we immediately contact the successful applicants (normally by phone and by letter) and make them an offer we hope they can't (or won't) refuse. If you're reading this Handbook, it means you accepted!

WHAT DOES THE FINANCIAL OFFER I ACCEPTED MEAN?

Your **financial support** will come from SDSU, including while you are at UCSB (with the exception of financial aid which may be administered through UCSB during your year at UCSB). It has been the Department's policy to support its doctoral students for at least four and no more than five years, assuming that you make normal progress towards your degree and discharge your associateship responsibilities adequately. Additionally, our Ph.D. students' instructional fees/tuition are paid by SDSU. The miscellaneous fees (currently \$553/semester in Fall 2011) must be paid by the student effective with the Fall 2010 incoming class. All of our doctoral students should apply for grants or fellowships (e.g., NSF Dissertation Improvement Grants, Fulbright Fellowships) to assist in supporting their studies, especially if foreign field work or a fifth year is an element of your program. Obviously, grants and fellowships are financially beneficial for those who receive them. More importantly, win or lose, writing the proposals necessary for grants or fellowships competitions provides you with a valuable experience which will prove useful in your future professional endeavors.

To this point, 95% of our joint doctoral students have been given appointments as Teaching Associates and such appointments currently provide full health care, dental, and vision insurance as well as several other benefits. There are strict deadlines for signing up for benefits, so read your benefit materials carefully. When you sign in at HR, they will give you information on the benefits orientation. Please plan on attending this. When you sign up for your various plans, talk to other students and check out the availability of the providers in, not only San Diego, but in Santa Barbara as well. UCSB requires that you have a health care provider within 25 miles. If not, you will be required to pay more than \$800 per quarter for their health coverage. Since open enrollment is only once a year, check into your plan prior to signing up, as SDSU will not cover the UCSB health fee. These funding relationships will remain in place barring some type of financial calamity beyond our control or significant changes in University policy affecting benefits. Just because you are titled a Teaching Associate does not mean that you will have teaching responsibilities during a given semester.

WHAT HAPPENS BETWEEN THE TIME I'M ACCEPTED AND WHEN I ENROLL?

You might want to contact your SDSU faculty sponsors to see if they have any suggestions for readings that you could do during the summer to get up to speed or a head start in specific areas. Many new doctoral students find it helpful to visit San Diego in the spring or summer to see the Department, meet some faculty and other students, and scope-out the housing market. If you want to visit, just call or e-mail the Doctoral Adviser, Douglas Stow (stow@sdsu.edu; 619/594-5498) and tell us when you're coming so that we can arrange to make folks available to you.

We try to give doctoral students an opportunity to teach and in most cases, some teaching duties will be required. During their tenure in the program, we encourage all doctoral students to teach at least one course so as to gain valuable teaching experience. Such

experience allows the student to assess their interest and aptitude for college-level teaching and is necessary for attaining academic teaching positions after graduation.

If you are given a teaching assignment for the Fall Semester, you can use part of the summer to review texts, develop a syllabus, and do the other things you need to do to get a class organized.

All doctoral students are required to complete the Teaching College Geography course that the Department offers each fall semester. We highly recommend that you take this course your first year. The course is informal and no credits are assigned. It only meets once a week for the first six weeks of the fall semester, with the exception of two meetings during the week before classes start.

You should receive a **Notice of Admission**, signed by the Doctoral Program Coordinators and Graduate Deans of both SDSU and UCSB. Be sure to sign and return it as soon as possible.

In August, you will receive an **official contract** (Statement of Terms and Conditions) from the Dean of the College of Arts and Letters at SDSU appointing you as a Teaching Associate. It will state your annual salary and duties. You need to sign this document and return the original to the Dean's Office and a copy to Lilia Ortiz, Geography Administrative Assistant, Department of Geography, San Diego State University, San Diego, CA 92182-4493. This will make you a real, live Teaching Associate! If that isn't enough, just remember that without signing this document you cannot begin to receive your monthly stipends.

SDSU uses a web based registration system. **Fall registration** begins in mid-July. No hard copies of the class schedule are available; they are only available on line. Be sure to check with the Dr. Stow, Lilia or Patti O'Leary before registering. First semester Ph.D. students usually take 6 units of credit. Your fees (for 6 units) will be paid by the University, so don't send any money! If you don't register early, don't worry too much--you can register when you arrive on campus. One of the courses you should take during the first semester is Geography 701 -- Seminar in Development of Geographic Thought, unless you already completed it as a MA/MS student at SDSU, or if you completed a similar course during your master's studies at a different university. Either way, you must receive permission from the Doctoral Adviser to waive Geography 701.

By the way, you'll need to prove that you have **had an measles/mumps/rubella (MMR) vaccination** prior to the end of your first semester at SDSU. Bring your inoculation records, show proof of immunity or, as an extra added bonus, you can get free vaccinations at Student Health Services on campus.

The Geography graduate program at SDSU is pretty large. We normally support 25 or more doctoral associates and another 25 - 35 master's-level graduate assistants. Additionally, there are another 15 - 25 or so full-time graduate students here. As a result, our grad students come in all shapes and sizes, represent a wide range of ages and both sexes, and are married, single, attached, unattached, with kids and without. They have discovered an array of housing accommodations to meet their varied situations. In short, your new colleagues are a

great source of **information on housing** and other matters of critical interest to you as a newcomer to the Department and, perhaps, the San Diego community. Moreover, many of our current grad students would be glad to share their knowledge with you, having recently experienced just what you'll be going through. Virtually all of them have e-mail access and telephone numbers in the Department where you can communicate with them if you so desire. Just ask and we'll provide you with the names and numbers of individuals willing to talk. There is a graduate student-oriented apartment complex that is near campus and run by the university but no family student housing. Here are a few pertinent web sites pertaining to housing.

- SDSU Housing Office <http://www.sa.sdsu.edu/hrlo/index.html>
- SDSU International Students Office <http://www.sa.sdsu.edu/isc/iscindex.html>
- Web site with source for other web sites for San Diego housing
<http://www.sandiegohousing.com/>
- San Diego Union Tribune newspaper ads for rental housing
<http://www.uniontrib.com/>
- San Diego Reader newspaper ads for rental housing <http://www.sdreader.com/>

OKAY, I'VE ARRIVED AT THE DEPARTMENT. WHAT DO I DO?

You're in trouble now, but Patti will help get you straightened out! The first thing to do when you arrive on campus is to go to the Department of Geography which is located on the third floor of Storm Hall on the west side of campus. There, you should find your way to Patti's office (SH 323). For most of our Ph.D. students, Patti O'Leary, the Department Coordinator and Lilia Ortiz, Geography Graduate Coordinator, are the most important people on campus. They are extremely knowledgeable and a gold mine of information. Besides, Patti makes sure you get paid on time!

There's quite a bit of paperwork involved in "**signing in**" to the University. First, Patti will give each of you a packet with several forms and a letter designating "sign-in" times. Once you complete these forms, you should go to the University's Human Resources Office on the 4th Floor of the Extended Studies Building during the designated times to do so. You have to present Human Resources with a Social Security card and a government-issued picture identification (driver's license, passport, etc.). If you don't have a SS card, you'll have to get one. The closest Social Security office is at 7373 University Ave, Suite 101 (about 5 miles from campus). You can take your SS card application receipt to Personnel to get the process started, but you will not get paid until you submit the social security card. When your SS card arrives, you'll need to take it to Personnel immediately. If you don't do these things, the University won't pay you. The University no longer uses Social Security numbers as the official ID number. This has been replaced by a "**Red ID**" number that will be listed on your student ID card (see below).

You'll also have to fill out W-4 forms and other neat stuff (like signing a loyalty oath). While at Personnel you can pick up information about the various insurance programs for which you qualify. You will need to decide which programs you want and sign up for them with

Personnel. Assuming you properly sign-in in a timely manner, your first paycheck will arrive on **October 1 per CSU policy**. You will continue to be paid through September 1 of the following year. Also, your health insurance is not effective until October 1, so try not to get sick until then. **Payday** is generally the last day of the month (you will receive a payday schedule) and Lilia normally has the checks ready for dispersal by about 4:00 PM. The University provides direct deposit of payroll checks if you wish it.

Without a **Red ID Card**, you can't get much done on campus. As a Teaching Associate, you'll be given a "human resources memo" when you sign in. You need to take this and skedaddle over to the Photo ID Center, which is currently located in West Commons across from Starbucks (during construction of the new Aztec Center, so this is subject to change).. They will issue you a shiny, new plastic photo ID with your Red ID number. This ID also is used as a swipe card for entrance to our labs and a library card which allows you faculty borrowing privileges. **Don't throw away your "memo,"** as you will need it for keys and a faculty parking permit.

If you are an **international student**, you should check in with the International Student Office. It is located in the International Student Center on the far west side of campus (across the parking lot from Storm Hall at the corner of 55th and Aztec Circle Drive). They can help you with immigration questions and registration procedures. For visa information contact Heather Shapazian (hshapazi@mail.sdsu.edu). You will need to provide them with proof of your acceptance into the Ph.D. program, along with evidence that your fees and health care are covered. Also, you may have to purchase a rider for your health insurance (currently about \$15).

You will be assigned an **office** when you meet with Patti. We usually kick departing grad students out of their offices by August 15, so if you arrive after that date you should be able to move right into your new digs. There will be a computer and telephone in your office, which you will share with your office mate(s). There are two types of e-mail accounts. The Rohan e-mail account which you get via Web Portal (see the department computer policy guide for specific instructions) and the employee "mail" account. You can obtain an **e-mail account** by going to the TNS help desk in Love Library. The entrance is in the back of Love Library between the Library and the Open Air Theater. If you have any questions, you can contact Dave McKinsey (Ext. 48042 or mckinsey@mail.sdsu.edu) who is the Technical Manager of the Center for Earth Systems Analysis Research (CESAR), the Department's image processing/GIS facility. He will give you a one-page set of instructions for establishing an e-mail account.

After getting an office, you'll need **keys**. Lilia will give you a key issue form which you will need to take to Public Safety's Key Issue Office located next to Peterson Gym (across from the ARC) along with your HR memo and Red ID. Try not to lose your keys too often because Public Safety attempts to charge a ridiculous replacement fine (\$25/key) if you do.

Those of you who plan on driving to campus are entitled to faculty **parking privileges**. You'll need to take your Red ID card (see above), a temporary ID and copy of contract (both

provided by Patti) to the Cashier's Office in Rm 2620 of the Student Services Building and pay for a semester's parking permit.

If you don't know it already, you should check with Patti to determine **your work assignment**. You'll either have a mentor if you're teaching or one or more faculty whom you'll be assisting. Be sure to see these folks as soon as possible. All Ph.D. students should plan on taking "Teaching College Geography" as it is required by the department. You are advised to take this informal and valuable course during or prior to teaching your first course at SDSU. It starts the week before classes and meets once a week for six to seven weeks. For questions about this course, please speak with Dr. John O'Leary (x45511). It is imperative that you attend the beginning of year Doctoral Program Orientation Meeting held the week before classes start in the fall semester. The Doctoral Adviser and Coordinators will give you an orientation to the Department and answer any burning questions you might want to ask.

You should make a real effort to **introduce yourself** to all of faculty in the Department. The week before classes is a good time to do this because almost everyone is around and there are a lot of unfamiliar faces lurking the hallways. All of the faculty have an open-door policy most of the time, so you can just wander from open office door to open office door letting people know who you are. If a door is closed, just knock to see if someone is hiding inside. This will allow you and the faculty to attach faces to names and helps to create good feelings on all sides. You'll probably be surprised at how interested most faculty will be to meet you!

Because of the high cost of non-resident tuition, we require that our Ph.D. students who are U.S. citizens but not California residents become **California residents** during their first year here. You must do this immediately (deadline is mid-September of your **first** year) by: (1) getting a California driver's license; (2) registering to vote at your California address, (3) opening a bank account in California, (4) registering your vehicle in California, (5) signing a lease in California and (6) paying state taxes (and using your California address for tax reporting purposes). **You are encouraged to complete 1 through 5 above before the semester begins.** Also, if you have an automobile you are required by law to register it within 30 days. **If you fail to become a Californian, you get to pay your own tuition from Year 2 on!**

MY FIRST SEMESTER'S STARTED: NOW WHAT?

Okay! You're signed in, have an office, registered for classes, know your way around and are rarin' to go. Next to maintaining your health and sanity, your primary focus in this Ph.D. program has to be your academic work. Some day you will look back and realize that these were the "good old days." There really isn't anything to compare with the time you'll spend in your graduate program, so you should try to enjoy it. Stretch yourself intellectually and challenge your classmates to do the same. Ultimately, the graduate student experience is only as substantial as you and your fellow graduate students make it. If you're like most doctoral students you'll learn a lot more from your colleagues than you will from your professors. Work hard and excel academically.

For those of you with student loans hanging over your head from your previous encounters with institutions of higher education, remember that the Office of Financial Aid requires you

to be a **full-time student**. If you have come here from another campus, be sure to update your enrollment information with your student loan providers (if you had student loans in the past). The Graduate Division considers “full time” for a graduate student to be at least 9 units or any number of units of GEOG 897 or 899. Note that Graduate Affairs only pays fees for 6 units each semester. This can and usually does cause confusion, but don’t panic. Check with Patti and she can tell you how to get things straightened out.

The deadline to add and drop courses at SDSU occurs just after the first three weeks of classes. You must complete your course registration by the deadline. If you fail to drop a course and receive an unofficial withdrawal grade, it will count the same as an F (no grade points) and deliver a fatal blow to your ability to maintain the required 3.0 GPA.

During the first week of classes you will be asked by the Doctoral Adviser to complete an entrance survey by providing brief responses about your: (1) academic strengths; (2) academic weaknesses; (3) general topic(s) you think might be involved in your dissertation research; (4) faculty members you are interested in working with; (5) goals and objectives for the program; and (6) career objectives following receipt of your doctorate. We’ll also ask you to indicate the areas where you feel a need for course work. You will also be given a **“4-Year Progress Calendar”** and asked to develop a timetable for completing your doctoral program. On the calendar you will need to indicate what you expect to complete each year until receiving your degree. You should work through this exercise with your Interim Adviser. These items will serve as the basis for your **Diagnostic Interview**, which should take place before the end of September.

You and the Doctoral Adviser will select a temporary Advising Committee of two (or in some cases three) faculty members, hopefully with interests similar to yours: one of these individuals will be designated as your Interim Adviser. You will arrange for your Committee to meet with you to discuss your background and interests. They will make recommendations regarding additional preparation or remediation that you might require, and courses to meet your immediate needs as well as working with you to develop a broad outline of your doctoral program and time table. The **Interim Adviser and Advising Committee** will continue to work with you until you designate a Major Professor/Dissertation Chair and put together your Doctoral Committee.

There is no specified number of units in the doctoral program beyond the common core courses, Geog. 700 and Geog. 701, which you are required to take at SDSU. In addition to a broad understanding of modern geographic principles, you have to acquire the requisite theoretical, methodological, and, when appropriate, language skills needed to make you expert in your areas of specialization.

The program is centered around a limited number of **systematic specializations**. Areas of concentration in Human Geography are Urban, Social and Political Geography. In Environmental Geography, you can focus on Society and Environment or Watershed/Ecosystems Analysis. Within the realm of Physical Geography you can choose Biogeography, Climatology, Hydrology, or Landscape Ecology. In addition, you have to declare at least one **research methods or techniques emphasis**. These include Spatial

Quantitative and/or Qualitative Methods, Cartography and Internet Mapping, Geocomputation and Spatial Modeling, Geographic Information Systems (GIS), Remote Sensing and Image Processing, Visualization and Visual Data Mining, Spatial Decision Support Systems and Participatory GIS.

By the end of the Fall Semester or, at worst, by early Spring Semester you should have decided on your systematic specialties and methodological emphasis, developed a comprehensive plan of course work and a rough time-table for completing your degree. You will need to work closely with your Interim Adviser during this process. This should help you to identify the specific foci of your program and whom you wish to invite to serve as your Major Professor/Dissertation Chair and the other members of your Joint Doctoral Committee, including those from UCSB. Once you've reached this point, you can officially form your Joint Doctoral Committee with the consent of the Doctoral Adviser.

As a Ph.D. student, you have a **very** large part of the responsibility for assuring that you progress through your doctoral studies. Along with your Major Professor and committee members, you will determine the timing of virtually all of the elements of your program and the clearing of the various hurdles separating you from the doctorate. **Therefore, it is critical that you establish and maintain frequent and regular contact with your Major Professor and committee members.** It would be a really good idea to establish a schedule of monthly meetings with your Major Professor to discuss your progress to date and upcoming activities related to your program. Periodically, you should revisit your "4-Year Progress Calendar" and revise it as needed. Also, make contact by phone or e-mail now and then with the UCBS faculty on your committee in order to keep them abreast of your situation. In this way you will be able to keep communications open and information flowing. Further, this will enable you to avoid the situation where you would be talking to your committee members only when you "need something" from them.

During your time, both at SDSU and at UCSB, you will be paid as a teaching associate. For any non-teaching activities (such as faculty or personal research) you are allocated "assigned time" for research. Each semester, you are required to submit a summary of your activities undertaken as part of the teaching associateship. About a month prior to the end of the semester at SDSU (even for those at UCSB), you will receive an e-mail requesting a summary of your "assigned time" activities. For this summary, you should include your semester activities: research, presentations, publications and other activities and explain which SDSU course will benefit. Please be sure to submit the form (to Patti) in a timely manner so that your pay is not delayed.

During your first year at SDSU it's a good idea to **visit UCSB**. This will give you an opportunity to meet some of the graduate students and faculty there as well as seeing the surroundings so that you might be a little more comfortable on future visits. Such a sojourn would probably be most useful to you if it comes after you have selected a Major Professor and areas of specialization. You should try to meet with your UCSB sponsor and talk to anyone else you think might be appropriate for your Doctoral Committee. Be sure to phone and/or e-mail ahead and make appointments! Otherwise, you might strike-out during your visit.

At the end of each academic year you are required to provide a brief report of your academic and teaching associateship activities. The **annual report** should provide your Major Professor and the Doctoral Adviser with a brief summary of your activities, accomplishments and/or plans within the following categories:

1. course work and other formal academic activities (e.g., special studies, independent research, directed readings);
2. proposal development, written and oral exam preparation/completion, dissertation research/writing;
3. Teaching Associateship duties (text could be extracted from your assigned time reports to Patti); and
4. academic activities during the coming summer and start of the coming academic year.

After reviewing your Annual Report, your Major Professor will provide you and your Committee members with an annual review of your accomplishments and plans.

WHEN SHOULD I PLAN ON SPENDING MY YEAR AT UCSB?

As part of the joint doctoral program you are required to spend at least one academic year in **full-time residence at UCSB**, defined as three consecutive quarters of full-time enrollment, not including the summer. In order to maximize the utility of that experience, you'll be ready to go once you've decided on a Major Professor, have selected your specializations, and have a firm grasp of your dissertation topic. Precisely when this occurs will vary from individual to individual but will generally be your second year in the program. While most people will go Fall/Winter/Spring other options, such as Winter/Spring/Fall, are available.

It is very important that you complete an online application to UCSB by December 15 of your first year (if you are going to UCSB in fall quarter of year 2). You will need to fill out an online application in order to be eligible to enroll in courses at UCSB. You can do this through the Graduate Division website:

(<http://www.graddiv.ucsb.edu/admissions/application>).

Please choose the Joint Degree Program participation of "Geography" (UCSB/SDSU) in the Special Populations section of the first page on the online application. Please note that you should choose the option to pay by check or money order. To complete the submission of the application; you do not need to pay the application-processing fee because you did so when you applied to SDSU. Once you have completed the application process please let the UCSB Geography Graduate Coordinator know so she can send the proper forms/transcripts to Graduate Division to enroll you at UCSB for fall quarter. And, please send your Perm # that you are assigned to Patti.

ANY INFORMATION THAT MIGHT HELP ME FOR MY UCSB RESIDENCY?

From the annals of our brave students who have survived UCSB, we have compiled some real pearls of wisdom which should prove helpful to you. There is some ground work you should do before going to UCSB. About six months prior to your first quarter in the frigid north, you should contact your UCSB sponsor (or sponsors if you have more than one) to let them know that you're coming and to find out if they are going to be available to work with you during your time at UCSB. This alerts them to your intentions and allows you a chance

to get them recommitted to your efforts. A good entree for this discussion would be to e-mail an abstract of your potential dissertation topic for comment. Also make a visit to the UCSB campus so that you can try to meet with your sponsor(s) and to talk to other faculty that might be potential committee members. You should be able to get tentative class schedules for your time there that can be used in determining your course work possibilities. You'll be able to scope-out housing options in Isla Vista, Goleta, Ellwood Beach, downtown, or Montecito, too. Also be sure to talk with your joint program colleagues currently at UCSB for the current scoop on what's going on. During your stay at UCSB, you are encouraged to: (1) further develop your dissertation topic and reading list for your Writtens, (2) meet regularly with your UCSB committee members – taking pertinent courses that they offer is an excellent way to establish greater rapport with them, and (3) plan and even take your Writtens.

Housing possibilities can be explored from a distance if you'll get one of joint students at UCSB to post a notice on the Geography Department's email server (gradb). Indicate the accommodations you need, how much you're willing to pay, and when you'd like to move in. UCSB's Housing and Residential Services Office maintains an extensive listing of rooms, apartments, and houses for rent that you can check-out upon arriving. Remember that if you're starting at UCSB in the Fall Quarter (late September), you should have your housing situation sorted out before the end of August because after that, it's slim pickins. Some of your classmates will be going through the same process as you, so pooling resources might be helpful.

Single graduate students may wish to apply to the 'lottery' for UCSB **graduate housing** at <http://www.housing.ucsb.edu/hchoices/ssapts-general-info.htm>. Usually, graduate students apply between April 1 and June 1 each year and the results are announced by mid-June. Later, when the paperwork is completed around March-April, you will receive a **perm number** for log in purposes, which ensures that you are registered in the UCSB system.

For **family housing** you can apply anytime on the UCSB family housing website (<http://www.housing.ucsb.edu/hchoices/fsh-general-info.htm>), which means getting on a list (not applying to a lottery). The wait can be long, up to two years for couples with no children and about a year or less for families with children. **This generally means getting on the list as soon as you enter the program.** The application process involves creating a log in name and password. If you create a login name and password for family housing very early (like September of the previous year), you may have to keep renewing it about every three months to ensure that you are still on the waiting list for family housing.

For all students attending UCSB and accepting financial aid, you must complete an exit interview at SDSU. The web site to initiate an exit interview is: <http://bfa.sdsu.edu/fm/co/sfs/exitinterview.html> . **Your financial aid will be administered through UCSB during your residency there.** If you are unsure if the change in schools has been recognized, upon enrolling at UCSB you may want to contact the lenders of any student loans that you may have to notify them that you will be attending UCSB and are requesting a deferment based upon full time enrollment at another institution. The lenders will a form to

UCSB for verification after you have initiated the deferment request. If you have any problems, please see Patti O’Leary, SH 323 (poleary2@mail.sdsu.edu 619-594-8411). And, when you leave UCSB to return to SDSU, please complete an exit interview with Financial Aid at UCSB as well.

For students attending UCSB for the first time during the Winter or Spring Quarters, effective Fall 2006, the SDSU Office of Financial Aid and Scholarships may send you a message saying that they will only process financial aid for those JD students enrolled at SDSU in the fall semester. According to SDSU Financial Aid office, you can participate in an exit interview with one of their officers (even though you aren’t technically exiting), at which time you could receive the appropriate contact information for the lenders of any loan that you have received while attending SDSU.

The Fall Quarter at UCSB normally begins in late September, but you need to give yourself time to get everything sorted out. You won’t have much time when classes start because quarters move very quickly. You might want to arrive by mid-September. There are some people in the Geography Department office that you must meet. Jose Saleta (805/456-2829) or saleta@geog.ucsb.edu) is UCSB’s **Student Programs Manager** and he handles all of your paperwork. Introduce yourself to him; given the joint nature of the program, there will invariably be some sort of bureaucratic snafu that will need his attention. SDSU continues to pay your registration fees while you’re at UCSB and Jose handles the paperwork between the Department and the Graduate Division at UCSB. He will also show you where your mail can be found, how to get photocopies, access to phones, fax services, and keys (if you have a room). These will probably be some of your first “official” contacts at UCSB! You may receive bills for registration fees. The SDSU Graduate Division will pay these fees in late September, so no need to make any payments. If any benefits are held up due to nonpayment of fees, please contact Patti O’Leary immediately and we’ll try to clear that up.

Make an appointment to see UCSB’s **Graduate Advisor**, Prof. Stuart Sweeney, as soon as you can. Prior to being able to enroll in courses, the Graduate Advisor has to approve your class selections, so you’ll obviously need to see him prior to trying to register. Also be sure to talk with your sponsor(s) to go over your intended course of study, qualifying exam subjects, and dissertation work. This is best done early in your stay, ideally prior to registering your first semester.

At the beginning of each quarter and particularly the first, make an appointment to see your UCSB faculty sponsor. In addition to finalizing your class and independent research credits, you should make sure that the two of you are on the same page for your graduate assistant duties and any resource requirements that you may have (e.g., office space, computer or laboratory access, etc.). Access to office space is often dependent upon your sponsor. Be sure that you talk to them about being assigned a place to work, otherwise you might end up as an “orphan.”

Most importantly, get to know as many students as you can, because this is the main way you will learn how things work academically and socially. It’s also a great way to develop your ideas while in the north.

Registration materials will be mailed to your address or e-mailed to your e-mail on file about a month before classes if you're a domestic student. Registration is done through the GOLD web site (<https://gnet.ucsb.edu/gold/index.asp>). Make sure to do it as early as possible. International students need to pick-up registration information at the Office of International Students and Scholars on campus. Each quarter you'll have to fill out a form indicating the classes you've selected and have it signed by your sponsor and then the Graduate Advisor, Prof. Sweeney.

After you have the required signatures, drop all of your materials and forms from the registration packet at Health Services. Pick-up your **access card** to candidacy at the UCEN. This is proof of registration and to gain entrance into numerous student services during your stay at UCSB, take proof to the library and they will issue you an "academic" borrowing card which allows you to keep materials longer.

The Graduate Division no longer administers the Doctoral Candidate Fee Offset (DCFO) program. Instead, the funds will be distributed to each department/graduate program together with the fee fellowship allocation.

In the week prior to classes, the Geography Department has **an orientation for new graduate students**. Make sure you go to this because faculty and students will introduce themselves, you'll find out important course requirements, and be given information on access to all the department's labs and how to get an e-mail account. Be there or be left out! You will have a mailbox in the Department office.

While at UCSB, your stipend continues to be **paid by SDSU**, but we do "assign" your time to the UCSB faculty. Normally, but not always, you should be assigned as a research assistant to your sponsor. They do have the right to utilize your services as they like, including TA activities or other duties. In the past, some joint program students have been given no assignment, which sounds great but really limits your interaction with the department. It is your responsibility to should check with the Graduate Advisor to make assure that he is aware of your availability.

You should make every effort to enroll in at least 12 units every quarter at UCSB. UC System-wide takes a head count at the end of the 3rd week of the quarter and we get credit for full-time Ph.D. students only if they are enrolled in 12 or more units. **The one required course each quarter at UCSB is: Geography 201 - Colloquium**. Many joint doctoral students fill their schedules with tutorial or independent studies type courses. Chief among these are:

- Geog 596 - Directed Reading and Research (2-8 units, **petition required**)
- Geog 597 - Individual Study for Ph.D. Examinations (1-12 units)
- Geog 599 - Ph.D. Dissertation Research and Preparation (1-12 units)

All of these courses require that you enroll with an **instructor # or code** so that the Registrar knows who is giving you the grade. Instructor codes can be found at the end of the

Geography section of the quarterly Schedule of Classes and at our dept website. Click on "Undergraduate Program" and then use the pull-down menu to go to "Instructor Code."

Geog 596 **requires an add code**, which you can get in the main office.

For Geog 597 and 599, you should discuss what you will be doing with the faculty member who will be the supervisor of record and giving you the grade.

You must establish a GPA while you are enrolled at UCSB. Because Geog 201 is an S/U graded courses, and because many joint program students take 597 and/or 599, which also are S/U graded courses, it's easy to wind up with a 0.00 GPA at the end of your first quarter if you are not taking any other courses for a letter grade. The "big brother" computer over at the UCSB Grad Division will see this and automatically spit out a "subject to academic probation" notice because your GPA has fallen below a 3.0. So, **make sure you take at least one course in the first quarter for a letter grade (of B or better).**

Joint doctoral students have full library privileges at UCSB. The following is an excerpt from a memo that was sent to the Library by former UCSB Geography administrative staff. Hopefully none of you will encounter problems, but if you do, you can either have the UCSB library person give Karen a call, or refer them to this note:

"The Geography Department at UCSB has had a Joint PhD Program with the Geography Department at San Diego State University since 1991. Once students are officially admitted to the Joint Program and enroll here for at least one quarter, they are considered students pursuing graduate degrees at UCSB. Thereafter, they are considered students in good standing pursuing graduate degrees at UCSB as long as they are deemed to be making timely progress toward completion of the Ph.D. and are registered at either San Diego State or UCSB. We do not require simultaneous enrollment at both campuses. Students in the Joint Program must register at UCSB for a minimum of three quarters (normally during their second or third year) and advance to candidacy here. Once advanced, they become doctoral candidates at UCSB as opposed to merely doctoral students, and are entitled to faculty privilege cards. "

In addition to its normal collection, UCSB has an excellent Map and Imagery Laboratory which houses some 4.5 million maps and images and state of the art workstations. It's a great resource that you should be aware of. The UC's MELVYL electronic data base allows you to access all of the UC holdings and some outstanding on-line data base resources for library searches available only at UCSB, so exploit them while you are there.

Again, remember that quarters move fast. Finally, keep in contact with your sponsor(s) and run ideas by them. Remember, directed readings and special studies are great ways to keep actively involved with your sponsors and, in many cases, a good way to prepare yourself for your qualifying exams.

WHAT ARE THE MAJOR MILEPOSTS IN MY PROGRAM?

As you know from the previous section, you'll be "treading water" to some degree until you make several significant decisions. First, you need to **select systematic specialties and methodological emphases**. Hopefully you'll have a good grasp of these interests upon entering the program, but people do change their mind. If you haven't made these decisions by the end of your first semester or very early into your second semester, you're behind the curve.

Second, you will need to identify the person who will be your **major professor** and the members of your **Doctoral Committee**. Effectively, your Doctoral Committee supervises your program. They approve your course work selection, evaluate the dissertation proposal, administer and evaluate the Qualifying Exams, judge the merit of the dissertation, and administer and evaluate the dissertation defense. The Major Professor chairs the Doctoral Committee. Normally your Major Professor will come from the SDSU faculty. If we've done our job well or gotten lucky, that individual probably will be your Interim Advisor, although there are lots of legitimate reasons for you to select someone else. Remember that you need to *ask* your potential Major Professor to be your Major Professor. Don't take it for granted that someone "knows" what you want if you haven't asked. As a courtesy, if the person you select to be your Major Professor is not your Interim Advisor, let them know you've selected someone else. Normally, you won't hurt anyone's feelings and this can eliminate possible confusion in the future. Should there be cause to change Major Professor, follow the same process. It is permissible to have co-Major Professors who co-chair the Doctoral Committee.

You need to select a **second member** of your Doctoral Committee from our faculty and **two additional members from the UCSB Geography faculty**. Just as in the case of the Major Professor, be sure to invite the other members to be a part of your committee. Because you'll have earlier contact with the SDSU faculty, choosing the Second Member will probably be easier for you than determining who at UCSB fits your requirements. If needed, your Major Professor should be able to help you in making those decisions by providing information about or talking with UCSB faculty on your behalf. You already have at least one "sponsor" on the UCSB campus, but you will need to determine that you want them on your committee as well as selecting your fourth member. If you wanted to, you could have additional members to your Doctoral Committee from either Department, from other departments on either campus, or from another university (when authorized).

Very early on you should be thinking about extramural funding opportunities for your dissertation research. There are numerous **grants and fellowships** available to doctoral students to support their dissertation research. Among these are Fulbright-Hays Fellowships, National Science Foundation Dissertation Improvement Grants, NASA Earth Science Fellowships, and many, many other sources of funding both great and small. We strongly urge you to apply for dissertation funding, not only because of the monetary support it brings but for the longer term benefits which derive from feeling comfortable in the competitive application process and the professional prestige which derives from attaining such grants or fellowships.

Once you have put together the Committee, you will need to meet with the Doctoral Program Coordinator. He/she will initiate the **Nomination of Doctoral Committees for the Joint**

Doctorate and Conflict of Interest Disclosure form which requires the approval of the Doctoral Adviser and Graduate Dean at SDSU and the Department Chair and Graduate Dean at UCSB. Once signed, you have an **official committee**. All of the official forms required of you will be filed on your behalf by the Department, but be sure to check to make sure it happens.

The next hurdle to clear after your Doctoral Committee is formed is the **Written Qualifying Examination** or **Writtens**. While it will vary from person to person, normally you should be ready to attempt the Writtens sometime near the end of the second year of your program. The Writtens will cover material from three areas: (1) your substantive areas; (2) your methodological/technique emphases; and (3) general geographic theory and inquiry. In essence, you will need to demonstrate a broad understanding of modern geographic principles in addition to a specialist's competencies in your sub-field(s) of the discipline.

To **get ready for the Writtens**, you should discuss with each of your Doctoral Committee members their expectations of you. At least four months before the target date for your Writtens, prepare a draft **reading list**, with input from your dissertation chair. You may wish to consult the reading list available at the UCSB website for reference: <http://www.geog.ucsb.edu/academics/grad_handbook.htm>. Forward the draft reading list as an e-mail attachment to your other committee members. Request that they review your list and suggest any other key readings. You may also want to ask them if they require receipt of your draft dissertation proposal prior to the Writtens and if so, what stage of completeness it needs to be. Finalize the dates that you will take the exam, once you have committee concurrence with the reading list. Your chair will make arrangements with the other committee members to obtain questions and set the **format** (e.g., open and closed book) for each question. You may want to express your preference for timing and format of exam, before it is finalized. Shortly before the date of the Written Exam, contact your chair to make sure everything is as scheduled and planned. Also, determine when and by whom the questions will be administered, as well as what will be the format and structure for each portion of the exam. While all elements of the Writtens are flexible and up to your committee, normally the exams will be administered on three alternating days (e.g. MWF) for up to eight hours each day. Remember that you should sign up for Geog. 890, Independent Study for Doctoral Exams, when preparing for both Qualifying Examinations.

Your Doctoral Committee will assign a pass or a fail to your effort. Should you not pass the Writtens on the first opportunity, you are allowed one additional attempt. You may receive conditional passes, in which case individual committee members may ask you to complete additional readings, re-answer questions, or answer additional, follow-on questions. You must pass the Writtens prior to sitting for the Oral Qualifying Exam or Orals.

Before attempting the **Oral Exam**, you must have a provisionally approved **Dissertation Proposal**. The proposal describes your dissertation topic, summarizes the relevant background literature, and presents a comprehensive methodology or study plan for the dissertation. The Dissertation Proposal is often built from, or provides the basis of grant, fellowship, or scholarship proposals that are submitted to funding organizations.

Once you have submitted a draft Dissertation Proposal and you have passed the Writtens, you're ready to tackle the **Orals, the second of your two Qualifying Examinations**. During the Orals, questioning is focused on the dissertation proposal, although specific questions may be asked on material from the Writtens, which may require clarification. The goal of the Orals is to demonstrate that you possess the knowledge and competence required to carryout your dissertation research. Passing the Orals signifies that the Committee has accepted the dissertation proposal. If you do not pass the Orals on the first try, you are allowed one additional attempt.

Upon passing the Qualifying Examinations, you will be **Advanced to Candidacy**. This is done by the filing of the **Report on Qualifying Examinations for the Joint Doctorate** form. This form contains the signatures of your Committee members indicating their individual evaluations of your performance on the Qualifying Exams and the Committee's recommendation of advancement to candidacy as well as those of the SDSU Doctoral Adviser and the UCSB Graduate Advisor. You request advancement to candidacy by signing the form and indicating the date by which you intend to complete the dissertation. In addition, you must pay a fee of **\$90.00** to the **UC Regents**. After getting the SDSU Committee signatures, give the form and the check to Lilia Ortiz, who will handle the rest of the process.

Once you have advanced to candidacy the expectation is that you will register for a total of 6 units of GEOG 897 -- Doctoral Research, and/or GEOG 899 -- Doctoral Dissertation. However, if you and your Major Professor determine that formal coursework is necessary for preparing you for your dissertation research, you should request permission from the Doctoral Adviser to take courses other than 897 or 899. (The reason for this pertains to the source and amounts of allocated funding for JD student fee coverage.) During the semester you will earn your doctorate, you need to be enrolled in GEOG 899. Further, you will need to **apply for graduation** prior to the deadline for that semester.

Your last major requirements will be to write, defend, and submit a **dissertation**. It must be a significant piece of original research, which advances the discipline of geography. At the time you complete your dissertation, you will very likely be the reigning expert, worldwide, on the specific topic you have researched.

Students are supposed to be in a "fee relationship" with the University when they complete the requirements for the degree. Joint program students are rarely if ever going to be registered at UCSB the quarter they file, but they probably will be registered at SDSU. If you are registered at SDSU when you file, you do **NOT** have to pay the filing fee when you file your dissertation at SDSU. You are considered a student pursuing graduate degrees at UCSB as long as you are registered at either San Diego State or UCSB. If you are not registered at SDSU **or** UCSB when you file, such as during summer session, you'll need to register at SDSU for GEOG 899 Dissertation and apply for graduation by the deadline early that semester (or summer session). You will be responsible for covering the costs of registration and filing fees, as well as dissertation printing.

Your dissertation will be evaluated by your Dissertation Committee at the **final examination**, which is essentially a dissertation defense. The final examination is normally conducted at SDSU or UCSB, with all committee members in attendance. Special arrangements can be made for committee members to participate by teleconference or videoconference. The student gives an overview presentation of their dissertation results and findings, which is followed by questions and comments from committee members. The outcome of the defense is a pass or fail grade. The final examination may be retaken once. Revisions to the dissertation may be required following the exam, even if a passing grade is awarded.

There are a couple things you should remember to bring to your final examination (besides your presentation materials). The first is the **Report on Final Defense for Joint Doctorate** form that can be found online at: <http://www.graddiv.ucsb.edu/pubs/> or, you can get it from the Geography Department at either campus. Most of the time, your advisor will take care of this for you, but be sure to ask. This is the form that your committee will sign at the end of your defense. Your advisor will take this form back to SDSU Geography for its records. You should also bring **four copies of your dissertation signature page**. This is a page that is actually part of the hard copy printed text of your dissertation. It comes after the title page. Bring four copies of this page printed and formatted according to the UCSB formatting requirements

(<http://www.graddiv.ucsb.edu/academic/filingprocess/formattingrequirements.htm>) which includes the type of paper you use (100% cotton bond at least 20-pound in weight). Have your committee sign each page at this time. You will have to submit two copies to UCSB when you file your dissertation, and two copies to SDSU when filing there.

Once you have passed the final examination, it might be a good time to call Rita Baumann at SDSU's Grad Division (619-594-1504) to let her know that you successfully defended your dissertation (assuming that you did) and that you are ready to file. She can provide you with helpful tips and keep you on her radar until you've finished the whole process.

Following passage of the final examination, you may have some required revisions or **formatting** of the dissertation to take care of. Because the Ph.D. degree is awarded by both UCSB and SDSU, you need to make sure that you **format your dissertation** in the style that is prescribed by the UCSB Graduate Division and Library. When you are ready to print, make sure you refer to the "**UCSB Guide to Filing Theses and Dissertations**", which is a Graduate Division publication in cooperation with The Davidson Library. You can access it at the Grad Division website:

<http://www.graddiv.ucsb.edu/academic/filingprocess/filingdissertation.htm> There also is a copy in the Graduate Student Handbook, and you can get one at the Graduate Division or Special Collections Dept of the Library. The most important things to remember are:

- 100% cotton bond paper, and 1.5" margin on the left (or binding edge), and
- 1.25" margin on all other sides.

The "Filing Chart" in the Guide is especially helpful. If possible, pick up or request that the necessary forms (Degree verification request form; Diploma request form; UMI permission to microfilm form; Survey of Earned Doctorates form; UCSB Survey of Doctoral Degree Recipients form) be mailed to you by the Graduate Division before you plan to file and fill

them out ahead of time. If you fill all the forms out ahead of time, and have the requisite number of properly formatted copies of your dissertation, signatures pages, etc. and a checkbook handy the filing process shouldn't take longer than an hour.

Once the **dissertation is ready to be filed**, you will **first need to file it at UCSB**. The process is fairly simple and straightforward. You have two choices: 1) file two hard copies at UCSB, or 2) file one hardcopy and one electronic copy. The latter choice is cheaper. Take your copy(ies) of your printed dissertation to Graduate Division at UCSB, located on the third floor of Cheadle Hall. Gwen Miller is the Academic Advisor (gwenner.miller@graddiv.ucsb.edu; 805-893-2559) and she can assist you. She will check to make sure that your dissertation is formatted correctly, and that you are in good standing with the university. If everything is ok, she will keep the hard copy(ies) of your dissertation. If not, she will explain what changes need to be made before you can file. **Be sure to bring an extra copy of your title page, abstract, and two signed signature pages.** If you are filing your second copy to UCSB online, you can do so through the Grad Division webpage at UCSB. It's a very easy process and best to do this *after* you meet with Gwen so that you are sure everything is formatted correctly. You will also need to fill out the Survey of Earned Doctorates (*SED*) when filing at UCSB. Once the survey is filled out, make two copies. The original will be submitted to Gwen at UCSB, one copy will be submitted to SDSU, and the other is for your records. You will also need to fill out the [UCSB Survey of Doctoral Degree Recipients](http://www.graddiv.ucsb.edu/exitsurvey/) (Exit Survey) online. You can find this at <http://www.graddiv.ucsb.edu/exitsurvey/>.

In the unlikely circumstance that your doctoral studies continue past seven years from your start date in the joint doctoral program, you are at risk of not being granted the doctoral degree. UCSB policy for doctoral students, which applies to joint doctoral students, states that an **exemption to the seven-year rule** may be requested by petition. The petition is not submitted until the dissertation is filed, so there is a risk that the petition could be denied and the dissertation effort would yield no degree.

Once you are all clear at UCSB, you can **file at SDSU**. As mentioned above, make sure you have paid your registration fees for the semester (or summer) in which you plan to file. You also need to be enrolled in 899 for at least 1 unit. Next, pick up the phone and call Rita again at SDSU's Grad Division (619-594-1504). Let her know you've filed at UCSB and that you are now ready to file at SDSU. She will make sure you are registered in 899 and have paid all your fees. And she'll ask you to bring another hard copy of your dissertation to her, plus the two copies of the signature page (signed) and an extra copy of the title page. You will also need to turn in the copy of the SED survey (the one that you turned in at UCSB). If you don't have a copy of the SED survey with you, Rita can give you one that you can fill out on the spot. Next, take your dissertation to Montezuma Publishing located in Suite 104 of the Industrial Technology building on campus. Tell them that you need your dissertation bound for filing. Make sure to order copies (your choice of binding) for your committee members. Pay the copying fee **and make sure that you Montezuma Publishing sends a copy of the receipt back to Rita** in the SDSU Graduate Division. Once she has that receipt, you are officially Dr. [you last name here] and almost done!

You are required to present a **public oral presentation** of the dissertation, **within three months of filing your dissertation**. (Making a similar presentation at UCSB is optional and is good opportunity to showcase your dissertation results.)

In the happy event that you make it through all of the steps outlined here, we will very strongly urge, cajole, and encourage you to participate in the SDSU College of Arts & Letters (CAL) **Commencement Ceremony** celebrating your graduation. It is both an opportunity for you to receive the recognition that you deserve for your many years of effort and an opportunity for you to bask in the pride that your loved ones, friends, fellow students, and faculty take in your accomplishment. In addition to the individual hooding ceremony at the CAL main graduation, there will be a **departmental recognition ceremony** to honor you. Be there or be square!

To participate in the CAL Commencement Ceremony you must have either graduated, or your Major Professor must swear on a stack of Hartshorne's Nature of Geography that you will file your dissertation by the end of the summer session at the latest. In the latter case, you should apply for spring graduation so that your name will be included in the Commencement Bulletin and be on the list for tickets. After the spring term has ended, if Dr. Stow or your Major Professor emails Rita that you will defend and are on track to finish in time for summer graduation at the UC campus, she will "roll" the spring application over to summer and waive the \$55.00 fee. You will still have to be registered in 899 when you submit your dissertation.

EPILOGUE

Hopefully this handbook will provide you with some detail and added insight into what will be required of you to get through your doctoral program. While this represents the eighth iteration in development of a doctoral student handbook, we would appreciate any comments or suggestions that would improve its utility or readability.

August, 2011

University of California,
Santa Barbara

UCSB DEPARTMENT OF GEOGRAPHY

GRADUATE HANDBOOK

2010 - 2011



“Without geography, you're nowhere” (Jimmy Buffett)

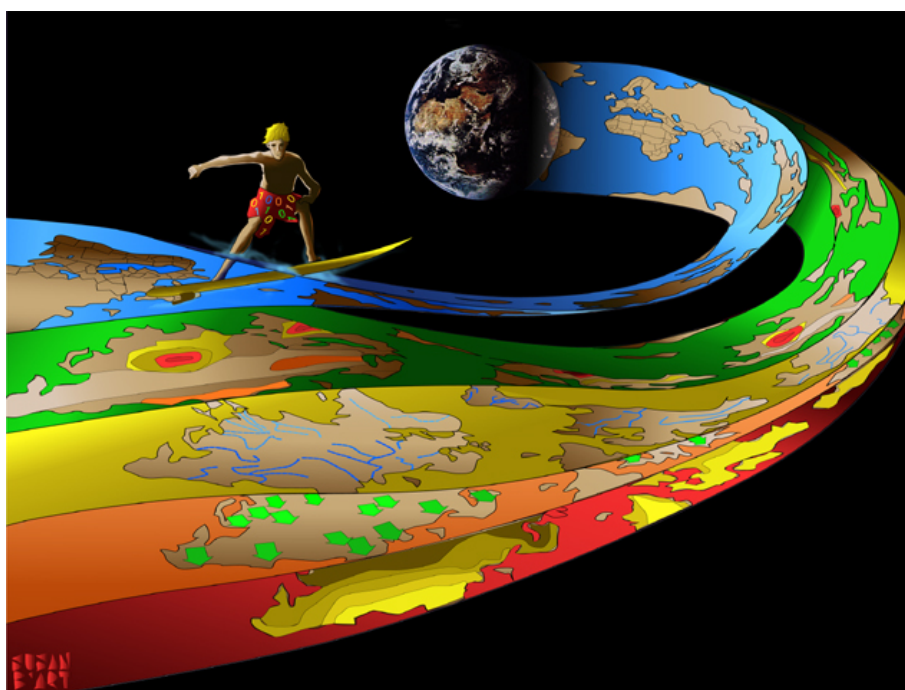
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Graduate Study in the Department of Geography at UCSB

Welcome to the graduate program of the Department of Geography at UCSB. The material within this Handbook will hopefully answer most of your questions about our graduate program. The first edition of the Handbook was written in 1989 at the suggestion of a grad student, and continued grad student input is both welcome and necessary to keep the handbook up to date.



Much of the information contained within this handbook can also be found at the department's website (<http://www.geog.ucsb.edu/>), and it is designed to be used in conjunction with the Graduate Division's *Graduate Handbook* (<http://www.graddiv.ucsb.edu/>). This handbook has been prepared as carefully as possible. Please notify José Saleta, the Graduate Program Assistant (saleta@geog.ucsb.edu), if any information is unclear or missing. It is each student's responsibility to confirm the deadlines, requirements, and paperwork that apply to his/her degree program at each step in the graduate school process.

Other Helpful Links:

- Graduate Division Calendar <http://www.graddiv.ucsb.edu/calendar/>
- GOLD System, Office of the Registrar <http://www.registrar.ucsb.edu/gold.htm>
- Student Health Services <http://studenthealth.sa.ucsb.edu/>

Mission

We will build an extraordinary community for creating new knowledge about planet earth and its inhabitants.

The Department of Geography aims to be the intellectual home of choice for studies of Earth as the home of humanity. Such studies need to integrate knowledge from a wide range of sciences and, consequently, require two conditions: access to specialists whose collective interests span both human and physical dimensions of the Earth system, and an infrastructure that supports information-rich, computationally-based investigation. Both the specialists and infrastructure are available at UCSB, but Geography aims to achieve a much greater level of creativity by ensuring that they exist in close proximity and by nurturing a population of undergraduate and graduate students who are methodologically equipped to contribute.

We will create new methods and models to advance geographic information science.

Studies of the Earth system inevitably require access to vast stores of information - in the form of raw data and of accumulated scholarly knowledge. In collaboration with Computer Science, UCSB's Department of Geography is already at the forefront in the development of technologies and infrastructures that allow such information to be found and accessed across distributed

networks. Such studies also require a solid foundation of tools for exploring spatial data and for implementing knowledge of process in computational models. In our vision, we anticipate a steady shift from our current emphasis on the infrastructure for sharing data and tools to a greater emphasis on the sharing of knowledge of dynamics, particularly in the form of computational models. This shift will also require more specialization in the unique properties and problems associated with geographic information and geographic information science.

We will use integrated science to better understand spatio-temporal dynamics.

Study of the Earth system also requires access to knowledge of dynamic processes that range from those that operate in the oceans and atmosphere, to migration processes that redistribute humans across the landscape, and to processes of land use change. In our vision, Geography will include specialists in all of the major processes that influence the Earth system at human timescales, and who are committed to integrating their knowledge with others to solve problems. To maximize the value of our studies and to minimize duplication of effort, we are firmly committed to an interdisciplinary collaboration with process specialists in other departments.



Areas of Emphasis

The Geography Department at UCSB offers specialized graduate training leading to the Master's and PhD degrees. Areas of concentration include:

EARTH SYSTEM SCIENCE (ESS): This systematic area emphasizes the measurements, analysis, and modeling of hydrologic, atmospheric, oceanic, and terrestrial systems and the interactions between systems. A large proportion of the problems addressed by researchers in ESS involve three common elements: large regional issues; mathematical and computational modeling; and large, spatially indexed datasets.

HUMAN GEOGRAPHY (HG): This systematic area covers the major components of Human Geography offered by the Department, including: human spatial behavior; spatial decision-making and decision support; urban and regional modeling, planning, and policy; human movement and transportation systems; resource and environmental management; environmental ethics; human response to the changing environment.

MODELING, MEASUREMENT, AND COMPUTATION (MMC): This area is the investigation of those sets of techniques from the areas of analysis, statistics, and computation that are particularly well-suited to the modeling of the complex, geographic phenomena that are the subject of investigation in both ESS and HER. Important sub-areas include numerical modeling, spatial statistics, remote sensing, computational modeling, and database systems (including Geographic Information Systems), and visualization, all of which are increasingly dependent on knowledge of computational theory and practice.

The Faculty



Bodo Bookhagen (PhD, Potsdam University, Germany), Assistant Professor: Understanding Quaternary climate change, geomorphic processes, landscape evolution, and tectonic processes through integrated studies involving cosmogenic radionuclide dating, recent and past climatic records, remote sensing, numerical modeling, and field observations.

bodo@geog.ucsb.edu – 805-893-3663 (messages)



Leila M. Vespoli de Carvalho (PhD, University of São Paulo, Brazil), Assistant Professor: Regional and large-scale climate variability and modeling, global climate change, and scaling processes in geophysics.

leila@icess.ucsb.edu – 805-308-2833



Oliver Chadwick (PhD, University of Arizona), Professor of Geography and Environmental Studies: Pedology, geomorphology, quaternary geology, soil-water-vegetation interaction and landscape relationships, and isotropic fractionations during soil evolution (affiliated appointment with Environmental Studies).

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Richard Church (PhD, The Johns Hopkins University), Professor: Spatial optimization, natural resources management, and operations research methods, GIS.

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Keith Clarke (PhD, The University of Michigan), Professor: Cartography and geographic information systems.

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Helen Couclelis (PhD, University of Cambridge), Professor: Urban and regional modeling and planning, spatial cognition, geographic information science, geography of the information society.

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Tommy Dickey (PhD, Princeton University), Professor: Atmosphere-ocean interactions and upper ocean mixing, turbulence and internal waves, bio-optics, biogeochemistry, and biological-physical interactions.

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David Siegel (PhD, University of Southern California), Professor: Interdisciplinary oceanography investigating physical, biological, optical and biogeochemical couplings on micro to ocean basin scales. Specifically, satellite ocean color remote sensing and optical oceanography, scale interaction in ecological and population systems, role of radiative exchange in air-sea interactions, and data information systems.
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Libe Washburn (PhD, University of California, San Diego), Professor: Coastal circulation, mesoscale processes, air-sea interaction, and interdisciplinary oceanography.
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Emeriti Faculty



Raymond Smith (PhD, Stanford University), Emeritus Professor: Remote sensing of oceans, physical and biological oceanography, primary production and bio-optical modeling in aquatic environments with emphasis on Antarctic ecosystems, marine and sea ice ecology of Southern Ocean, UV effects on phytoplankton, optical/biological/physical oceanography; marine resources, remote sensing of oceans, and earth system sciences.

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Terence Smith (PhD, The Johns Hopkins University), Professor of Geography and Computer Science: Individual and aggregate decision-making, and the application of methods of artificial models to such problems

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Waldo Tobler (PhD, University of Washington), Emeritus Professor: Cartography and computational geography. Professor Tobler has retired from teaching, but continues to publish.

tobler@geog.ucsb.edu – 805-964-0116

Affiliated Faculty: ladder-rank faculty members who participate in instructional activities (including serving on Master's and PhD Committees) in a department or program in which he/she does not hold a salaried appointment.



David Cleveland (PhD, University of Arizona), Associate Professor of Environmental Studies. Research Interest: Sustainable agriculture, plant breeding, agbiotechnology, farmer and scientist knowledge.

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Frank Davis (PhD, The Johns Hopkins University), Professor, Donald Bren School of Environmental Science & Management. Research Interest: Biogeography, landscape ecology, conservation planning.

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Jeff Dozier (PhD, University of Michigan), Professor, Donald Bren School of Environmental Science & Management. Research Interest: Snow science, remote sensing, information systems, environmental optics, earth system science.

dozier@bren.ucsb.edu – 805-893-5889



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James Frew (PhD, University of California, Santa Barbara), Associate Professor, Donald Bren School of Environmental Science & Management. Research Interest: Environmental Information Management.
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Mary Hegarty (PhD, Carnegie Mellon), Professor and Vice-Chair of the Department of Psychology. Research Interest: Spatial Cognition, Comprehension, Reasoning, and Individual Differences.
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Edward Keller (PhD, Purdue University), Professor in the Department of Earth Science and the Department of Environmental Studies. Research Interest: Study of stream and river form and process and studies of Quaternary stratigraphy and tectonics as they relate to earthquake hazard, landslides, active folding and mountain building.
keller@geol.ucsb.edu – 805-893-4207



John Melack (PhD, Duke University), Professor of Ecology, Evolution, and Marine Biology, Donald Bren School of Environmental Science & Management. Research Interest: Biology, Ecology, Limnology.
melack@lifesci.ucsb.edu – 805-893-3879



Susan Stonich (PhD, University of Kentucky), Professor of Environmental Studies. Research Interest: Effects of economic development on human societies and the natural environment in Central America.
stonich@anth.ucsb.edu – 805-893-8627



Christina Tague (PhD, University of Toronto), Assistant Professor of Hydrology, Donald Bren School of Environmental Science & Management. Research Interest: Eco-hydrology; climate and land use change impacts; environmental modeling; model calibration, evaluation, and development
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The Graduate Advisor

The Graduate Advisor is Martin Raubal: raubal@geog.ucsb.edu.

Each department's Graduate Advisor is an official faculty representative of the Graduate Dean in matters affecting graduate students or graduate programs in the academic departments. The Graduate Advisor is an administrative appointment, made by the Vice Chancellor, separate from the department chairperson, the department, and the Academic Senate. **The Graduate Advisor's signature is the only departmental signature, other than the chairperson's, recognized as official on forms and petitions presented by graduate students.** It is the Graduate Advisor who evaluates and approves students' study lists, advises them on advancement to candidacy, and considers their petitions to change majors, to add or drop courses, to waive or substitute requirements, to take leaves of absence, etc. The departmental Graduate Advisor should not be confused with your thesis/dissertation advisor (the Chair of your thesis/dissertation committee).

The Graduate Program Assistant

The Graduate Program Assistant for 2009/2010 is José Saleta: saleta@geog.ucsb.edu, 805-308-1045.

The Graduate Program Assistant (GPA) provides administrative and clerical support for the graduate program (and sometimes is just a sympathetic ear). Assisting in the coordination of the admissions process, the GPA is often the student's initial contact in the department. The GPA assists the graduate advisor in monitoring students' progress toward their degrees, and also provides information about departmental and Graduate Division policies and procedures. Faculty and students alike rely heavily on the GPA for information, but, ultimately, faculty must be responsible for academic planning.



The Graduate Committee

The mission of the Department of Geography is to maintain an active and dynamic environment to help cultivate and build a strong geographic community. We would like to ensure that all graduate students have a positive experience while at UCSB. The Graduate Committee (GC) is a mix of Geography faculty members, plus the Graduate Program Assistant. The responsibilities of the GC include reviewing all graduate applications, making admission decisions, annual review of graduate student academic progress, and general problem solving for graduate matters. It provides a safe and confidential forum for solving problems during your time as a graduate student. Should a problem arise, please feel free to contact any of the individual members of the committee.

The Graduate Committee for 2010/2011 consists of:

Name	email	Phone (805+)	Office Location
Helen Couclelis	cook@geog.ucsb.edu	893-2196	5809 Ellison Hall
Hugo Loaiciga	hugo@geog.ucsb.edu	308-2839	3626A Ellison Hall
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Dar Roberts	dar@geog.ucsb.edu	308-2838	3611A Ellison Hall
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Jose Saleta	saleta@geog.ucsb.edu	308-1045	1834 Ellison Hall
Mo Lovegreen	mo@geog.ucsb.edu	308-1246	1841 Ellison Hall
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Registration

For current registration information and deadlines, visit the Registrar's website: www.registrar.ucsb.edu/

Fees and Registration: Please make sure that you enroll and pay fees by the deadlines printed in the quarterly "Schedule of Classes." You should review your study list with your advisor *every quarter*. Approximately 2 weeks after the quarter begins, the department is sent a list of courses that all grads are enrolled in. At this time, the Graduate Program Assistant and Graduate Advisor review the list to make sure that you are registered in the appropriate courses and number of units. Students who fail to pay fees and/or to register by the 3rd week of the quarter lose student status and relinquish virtually all student privileges (university housing, library privileges, student health insurance, and employment in TA, GSR, or Associate titles). If your **status lapses**, you must petition for reinstatement. Petitions are available from the Graduate Division or can be downloaded at: <http://www.graddiv.ucsb.edu/pubs/>. Reinstatement is not guaranteed, especially if you have exceeded maximum time limits for completion of the degree.

Full-Time Enrollment: The standard course load is **12 graduate units per quarter**. Since resources come to the campus (and, in turn, to the Department) in the form of block grant fellowships, Teaching Assistantships, tuition fellowships, etc. based on the 12 graduate unit formula, it is strongly recommended that students enroll in 12 graduate units each quarter. You may have to provide a justification/reason why you cannot enroll in 12 units at the time of registration. With the availability of courses in the 500 series (596, 597, 598, 599), it should be no problem for everyone to enroll in at least 12 graduate units per quarter. There is no upper limit on the number of units a graduate student may take.

Grades/Incompletes: Letter grades assigned at UCSB are A, B, C, D, and F. Non-letter grades are: S (Satisfactory), U (Unsatisfactory), I (Incomplete), IP (In Progress), P (Passed), and NP (Not Passed). S/U grades are for graduate courses only; P/NP grades are for undergraduate courses. **The grade S may be assigned only if the work is of B or better quality (not B-);** the grade P may be assigned only if work is of C or better quality (not C-). Only upper-division and graduate courses in which grades of A, B, C, or S are received are counted toward satisfying graduate degree requirements. A student must petition the Office of the Registrar to obtain an Incomplete (I) grade. In the absence of this petition, a grade of F, NP, or U will be recorded. Incomplete grades must be completed by the end of the first quarter following the incomplete class, or the I grade will be changed automatically to an F, NP, or U.

Grading Policy: The UCSB Faculty Legislature recently revised regulations concerning unfinished graduate coursework (defined as any course in which a graduate student enrolls, regardless of the course number). The revisions bring a greater degree of uniformity to the way unfinished coursework is treated and, thereby, makes it more important than ever that students complete their coursework in a timely manner.

Students are allowed to carry **No Grades (NG)** and **No Records (NR)** for only one quarter past when the course was originally undertaken before the NG or NR automatically reverts to a failing grade. This brings the grade notations of NG and NR in line with the policy governing incomplete grades, except that students will not be able to petition for extensions of NG and NR (as they can with an Incomplete). This rule applies to courses numbered 597, 598, or 599.

As a result of these policies, any grades of NG or NR from coursework in any previous quarter will automatically revert to failing grades unless a letter grade, S/U, or P/NP is reported to the

Registrar by the instructor of record. While a NG or NR requires no Registrar's petition (as does the I grade), they automatically expire at the end of the next quarter with no possibility of extension. Incomplete grades "can" be extended.

These policy changes were implemented to reduce the number of students with excessive unfinished coursework (defined as 12 or more units of Incomplete, No Grade, and/or No Record). Students are reminded that if they have 12 or more units of unfinished coursework, they will be placed on academic probation after first receiving an advisory letter. Students continuing on for a doctorate must remove all unfinished coursework before a Master's degree can be awarded. Finally, excessive units of unfinished coursework may block appointment to an academic apprenticeship (TA, GSR).

Standards of Scholarship: To remain in good academic standing, a student must make timely progress toward degree completion and satisfactorily meet the following standards of scholarship established by University and campus Academic Senate regulations or Graduate Council rulings:

- Maintain a cumulative GPA of at least 3.0.
- Keep the student transcript free of excessive units of unfinished coursework, defined as 12 or more units of Incomplete, No Grade, and/or No Record.
- Advance to doctoral candidacy within four years of admission (applies to students admitted Fall 1995 or later).
- Complete the Master's degree within the four-year time limit.
- Complete the Doctoral degree within the seven-year time limit.
- Meet all departmental degree requirements in accordance with departmental time limits, including satisfactory performance in core courses and on required examinations; pass departmental examinations within the number of attempts permitted by the student's department and Graduate Council.
- Form a Master's or Doctoral Committee, present a thesis plan or dissertation research proposal acceptable to the committee, complete a thesis or dissertation acceptable to all committee members, and successfully pass a final defense of the thesis or dissertation when required.

All disciplinary actions are taken after consultation with the department Chair and Graduate Advisor except where otherwise noted.

Geography 596, 597, 598, and 599: These independent study type courses are designed to provide flexibility for individual study towards the Master's and PhD degrees and to enable students to easily maintain a 12.0 unit course load each quarter. Instructor numbers can be found in the Schedule of Classes and at our website: <http://www.geog.ucsb.edu/courses/instructor-codes.php>.

596 - Directed Reading and Research: 2-8 units must use an instructor number when registering. The student, with the instructor's endorsement (the instructor is usually the student's thesis or dissertation advisor), writes a brief proposal for each tutorial. No more than half the graduate units necessary for the Master's degree may be taken in Geography 596.

597 - Individual Study for the PhD Examinations: 1-12 units. Must use an instructor number when registering. Graded S/U and does not provide unit credit towards the degree.

598 - Master's Thesis Research and Preparation: 1-12 units. Must use an instructor number when registering. Graded S/U and does not provide unit credit toward the Master's degree. Instructor normally is the chair of the student's thesis committee. 598 should only be enrolled in during the quarter in which the student will be finishing the masters.

599 - PhD Dissertation Research and Preparation: 1-12 units. Must use an instructor number when registering. Graded S/U. Instructor normally is the chair of the student's Doctoral Committee.

Leaves of Absence: UCSB requires continued registration of all graduate students until completion of all requirements for the degree. In extraordinary circumstances, however, students, admitted Winter 1990 or thereafter, who have registered for and completed at least one quarter and are in good academic standing may petition for and be approved for a leave of absence. An approved leave of absence is designed for students who encounter extraordinary circumstances that require a break in their progress toward their degree objectives. The mechanism guarantees persons a place in their degree program upon return from their approved leave, and it provides a very minimal use of University resources during the approved leave time as listed below. Persons expecting to use additional University resources or faculty time will be required to register.

The circumstances for which students may apply for a Leave of Absence include the following: 1) documented medical/health difficulties which would reasonably inhibit graduate studies; 2) pregnancy/parenting needs up to the age of 12 months of the child or up to the first 12 months of adoption placement in the home; 3) family emergencies of an unusual and unanticipated nature; 4) military service required by the student's country; 5) Filing Fee Quarter of Leave during student's last quarter at UCSB to file thesis or dissertation (terminal students only). Petitions for leaves must be accompanied by appropriate supporting documentation.

The following examples are not circumstances for which an approved leave of absence will be granted; 1) financial hardship and the desire to not pay fees; 2) a desire to take "time off" from the pressure of studies; 3) the necessity to focus primary energies on library, laboratory, or field work related to examinations or thesis/dissertation requirements, including study abroad or outside the University community; or 4) exigencies resulting from outside employment; or 5) a desire to protect visa status; or 6) conducting research outside the state of California.

Request a leave of absence petition from the Graduate Division front desk or download a copy at: <http://www.graddiv.ucsb.edu/pubs/>. If you go to the Graduate Division, you may wish to meet with an Advising Assistant to discuss your particular situation.

In Absentia Registration: Graduate students whose research or study requires them to remain outside California throughout the quarter may be able to take advantage of "in absentia" registration, which reduces the combined education, registration, and campus fees by 85%. Students will still have to pay the full health insurance fee and will have access to student health centers and all benefits associated with the student health insurance plan. Non-resident tuition remains unchanged. This option will be of use to graduate students who must register to receive fellowships or research assistantships, for example, or for students fulfilling required internships out-of-state. Students may apply by completing a Graduate Student Petition which can be downloaded at: <http://www.graddiv.ucsb.edu/pubs/>; the student's Research Advisor must verify on the petition that the student will be conducting research or engaging in study which will require the student to be outside California for one to three quarters.

Degree Dates and Filing Deadlines: Degrees are granted four times a year; the degree conferral date is the last day of each quarter.

For the 2010/2011 academic year, filing deadlines are:

Fall 2010	December 10, 2009
Winter 2011	March 18, 2010
Spring 2011	June 10, 2010
Summer 2011	September 9, 2010

A student must have finished all requirements by the final Friday of the quarter to get a degree dated that quarter, even though the conferral date may be the next day (i.e., a Saturday when Graduate Division is closed). Theses and dissertations filed between quarters (in late August or during the break between Fall and Winter quarters, for example) will not cost students additional fees if they were enrolled the previous quarter, but the degree will be dated the end of the next quarter.

Annual Review of Graduate Student Progress: The Graduate Council and the Graduate Division suggest that every department conduct a faculty review of all graduate students' progress each year in order to spot problems, evaluate chances of successful completion, and encourage good work. The Geography Department normally conducts this review in the Spring. Marginal students and those on probation or making poor progress must receive clear explanations of problems, along with specific requirements to remedy deficiencies in a specific amount of time. In this way, problems can be addressed early before they become serious grievances.

Appeals Procedures for Graduate Student Disputes with Graduate Committees

From time to time, disagreements about decisions, deadlines, policies, procedures, and issues of academic judgment may arise between a student and members of a thesis or dissertation committee. As in all such disputes, involved parties should, in the spirit of collegiality, attempt to resolve these issues internally.

- a) A student should, therefore, first meet with the Chair of his/her committee in an effort to resolve the dispute. If the student feels that she or he is unable to do this, or if areas of disagreement still remain after this meeting, a written appeal describing the situation and requesting involvement should be addressed within 14 days to the Department Chair (currently, Dar Roberts). If the Chair is a member of the committee, the appeal should be made to the Graduate Advisor (currently, Martin Raubal), or, if a conflict of interest is also present there, to the chair of the committee responsible for departmental graduate affairs.
- b) The department should act to resolve the issue or declare it irresolvable and inform the student in writing within 30 days.
- c) If the dispute cannot be resolved within the department, or if the student finds the department's resolution unacceptable, the student may appeal to the Graduate Dean who will attempt further resolution. This appeal must be made in writing within 14 days of the department's decision.
- d) If the Graduate Dean is unable to resolve the dispute to the parties' satisfaction within 30 days, the graduate student has 14 days to submit a written appeal to the Graduate Council. The

Graduate Council must inform the student of its decision within 30 days. In this area, decisions of the Graduate Council are final.

The Master's Program

Undergraduate Preparation

An undergraduate degree in Geography is not required. Applicants with strong academic backgrounds in specific and diverse systematic study areas are strongly encouraged to apply. While a Master's degree is normally required before admission to the PhD program, students applying to the department with an undergraduate degree are encouraged to apply for the MA/PhD program if the PhD is their final degree objective.

No foreign language will be required. However, language proficiency will be strongly recommended for some students, depending on their native language and country of origin, areas of specialization, and dissertation topics.

The Master's program offers two plans: the thesis (Plan I) and the examination (Plan II) alternatives. The **thesis** will summarize the results of original scholarly research in Geography, shall conform to the style required by the Graduate Division (margins, formatting, paper, pagination, etc.), and must be approved by each member of the Master's Committee. **In January 1999, the faculty agreed that the Master's thesis may be equivalent to a paper suitable for publication in a peer-reviewed academic journal (either submitted for or accepted for publication). However, first and foremost it must be acceptable to all members of the student's Master's Committee and requires the same review and approval process that all theses do.**

Course/Unit Requirements of the MA Degree:

Students in the Master's program are expected to complete the degree requirements in effect at the time they are admitted to the program, though they may elect to follow a subsequent set of requirements.

	Plan I – Thesis	Plan II – Examination
A. Total Units Required	34	46
B. 200 & 500 level Geography units (exclusive of Geog 201; 200A, B, and C; 500; 597; 598; and 599 - no more than half may be in 596)	20*	24*

* The number of systematic or techniques units that any student should take will depend on the student's needs and background, but the total should include some of each.

The program is designed to provide maximum flexibility while assuring a basic level of competence within Geography. Because Geography is traditionally among the broader academic disciplines, coursework in related departments is often appropriate to graduate study within the field.

Required Courses

Geography 201 - Seminar in Geography (required every quarter offered; S/U grading only)

Geography 200A, B and C - Introduction to Geographic Research, normally taken during 1st year

Geography 210A, B and C - Analytical Methods in Geography

Strongly recommended:

Geography 276 – Geographic Time Series Analysis

Geography 500 (T.A. Training, required for all Teaching Assistants).

Geog 200ABC: Except in unusual circumstances, students must have a thesis proposal accepted by their advising committee by the end of the academic quarter following the end of the quarter in which they enrolled in 200C or they will automatically be transferred to the examination route. After the committee accepts the proposal, a maximum of 3 academic quarters will be allowed to complete the thesis or the student will be transferred to the exam route. For Plan II (examination) students, Geography 200A, B, and C will provide a needed exposure to research methods, and, for Plan I (thesis) students, the courses will provide a firm foundation for thesis research. A secondary goal is the building of improved bibliographic and other research and writing skills. Performance in the course will also help the faculty determine the suitability of the student to the chosen program (Plan I or II).

Geog 210 A, B and C: Students may petition out of 210 A, B, and C if:

- They have taken Geog 172 .
- They have taken the equivalent elsewhere or will take its equivalent from another department on campus.
- Their faculty advisor does not feel the student needs the courses.

To petition out of a department requirement, you need to submit a Petition for Graduate Degree Requirements which justifies/explains your request for exemption, have it endorsed/approved by your Master's Committee chair, and then submit it to the Graduate Advisor for approval.

Master's Committee

The Master's Committee consists of at least **three UC ladder faculty** members. **Two members** of the committee must be ladder faculty from the **Geography** Department (or who hold Affiliated appointments with the Geography Department), one of who will be appointed as chair or co-chair. Additional members may be added beyond the three required when appropriate. The committee requires the approval of the Graduate Advisor, the Department Chair, and the Graduate Dean. The thesis requires the signatures of **all** members of the committee, as nominated on Master's Form I. Ladder faculty who retire when a student's thesis is still being written may continue to serve on and chair the committee in question without any further approval or re-approval being needed. In instances where the faculty member retires before the Master's Committee is nominated, the retired faculty may serve as a second or third member without special approval from Graduate Division. Graduate Council approval is required when the faculty member who has retired is being nominated to serve as chair of a Master's Committee. Emeriti faculties who continue with the University as "research professors" enjoy the same committee privileges and may chair committees without special approval.

Maximum Time/Normative Time for the Master's Degree

The **normative time** for completion of the Master's degree in the Department of Geography is **7 quarters**. The maximum time allowed for Master's degree candidates in all fields to complete their degree requirements is **4 years** (Academic Senate Regulation 300(A)). The University's 4-year degree deadline for a Master's degree is distinct from an individual academic department's average or **normative time** for completion of a Master's degree. Normative time is the number of years considered to be reasonable for completion of a particular program by a full-time student who enters the program without academic deficiencies. The Department will enforce these rules and approve exceptions only under unusual circumstances.

If you exceed the 4-year maximum before completion of the requirements for the Master's degree, you must petition the Graduate Council for a **degree deadline extension**. The Graduate Council is concerned that degrees be granted only to students who are current in the scholarship of their fields and who have kept abreast of the literature and research in the discipline. The nature of the petition depends on the length of time by which the degree deadline has been exceeded. If the degree deadline has been exceeded by **less than two years**, a Graduate Student Petition requesting the extension, endorsed and signed by the Graduate Advisor, must be submitted. Approval of such petitions will typically be routine. If the deadline has been exceeded by **more than two years**, a Graduate Student Petition requesting the extension, endorsed and signed by the Graduate Advisor, must be submitted and must be accompanied by a memo documenting and certifying currency in the field, signed by all members of the thesis committee. The Graduate Council has identified continuous registration, teaching or research apprenticeships, or contact with current literature and research in the field as examples of currency. If additional information is needed, the Graduate Division will contact the Graduate Advisor. Approval of such petitions may be considered by the Chair of Graduate Council, or referred for inclusion on the Graduate Council agenda as necessary. Petitions are available from the Graduate Division, or can be downloaded at <http://www.graddiv.ucsb.edu/pubs/>.

8th Quarter Justification

Beginning Fall 1995, all Master's students who have not finished by the 8th quarter will be required to file a justification with the department, signed by their thesis advisor, which includes a timetable for completion of the thesis. If a justification is not filed and approved, the student will be switched to the examination route, and will then be given the exam during the 9th quarter.

Financial Support as a Master's Student and Standard of Scholarship

Financial support for Master's students on departmental funds (e.g., Teaching Assistantships, Fellowships) beyond four quarters is contingent upon progress and performance. For any student enrolled in the Geography M.A. or PhD program, a GPA of less than 3.3 or a grade of C+ or less in geography **may cause departmental financial support to be withdrawn**.

Residency Requirement for the Master's Degree

Students in a Master's program must spend a minimum of **three quarters** in full-time residence at UCSB.

Master's Degree by Examination

For students electing Plan II, the final examination will consist of **three parts** and will assess the candidate's general knowledge of geography, as well as testing the candidate's mastery of one or more specialty areas and/or areas of technical expertise. Students should prepare themselves and their examination committee for the examination, beginning at least three months before the expected date of the examination. The final examination will be conducted by the student's advisor and examination committee, and the scope and structure of the exam shall be determined by the advisor, the committee, and the student. If the student fails to pass the examination, he/she may try once more without penalty, taking the retest during the quarter following his/her failure or at the next available opportunity, whichever is later. Please note that **Plan II Master's students are ineligible for the PhD program.**

NB:

Students must be registered the quarter they take their Master's examination, or they will have to use filing fee status. Registration as a graduate student in the Spring Quarter maintains graduate status until the beginning of the next Fall Quarter. A student who registered in Spring may, therefore, take examinations during Summer without additional fees.

Provide each member of the committee with a copy of your undergraduate and graduate level courses completed or in progress here or elsewhere and a list of the key books and periodical articles which you have already read, grouped into the three areas that you propose for your exam.

The examination will cover your two areas of emphasis (2 systematic areas or 1 systematic and 1 technical area), plus a general examination. A person interested in remote sensing of vegetation may use vegetation geography and remote sensing as the two primary areas and have a general examination in general physical geography. On the human side, a person may be interested in behavioral geography and computer cartography and would take a general examination in general human geography.

The content of these examinations will be based upon course work taken to date (including that taken elsewhere and as an undergraduate if it is relevant), the readings done to date, plus additional readings allocated by the members of your examination committee (no later than ten weeks before you propose taking the examination).

The examinations are usually written over a three-day period. A number may be open-book exams and could be given to you the weekend before. If open-book exams are to be used, you will be notified well in advance of the examination. If closed-book exams are used, they are normally three hours in length. Again, however, this is at the discretion of the individual faculty member who administers the particular examination.

In a committee composed of Loaiciga, Roberts, and Michaelsen, for example, Loaiciga may administer the exam dealing with hydrology. Roberts may administer the remote sensing exam and be responsible for most of the questions. Michaelsen may collect questions for and administer the general physical geography exam. Faculty consults widely and often in preparing the examinations, and it is common for each of them to prepare questions in each of the areas. The format of the written exams, and the way faculty interact, make it important for you to document what your background is and what additional readings you may need to do, so that all parties are of like mind well in advance of the examination.

It will be the explicit responsibility of the chair of your examination committee to ensure that an appropriate balance is maintained between coursework and readings and the examination questions which are asked of you. The burden of documentation and, essentially, of management, however, is yours. It can work most efficiently when you are most organized and keep the faculty members well informed of where you are in the process. Past examination questions are maintained in a department file to enable you to see the types (and relative difficulty) of questions asked. Inspection of these questions will show you that we seek to see how you reorganize and use your existing knowledge when confronted with relatively unfamiliar or downright new situations. The questions are demanding, and not all students pass the written examinations with flying colors the first time around. Actual experience to date is that one-third get through the first time, another third must retake the exam, and the remaining third have parts which need further work either by written or oral examination, or by focused analyses and written responses over a period of weeks or sometimes months. Since the faculty tries to match the student and the exam weakness in a way that best acknowledges the circumstances, the precise nature of additional requirements after the first exam is failed is at the discretion of your committee. To date, nearly all students have passed the exams the second time around, and we see no reason for that record to change drastically. Except in unusual circumstances, the student will be given a written evaluation of the exam within two weeks and, in all cases, no longer than six weeks of finishing the exam.

It is expected that all committee members will grade all questions, although a member may skip questions well outside his/her expertise. Each member will assign one of the following grades to each question: Excellent; Satisfactory; Unsatisfactory

If one or more committee members grades a question as Unsatisfactory, it must be rewritten according to feedback from the committee. An Unsatisfactory section may be rewritten once, in the same quarter or the quarter immediately following the receipt of the written evaluation.

We expect the whole process to work well and with substantial agreement among all parties, and that it will be responsibly administered and equitable for all students taking the exam. Your access to previous questions, your chairperson's unambiguous responsibility to ensure an appropriate balance between areas, and the appropriate level for questions is your and our best assurance of equity in these matters. In the event that you have concerns, which your committee find less persuasive than you do, you may present your concerns to the Chair or the Graduate Committee for review.

Petitioning to Skip the MA and Go Directly to the PhD Program

At a faculty meeting on 5/18/99, the faculty agreed to allow qualified students in the MA/PhD program to skip the MA and go directly into the PhD program. Students must have been enrolled for at least 3 regular academic quarters. The petition requires the approval of the student's committee. Attached to the petition should be:

- A letter of justification from the committee chair
- PhD Form I, which officially nominates the PhD Committee
- A PhD proposal

The petition requires the approval of the Graduate Committee. Those students who wash out after taking their written and orals will be converted to the MA II (exam) route.

Master's Degree – Forms, Hoops, and Bureaucratic Procedures

Many of these forms can be found at: <http://www.graddiv.ucsb.edu/pubs/>

Plan I - Thesis Route

Steps 1-3 should be completed by the student:

1. Check unit/course requirements: Check your transcript to make sure that you have fulfilled all course and unit requirements for the degree; that you don't have any Incompletes, NG, or NR grades on your record; and that you have a cumulative GPA of at least 3.0. Don't wait until the day you file your thesis to do this!

2. File Master's Form I - "Nomination of Thesis Committee for Master's Degree Candidates." Ideally, this form should be filed no later than the **beginning of the quarter in which you plan to graduate**. Form I requires the approval of the department Graduate Advisor, the Department Chair, and the Graduate Dean. Type (or print legibly) the names and titles of the committee members on the form. If you wish to change a member or members of your committee after Form I has been filed and approved, you need to submit **Committee Form I-A - Changes in Thesis or Dissertation Committee**.

3. File your Master's Thesis with the Graduate Division (2 copies on 100% cotton bond paper) and the Department (1 copy, which does not have to be bound or on 100% cotton). The thesis approval/signature page must include the signatures of all members of your committee as listed on Master's Form I. **The UCSB Guide to Filing Theses and Dissertations can be found at: <http://www.graddiv.ucsb.edu/pubs/filingguide.htm>.** While it is not required that you give a copy of your thesis to your committee members, it is customary.

After Steps 1-3 have been completed by the student, the Graduate Program Assistant will ask the chair of the committee to complete Form C1. Form C1 indicates that all requirements have been met, that there are no Incompletes/NR/NGs on the record, and that the thesis has been approved and filed, and it makes a recommendation on admission to the PhD program. Then the Graduate Advisor or Department Chair authorizes the Graduate Division to award the degree on Form C2 (p. 53). **The Department WILL NOT authorize the Graduate Division to award the degree until Steps 1-3 have all been completed.**

Plan II - Examination Route

The Master's degree by examination is a terminal degree. Continuation into the PhD program is not permitted.

Steps 1-2 should be completed by the student:

1. Check that unit/course requirements have been met. Check your transcript to make sure that you have fulfilled all course and unit requirements for the degree; that you don't have any Incompletes, NG, or NR grades on your record; and that you have a cumulative GPA of at least 3.0. Don't wait until the day you are planning to leave to do this!

2. File Form B - "Nomination of Examination Committee for the Degree of Master of Arts." This form should be filed in the department as soon as you know who will be on your

committee; at the very latest, this form should be filed at the beginning of the quarter in which you plan to take the exam and always **before** you take the exam.

After Steps 1 & 2 have been completed and you have successfully passed the final examination, the Graduate Program Assistant will ask the examination committee chair to complete Form D1, indicating that the degree should be awarded and that all requirements have been met. Then the Graduate Advisor or Department Chair authorizes the Graduate Division to award the degree on Form D2.

Filing Fee: All graduating students must be in a fee relationship with the university; that is, either registered or on an official filing fee leave of absence with the Graduate Division. The filing fee is a reduced fee paid instead of full registration fees for the quarter during which a student is completing the last requirements for a degree, and it is equal to half of the “registration fee” or roughly \$150. **Paying the filing fee terminates graduate status;** therefore, it may be used only by PhD students and terminal Master’s degree students (those NOT planning to continue into the PhD program). Students should not pay the filing fee until they have completed all requirements for the degree. **If you are registered during the quarter in which you plan to complete and graduate, then you do NOT have to pay a filing fee when you file your thesis or dissertation because you are already in a fee relationship with the university.** If you finish during the Summer and you were enrolled during the previous Spring Quarter, you do not have to pay the filing fee because your enrollment status technically lasts until the day before the next regular academic quarter begins (i.e., the day before Fall Quarter begins).

Transfer From/Continuation Into The PhD Program

Upon completion of the requirements for the Master’s degree, the student’s thesis committee Chair will submit a recommendation to the department regarding admission to our PhD program. Based upon this recommendation, the Graduate Committee will then decide if the student should be allowed to continue in the PhD program. Even if you were admitted originally as a MA/PhD student, this review must take place and a favorable recommendation made before you are allowed to continue. If you were not admitted to the MA/PhD program when you originally applied to UCSB, you must submit a “**Graduate Student Petition**” form, available from the Graduate Division (or you can download a copy at: <http://www.graddiv.ucsb.edu/pubs/>). The Graduate Committee will meet to decide on transfers, just as they decide on regular admissions, and the petition will not be signed until this has been done. When the petition has been signed and approved, the Graduate Committee will notify the Graduate Division officially of your acceptance into the Geography PhD program. You should petition to add the PhD at the time you file your thesis with the Department or immediately thereafter; if you wait too long, you could be required to apply for reinstatement.

Maximum Time/Normative Time for the MA/PhD Program

The time limit for completion of a doctorate is **7 years**, measured from the time a student begins graduate study at any level at UCSB. The time limit for completion of the doctorate differs from normative time. **Normative time** for completion of the PhD degree, when entering the department without a Master’s degree, is **6 years (or 18 quarters)**. If you exceed the 7-year maximum before completion of the PhD degree, you must petition for extension of the deadline.

PhD Program

A variety of PhD programs can be generated, based on selections of major systematic study (Earth System Science and Human Geography) and minor technique (Modeling, Measurement, and Computation) emphases. All PhD students must major in a systematic area of study and are expected to develop great depth in one or more technical areas, but will be tested only in one technical area. No foreign language is required.

Admission Requirements

In addition to fulfilling the general requirements for admission to graduate status, the Department requires a Master's degree for most students entering the Doctoral program. In unusual circumstances, highly qualified candidates may be directly admitted without a prior Master's degree. Students applying to the department with an undergraduate degree only are encouraged to apply for the MA/PhD program if the PhD is their final degree objective.

Residency Requirement for the PhD Degree

Students in doctoral programs must enroll for at least **6 regular academic quarters**. Three consecutive quarters of residence must be completed prior to advancement to candidacy. If you were enrolled in the MA/PhD program and you were registered for 6 quarters as a Master's student (including 3 consecutive quarters), you do not have to enroll for another 6 quarters to satisfy the residency requirement.

Continuous registration is expected of all graduate students. Under special circumstances, students may request a leave of absence from the Dean. Students who are neither registered nor on an approved leave of absence lose all status and privileges as students, cannot hold fellowships or other forms of financial support, and must apply for reinstatement (and, when applicable, re-advancement to candidacy).

Maximum Time/Normative Time for the PhD Degree

The University sets time limits called degree deadlines for completion of the Master's and doctoral degrees. Doctoral candidates in all fields are expected to complete their degree requirements within 7 years. This is the maximum time allowed. The University's 7-year degree deadline for completion of a doctorate is distinct from normative time, which is the number of years considered to be reasonable by the faculty of an individual department for completion of a PhD by a full-time student in that program. The Geography Department established a normative time for completion of the PhD at 6 years for those entering without a Master's degree, and 5 years for those entering with a Master's degree. Normative time is measured from the time a student begins graduate study at any level at UCSB. In the case of Leave of Absence for medical, family emergency, or pregnancy/parenting reasons, three quarters Leave of Absence are permitted, in which no time shall accrue toward the normative time deadline. More Leaves of Absence or periods of lapsed status will not stop the student's normative time clock. The Department will enforce these rules and approve exceptions only under unusual circumstances.

If you exceed the 7-year maximum before completion of the requirements for the PhD, you must petition the Graduate Council for a degree deadline extension. The Graduate Council is concerned that degrees be granted only to students who are current in the scholarship of their fields and who have kept abreast of the literature and research in the discipline. The nature of the

petition depends on the length of time by which the degree deadline has been exceeded. If the degree deadline has been exceeded by less than two years, a Graduate Student Petition requesting the extension, endorsed and signed by the Graduate Advisor, must be submitted. Approval of such petitions will typically be routine. If the deadline has been exceeded by more than two years, a Graduate Student Petition requesting the extension, endorsed and signed by the Graduate Advisor, must be submitted. The petition must be accompanied by a memo documenting and certifying currency in the field, signed by all members of the dissertation committee. The Graduate Council has identified continuous registration, teaching or research apprenticeships, or contact with current literature and research in the field as examples of currency. If additional information is needed, the Graduate Division will contact the Graduate Advisor. Approval of such petitions may be considered by the Chair of the Graduate Council or referred for inclusion on the Graduate Council agenda, as necessary. Petitions are available from the Graduate Division or can be downloaded at: <http://www.graddiv.ucsb.edu/pubs/>.

Required Courses

Students in the PhD program are expected to complete the degree requirements in effect at the time they are admitted to the program, though they may elect to follow a subsequent set of requirements.

Geography 201 - Seminar in Geography (required every quarter offered until advancement)

Geography 200A, B and C - Introduction to Geographic Research, normally taken during 1st year

Geography 210A, B and C - Analytical Methods in Geography

Strongly recommended:

Geography 276

Geography 500 (T.A. Training, required for all Teaching Assistants)

Geog 210A, B and C: Students may petition out of 210A, B, and C if a) they have taken Geog 172, or b) they have taken the equivalent elsewhere or will take its equivalent from another department on campus, or c) their faculty advisor does not feel the student needs the courses.

Geog 500: All PhD students must TA 1 quarter--so they all must take Geography 500 if they haven't already taken it as an MA student.

In addition, all doctoral students must have basic computational skills and knowledge of spatial analysis. These requirements will be filled through courses selected by the student and his/her major advisor.

To petition out of a department requirement, you need to submit a **Petition for Graduate Degree Requirements** which justifies/explains your request for exemption, have it endorsed/approved by your PhD Committee chair, and then submit it to the Graduate Advisor for approval.

The PhD Committee

The PhD Committee in the Geography Department consists of **four members**, of which at least **three** must be **UC ladder faculty members**, two of which must be from the Geography Department (or who hold an Affiliated appointment in the Geography Department), one of whom

will be appointed as the chair or co-chair; and **one** member must be from outside the discipline of Geography (i.e., the outside member should not have a PhD in Geography nor work in a Geography Department). If the outside member is not UC faculty, you should include a short c.v. with the PhD Committee nomination form. Additional members may be added to the committee beyond the four required where appropriate.

Any three or more members of the PhD Committee (including the chair of your committee and at least one additional member from the Geography Department) constitute an examining committee for administering the oral or written exam. The dissertation requires the signatures of **all** members of the PhD Committee, as nominated on PhD Form I. If there is one or more member of your committee who will not be participating in your written or oral examinations but will be serving as a reviewer for your dissertation only, you should clearly indicate that on Form I (Nomination for Qualifying Examinations for the Degree of Doctor of Philosophy). The Committee requires the approval of the Department Graduate Advisor, Chair, and the Graduate Dean.

Ladder faculty who retire when a student's dissertation is still being written may continue to serve on and chair the committee in question without any further approval or re-approval being needed. In instances where the faculty member retires before the Doctoral Committee is nominated, the retired faculty may serve as a second or third member without special approval from Graduate Division. Graduate Council approval is required when the faculty member who has retired is being nominated to serve as chair of a Doctoral Committee and the student has not yet advanced to candidacy or started dissertation work. Emeriti faculties who continue with the University as "research professors" enjoy the same committee privileges and may chair committees without special approval.

Requirements of the PhD Program

For advancement to candidacy, the Geography Department requires:

- A diagnostic interview
- A written comprehensive examination
- An approved dissertation proposal
- An oral qualifying examination

Diagnostic Interview

All PhD students (including those who transfer or continue in the PhD program after completing their Master's degree in the Geography Department) will be required to take a diagnostic interview to assist in the preparation for undertaking a doctoral program in Geography. The interview will normally be oral and last about an hour. Two professors, appointed by the departmental Graduate Committee, will be responsible for administering it; however, any department faculty member may also participate, should he or she so elect. Although the student's primary area of interest will be emphasized, students should anticipate questions which will probe their general knowledge of the entire field of geography; thus, a systematic review of geography coursework may be helpful in preparing for the interview. Within ten days of completion of the diagnostic interview, the student will receive an analysis of the results of the interview from the chair of the examining committee, assessing strengths and weaknesses, and suggesting coursework or independent study by which such weaknesses may be strengthened. A

copy will also be lodged in the department files. The interview will normally be administered during the first quarter of the student's residence.

Students must be registered the quarter they take qualifying exams. Registration as a graduate student in the Spring Quarter maintains graduate status until the beginning of the next Fall Quarter. A student who registered in Spring may therefore take examinations or file a dissertation during Summer without additional fees. A student who did NOT register Spring Quarter, however, will have to use filing fee status to file a dissertation, and may NOT take PhD qualifying examinations in the Summer unless he/she registers in Summer session.

Written Qualifying Examination

The student's Doctoral Committee will administer the written qualifying examination. PhD written exams will conform to the following standards, as voted on and approved by the faculty on 5/18/99:

3 days, 3 examiners, 2-3 questions per day. Student should be given **24 hours** to answer each day's questions.

The questions should be **coordinated and reviewed by the Chair** of the committee before being given to the student.

Open book, including access to the Web and the Library/Melvyl: the Department should provide special assistance for disabled students.

Questions will not be given in advance.

The exam should be structured to test the student's knowledge, research skills, problem solving skills, and the student's ability to do academic work. The content of the questions is a matter of suggestion, but, ideally, they should include general geography, techniques, and the student's systematic area of study.

Past examination questions are maintained in a department file so that you may see the types (and relative difficulty) of questions asked. To aid in preparation for the examination, the Department will provide a reading list (see Appendix B). The reading list is simply a guide for study, and should not be interpreted as a catalogue of required knowledge. Consult with the chair of your committee for additional suggested reading. The written qualifying examination will normally be administered in the student's fourth, fifth, or sixth quarters of his/her residence. Following administration of the examination, the faculty will evaluate the student's performance in each section. **Except in unusual circumstances, the chair of the student's dissertation committee will provide the student with a written evaluation of the examination within 2 weeks, and, in all cases, no longer than 6 weeks of finishing the exam. It is expected that all committee members will grade all questions, although a member may skip questions well outside his/her expertise. Each member will assign one of the following grades to each question: Excellent; Satisfactory; Unsatisfactory**

If one or more committee members grades a question as Unsatisfactory, it must be rewritten according to feedback from the committee. An Unsatisfactory section may be rewritten once, in the same quarter or the quarter immediately following the receipt of the written evaluation.

Dissertation Proposal

Prior to the student's oral qualifying examination, the student will prepare a dissertation proposal which describes the dissertation topic, summarizes the relevant background literature, and presents a comprehensive research plan for the student's doctoral dissertation, including a timetable and budget which identifies any financial support essential to preparation of the dissertation. All members of the student's Doctoral Committee must approve this proposal. Students should be aware that the first draft of the proposal is unlikely to be accepted as is. Several drafts are usually necessary. Proper and correct use of the English language is required for the proposal.

Oral Qualifying Examination

Having successfully completed the diagnostic interview and written comprehensive examination, the student's doctoral committee will conduct an oral qualifying examination, based on a draft proposal for doctoral research. It is expected that the oral exam will take place soon after the written exam, normally within four months following the successful completion of the written exam. Graduate Division regulations require that three consecutive quarters of residence must be completed prior to taking the oral qualifying exam. Thus, the oral will normally be taken in the fourth, fifth, or sixth quarters of residence. The general objective of this examination is to ensure that the student has a satisfactory proposal for dissertation research, and that the student possesses the full knowledge and competence required to carry out his or her dissertation research. Upon successful completion of the oral exam, a student who carries out the program of research agreed upon by the committee will be entitled to the PhD degree, assuming the research is carried out with demonstrated quality, is written up satisfactorily for the dissertation, and is defended satisfactorily at the doctoral defense. Thus, the examination will emphasize (but not necessarily be limited to) the systematic and technical areas relevant to the student's proposed dissertation research, and the viability and relevance of the specific elements of that research. Following the examination, the committee members shall vote "Pass" or "Fail" on the student's level of preparation. A unanimous passing vote is required for advancement to candidacy. This examination is usually open only to voting committee members.

Advancement to Candidacy

A student is advanced to candidacy for the PhD after completing all course requirements and residence requirements, passing the written and oral qualifying exams, filing PhD Form II, and paying the \$90.00 advancement to candidacy fee. Students with Incompletes, NG, or NR grades on their record are ineligible to advance to candidacy until such grades have been removed. Following advancement, the student will normally devote full-time effort during the academic year to carrying out the research for, and writing of, the doctoral dissertation. Graduate Division regulations require that the student be registered and enrolled continuously during this time.

Students are reminded that they have until the last workday before the next quarter officially begins (as indicated in the quarterly Schedule of Classes) to officially advance to candidacy, including paying the \$90.00 advancement fee. P2 status is conferred by the Registrar's Office the next registered quarter.

International Students: The annual nonresident fee is reduced by 100 percent for graduate doctoral students who have advanced to doctoral candidacy, subject to the understanding that (a) a graduate student may receive the reduced nonresident fee rate for a maximum of three

continuous years, and (b) any such student who continues to be enrolled or who re-enrolls after receiving the reduced fee for three continuous years will be charged the full nonresident fee rate that is in effect at the time.

Beginning Fall 1995, the Graduate Council approved a **four-year time limit for advancement to PhD candidacy for all graduate students**. Any exception to the policy must be requested by the home department on behalf of each graduate student.

Dissertation and Open Defense

Following the completion of doctoral research, each candidate for the PhD degree must present a dissertation demonstrating the ability to contribute significantly and independently to the major field. The candidate's Doctoral Committee guides the student in this work and judges the merit of the completed dissertation. Approval of this dissertation by each member of the Doctoral Committee is required for the degree (Academic Senate Reg. 355B). After receipt of the final draft of the dissertation, a formal oral defense will be scheduled and announced to the department as a whole. The purpose of the defense will be to clarify segments of the dissertation and/or acquaint the candidate with the nature of any further work that needs to be undertaken prior to approval of the dissertation. The Graduate Division cannot award a degree until a Doctoral Form III is received from the department indicating that the student has successfully defended the dissertation. All approved committee members must sign Form III. These signatures must be the same as the signatures appearing on the approval pages of the dissertation (it's a good idea to circulate Form III at the same time that the approval pages are circulated for signatures). A public lecture (Colloquia) is encouraged to present the results of the doctoral research to the entire University community. The defense may be waived only in unusual circumstances, with the unanimous consent of the candidate's Doctoral Committee and the Department Chair, using Doctoral Form III-A (Senate Regulation 355C).

Teaching Requirement

All doctoral candidates must teach (usually in the capacity of a Teaching Assistant) a minimum of one quarter at some time before being granted the PhD degree.

Cognitive Science PhD Emphasis

Students pursuing a PhD may petition to add an emphasis in cognitive science. The interdisciplinary program in Cognitive Science involves faculty from the PhD programs in Anthropology, Computer Science, Education, Electrical and Computer Engineering, English, Geography, Linguistics, Philosophy, and Psychology. Its goal is to give students an appreciation of the interdisciplinary study of thinking, perception, and intelligent behavior, as determined jointly by the nature of the environment and by the internal architecture of the intelligent agent, whether human, animal, or machine. The program features a structured set of courses, which are taught individually and collaboratively by faculty from a variety of disciplines.

Students who petition to add the emphasis in cognitive science must fulfill the following requirements in addition to the requirements of the PhD in their home departments: (1) participation for at least three quarters in proseminar Interdisciplinary 200A-C; (2) completion of at least three cognitive science elective courses with one each in three different departments; (3) completion of either (a) a research project, completed before the dissertation, resulting in a publishable paper, or (b) an extramural grant proposal for a study in cognitive science suitable

for submission to an identified granting agency; (4) presentation of a research paper in a suitable academic forum, such as an emphasis or departmental colloquium, or a professional meeting; and (5) a PhD dissertation centrally focused on a question emerging from cognitive science with at least two committee members representing faculty participating in the cognitive science interdisciplinary emphasis.

Quantitative Methods in the Social Sciences (QMSS) PhD Emphasis

Students pursuing a PhD in this department may petition to add an interdisciplinary emphasis in Quantitative Methods in the Social Sciences (QMSS). This interdisciplinary emphasis involves faculty from the PhD programs in Communication, Economics, Education, Geography, Political Science, Psychology, Sociology, and Statistics and Applied Probability. The areas of specialization of the participating faculty include advanced regression modeling techniques, multivariate statistics, bootstrap estimation methods, demography, econometrics, psychometrics, social network theory, mathematical psychology, spatial statistics, survey research, and educational and psychological assessment. The QMSS emphasis helps students to attain the competencies needed to conduct quantitative social science research through core design and analysis classes, courses in advanced and specialized methodologies, and participation in interdisciplinary colloquia and research projects.

Each admitted student will develop, with his or her advisor, an individual contract listing the QMSS requirements to be completed. The contract must include the following:

- One year of calculus, one course in linear algebra, and a one-year statistics sequence (these requirements can be waived if equivalent courses have already been completed).
- Attendance for at least three quarters at the ongoing QMSS seminar series, including the presentation of at least one paper.
- Completion of at least three quantitative methods courses (excluding those listed above), at least two of which are outside the student's home department.
- A PhD dissertation that is centrally focused on an issue that is appropriate to the QMSS emphasis. The dissertation may make a contribution to methodological theory or may involve an advanced or innovative application.
- A dissertation committee that includes at least one QMSS faculty member from outside the student's home department.

Transportation PhD Emphasis

Transportation Modeling and Simulation (TMS) is a specialty in the geography department integrating the three principal areas of training: Earth System Science (ESS); Modeling, Measurement, and Computation (MMC); and Human Environment Relations (HER). This special emphasis provides training in the methods used in transportation systems planning, design, and operations with key focus areas on data collection, modeling, and simulation. A variety of courses are available within the specialty, and students belonging to the specialty have many opportunities for fellowships and research grants supporting their dissertation research. The specialty has required courses that are tailored to individual student background and research plans. Admission to this specialty follows the same criteria as the Department of Geography. For more information, please contact the coordinator: Kostas Goulias at goulias@geog.ucsb.edu.

Individual Interdisciplinary PhD Program

The Individual Interdisciplinary PhD Program (IIDPP) is not mentioned in the General Catalog. The Graduate Council believes students for whom it is a good option will come upon it by word of mouth or by faculty referral. The number of students admitted to this program is extremely limited. The IIDPP is meant to provide outstanding graduate students with an opportunity to pursue advanced research which cannot be accommodated easily within the confines of an established PhD program. Applicants for an IIDPP must normally have completed at least one year of graduate study at UCSB. Guidelines initiated in 1986 are available in the Graduate Division. Students must have strong faculty support on campus and a track record in research. Successful candidates must be admissible to an already established program on campus, propose a program in which the advancement-to-candidacy procedure is at least as rigorous as that of the department in which he/she is working, and offer convincing arguments that the proposed program cannot be accommodated in a regular department. The emphasis should be on interdisciplinary research methods, not topics, since almost any topic can be approached in an interdisciplinary way. This program should never be used as an alternative degree path for students who are drifting and without focus. In general, interdisciplinary degrees are harder and take longer than standard degrees.

PhD Degree – Forms, Hoops, and Bureaucratic Procedures

Please keep in mind that you are ultimately responsible for making sure that all forms, fees, documents, etc. are filed in order to fulfill the requirements of the degree (many of these forms can be found at: <http://www.graddiv.ucsb.edu/pubs/>). Please be sure that Steps 1-5 are all completed:

1. File PhD Form I - “Nomination of PhD Committee,” with the Graduate Division. This form should be filed as soon as you know who will make up your official PhD Committee. It must be approved and on file BEFORE taking written and oral examinations. The form should include the names of all members of your committee. Type (or print legibly) the names and titles of the committee members on the form. Be sure to indicate on the form if any members will serve as a reviewer for your dissertation only. The form requires the approval of the departmental Graduate Advisor, the department Chair, and the Graduate Dean. If you are including any members that are not UC faculty, be sure to attach a C.V. or other information describing the person’s qualifications. If you wish to change a member or members of your committee after Form I has been filed and approved, you need to submit Committee Form I-A - Changes in Thesis or Dissertation Committee.

2. File PhD Form II - “Report on Qualifying Examinations for the Degree of Doctor of Philosophy.” Take the form with you to the oral examination. You should obtain signatures from your committee members on Form II immediately following successful completion of the oral examination. Take the completed Form II to the Cashier’s Office, pay the \$90 advancement to candidacy fee, and then file it with the Graduate Division. This form officially advances you to candidacy. You will not be permitted to advance to candidacy if you have an Incomplete or “No grade” on your record - no exceptions.

3. See the Graduate Program Assistant to check course requirements: Check your transcript to make sure that you have fulfilled all course requirements for the degree; that you don’t have any Incompletes, NGs, or NRs on your record; and that you have a cumulative GPA of at least 3.0.

4. File PhD Form III - "Report on Final Examination for the Degree of Doctor of Philosophy." The Graduate Division cannot award the degree until a Doctoral Form III is received from the department indicating that the student has successfully defended the dissertation. All approved committee members must sign the Doctoral Form III. **These signatures must be the same as the signatures appearing on the approval pages of the dissertation.** Because your dissertation approval page and Form III require the same signatures, if at all possible, **CIRCULATE THEM TOGETHER!** The defense may be waived only in unusual circumstances, with the unanimous consent of the candidate's Doctoral Committee and the Department Chair, using Doctoral Form III-A.

5. File two (2) copies of the dissertation with the Graduate Division, and (1) copy of the dissertation with the department. (*Please note: students have the option of filing one dissertation copy with the Graduate Division electronically*). The Department copy of the dissertation DOES NOT have to be on 100% cotton paper. The approval pages must include the signatures of all members of your PhD Committee as listed on PhD Form I. **The UCSB Guide to Filing Theses and Dissertations can be found at:** <http://www.graddiv.ucsb.edu/pubs/filingguide.htm>. While it is not mandatory for you to give a copy of your dissertation to your committee members, it is customary.

Filing Fee: All graduating students must be in a fee relationship with the university, that is, either registered or on an official filing fee leave of absence with the Graduate Division. The filing fee is a reduced fee paid instead of full registration fees during the quarter a student is completing the last requirements for a degree and is equal to half of the registration fee or roughly \$150.00 (subject to change). **Paying the filing fee terminates graduate status;** therefore, it may be used only by PhD students and terminal Master's degree students (those NOT planning to continue into the PhD program). Students should not pay the filing fee until they have completed all requirements for the degree. **If you are registered during the quarter in which you plan to complete and graduate, then you do not have to pay a filing fee when you file your thesis or dissertation because you are already in a fee relationship with the university.** If you finish during the summer and you were enrolled during the previous Spring Quarter, you do not have to pay the filing fee because your enrollment status technically lasts until the day before the next regular academic quarter begins (i.e., the day before Fall Quarter begins).

Special Preparation For Careers in Teaching

There is no required preparation for a career in teaching, but many graduate students will have the opportunity to serve as Teaching Assistants. All graduate students will be required to give oral presentations in seminars and will be encouraged to give oral presentations of their research at various time intervals before the geography faculty and graduate student body. This exposure to public and semi-public speaking, together with the comprehensive study program, should provide the student with teaching experience and with capabilities in course preparation. Ph.D. students interested in further preparation for careers in teaching may wish to obtain the Certificate in College and University Teaching: <http://www.graddiv.ucsb.edu/academic/ccut/>. Additionally, there are many resources for Teaching Assistants and Instructors available through Instructional Development here on campus: <http://oic.id.ucsb.edu/>.

Fees/Tuition

The following figures are for Fall **2010** only. Current fee information can be found at: <http://www.registrar.ucsb.edu/feeinfo.htm>:

Quarterly Fees	Residents	Non-residents
Fees	\$3,674.58	\$3,810.58
Health Insurance (GSHIP)	\$681.00	\$681.00
Tuition		\$4,898.00
TOTAL	\$4,355.58	\$9,389.58

Fee Deferral: Students may defer the payment of a quarter's fees by filling out a "promise to pay" agreement at the BARC Office. Depending on the student's circumstances, fees may be divided into three equal monthly installments, or they can come due in a lump sum at a specified date. A fee deferral or promise to pay obligates the student to register. If, after signing a promise to pay, the student decides to take a leave of absence rather than register, she/he must inform the BARC Office, Registrar, and Graduate Division of this decision. If the BARC Office is not informed of the student's change in plans, the fees will remain on the student's account and the student will return from a quarter's leave owing two quarter's fees.

Financial Support

The Department has control over a moderate level of support, which it distributes on the combined factors of merit and need. You can get financial support information on the internet **via the Graduate Division's Web homepage:** <http://www.graddiv.ucsb.edu/financial/>. There you will find information about campus competitions and deadlines, National Fellowship Competition Announcements, hot links to funding sources and databases, and access to the IRIS database, including search capability.

Employment: All employment is now processed electronically. If you anticipate getting employed anytime while you are here on campus, please keep the following in mind: **Federal law requires employers to certify that everybody they hire is legally entitled to work in the U.S. This law applies to everyone** - native-born American citizens as well as immigrants, foreign visitors, and naturalized citizens. If you intend to work for pay for any employer, either on or off campus, you must provide documentation of your eligibility to work before you can be hired or re-hired. No one will be hired or re-hired at UCSB for any position, including academic appointments (Teaching Assistants, Graduate Student Researchers, etc.), without proof of eligibility to work. To avoid delays in hiring dates, late checks, etc., be prepared to show appropriate papers when you arrive on campus.

Merit-Based Support:

Application Deadline (continuing students):

Fellowships provide funds to support the living and educational expenses of graduate study. If you apply for this merit-based assistance, your application will be judged on the basis of the quality of your previous academic work, on the evidence of your ability to do research and other creative accomplishments, and on your promise of becoming a productive scholar. Except in unusual circumstances, applications for fellowships are considered only once a year, and awards

are made for the academic year beginning with the Fall Quarter. Fellowships can come in the form of a 4-year guarantee of support (Regents Special Fellowship, Eugene-Cota Robles Fellowship, Doctoral Scholars Fellowship), or a 1-year fellowship (Graduate Opportunity Fellowship), or the payment of fees and non-resident tuition (Block Grant). If your fellowship includes the payment of fees and/or tuition, payments will be credited directly to your billing account prior to payment deadlines. Read the award letter carefully, and contact the department if you have questions.

Supplementation Policy: Theoretically, students who have been awarded fellowships have won awards that enable them to spend the majority of their time studying. Additional financial need should be minimal and easily covered by quarter-time employment that will not impede progress to the degree. The supplementation policy, therefore, is designed primarily to ensure that excess employment will not impede fellowship holders' graduate studies and, secondly, to encourage a distribution of university support funds among the best students. The rule of thumb, unless specifically stated, is that the maximum dollar amount a student may earn from the university during the academic year may not exceed the amount of a full fellowship, plus fees (excluding nonresident tuition), plus a 25% Teaching Assistantship (Summer earnings are not counted into the supplementation policy).

Graduate Student Academic Appointments: Academic appointments are the single largest component of graduate student support at UCSB. Appointments are also a key element of graduate training and an opportunity for mentorship by UCSB faculty. Graduate student titles include: Graduate Student Researchers (GSR), Teaching Assistants (TA), Associates, and Tutors. To be eligible for any appointment, students must be:

- Currently registered graduate students, enrolled in at least 8 units (the department requires 12 units).
- In good academic standing (i.e., 3.0 GPA and fewer than 12 units of Incomplete/NR/NG grades) and not on academic probation or subject to dismissal.
- Chosen for academic appointment on the basis of high scholastic standing.
- Certified as having language proficiency in spoken English if their native language is not English. Detailed procedures about the ELPE, "Minimum Proficiency Requirements in Spoken and written English," and the TA Language Evaluation Exam are outlined under English as a Second Language (ESL) on the graduate application webpage www.graddiv.ucsb.edu/admissions/application/ and on the international student webpage at www.graddiv.ucsb.edu/admissions/international/.
- NB: As of 3/26/09, Computer-based TOEFL scores are no longer valid. ETS's last administration of the CBT was 30 September 2006. Therefore, because all TOEFL scores are only valid for two years, all CBT scores are no longer valid as of October 2008. Internet-based TOEFL (iBT) and Paper-based TOEFL (PBT) scores are still accepted (minimum 80 and 550 respectively).

Appointments or combined appointments are limited to 50% time (15-20 hours per week) during the academic terms. The Department Chair may ask for an exception for a graduate student to be compensated to a maximum of 75% for total service on campus. Per Graduate Council policy, exceptions to appointment percentage can only be considered if the student is within the major program's normative time and should be submitted for the approval of the Graduate Dean in advance of the appointment. The 50% time restriction will apply without exception for most

international students, dependent upon their visa type or country of origin (consult OISS or Graduate Division for details). All continuing students may work 100% time during the Summer.

Teaching Assistantships: A TA is chosen for excellent scholarship and for promise as a teacher, and he/she serves an apprenticeship under the active tutelage and supervision of a regular faculty member. Teaching Assistantship awards for the following academic year are made in March-April (only those who receive TA support will be notified). Normally, we support between 25-30 graduate students each year on full (50% time) or partial (25% time) Teaching Assistantships. Teaching Assistantships provide financial assistance as below (all figures are gross salary):

25% TA		50% TA	
Monthly Salary:	\$924.28	Monthly Salary:	\$1,848.56
1 quarter	\$2,772.83	1 quarter	\$5,545.67
2 quarters	\$5,545.67	2 quarters	\$11,091.33
3 quarters	\$8,318.50	3 quarters	\$16,637.00

Note: using the 10/1/09 salary scales from Academic Personnel.

Pay periods:

Fall quarter: October 1 – December 31

Winter quarter: January 1 – March 31

Spring quarter: April 1 – June 30

TAs must be **registered graduate students**. You must take Geography 500 (T.A. Training) in order to be a TA (during your first quarter here, you will be allowed to TA as long as you are enrolled in Geography 500 at the same time). Teaching Assistants are paid once a month, on the first of the month, for service rendered the preceding month. If you begin in Fall Quarter, your first paycheck will be issued on **November 1**. It is possible, however, to arrange to have your first paycheck on October 1; the salary is divided over 4 months instead of 3 for Fall Quarter in that case. You may borrow up to the amount of your first paycheck 30 days prior to the date of your first paycheck through the TA loan program. To apply for a TA loan, obtain proof of your employment from the department and take that to the Financial Aid Office.

The total length of service rendered in any one or any combination of the following titles may not exceed four years [12 quarters]: Reader on annual stipend, Teaching Assistant, Teaching Fellow, and/or Associate. Under special circumstances, the Chancellor, upon recommendation of the department chairperson and the dean of the school of college, may authorize a longer period, but in no case for more than six years [18 quarters].

Teaching Assistantship awards may be renewed after careful review of actual teaching performance. Such positions entail duties related to upper division course laboratory sections and discussion sections of lower division Physical Geography and Human Geography. The department believes that teaching experience is a valuable part of graduate education and strives to allow each student some T.A. service. **At least one quarter of Teaching Assistant or equivalent experience is required of all PhD students.**

UAW Bargaining Agreement for Academic Student Employees (ASE)

The University of California and the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) have agreed to a one year agreement which

will be effective October 1, 2009 through September 30, 2010. The current contract is at this link:

http://atyourservice.ucop.edu/employees/policies_employee_labor_relations/collective_bargaining_units/academicstudentemployees_bx/agreement.html.

Graduate Student Researchers (GSR)

A GSR is a graduate student who assists faculty members with scholarly research. GSRs are selected for high achievement and promise as creative scholars; they may collaborate in the publication of research results as determined by supervising faculty members. GSRs may not be assigned teaching, administrative, or general assistance duties. Between 30 and 40 GSR appointments are available each year, depending on the level of extra-mural support the department has received through proposals submitted by the faculty. Generally, these are given to students after one year in residence, but occasionally may be provided on initial enrollment. GSR appointments are arranged on an individual basis between the student and a faculty member who is a Principal Investigator on a grant and generally cannot be “applied” for as one would a Teaching Assistantship or Fellowship. A graduate student must be registered in the Spring to be eligible for a Summer GSR appointment.

The department expects that students about to embark on thesis/dissertation research will work with their faculty advisor on research proposals in order to secure this form of support if it is not already available.

GSR appointments provide financial support as follows (October 1, 2009 salary scale):

GSR Level	Monthly	Hourly	Department Policy*
Step I	\$2,702	\$15.53	1 st yr M.A.
Step II	\$2,912	\$16.74	2 nd year of > M.A.
Step III	\$3,229	\$18.56	1 st year PhD w/M.A.
Step IV	\$3,488	\$20.05	2 nd year of > PhD
Step V	\$3,720	\$21.38	Advanced to Candidacy

*These are Department of Geography guidelines only (P.I.’s are not required to follow them). Other departments/ORUs are not required to follow them.

GSRs must be registered graduate students and are paid once a month on the first of the month. GSRs using a work-study allocation must be hired on an hourly rate.

Employment Benefits for TAs & GSRs:

Employment at different percentages as a TA or GSR includes certain employment benefits. Most notably, payment of the Graduate Student Health Insurance Premium (GSHIP), partial fee remission, or payment of full fees and nonresident tuition where applicable. The table below indicates the most common combinations of employment and the benefits associated with them for the current academic year (2009/2010):

24% TA or GSR or below	No GSHIP, no remission
25% TA & 25% GSR combination	GSHIP, Partial fee remission*
25% to 34% TA or GSR	GSHIP, Partial fee remission*
35% GSR and over	GSHIP, full fees, nonresident tuition where applicable
49% GSR	GSHIP, full fees, nonresident tuition where applicable
50% TA	GSHIP, Partial fee remission*

*100% of the education and registration fee only, which = \$3,434 (resident) and \$3,570 (non-resident) for Fall 2010.

NOTE: The salary and remissions quoted above are consistent with the terms of the current contract for Fall 2010 only. Please be aware that future wages, terms, and conditions are subject to modification based on the collective bargaining process.

Reader:

Graduate Reader (\$12.72/hr) – Readers are assigned by the department and by a faculty member for assistance in classroom work (normally grading exams, papers). Usually, not more than five hours per week are involved.

Student Assistant Series:

Employment on campus funds (Instructional Development/Academic Senate grants) frequently requires that the student not be hired as a GSR because there are no funds to pay fees or nonresident tuition. Positions in the Assistant series are temporary and less than 50% time or temporary and up to 100% time during Summer and quarter breaks. Positions classified within the Assistant series are reserved for registered undergraduate and graduate students. Work assignments range from simple, routine, and repetitive tasks to complex assignments requiring extensive academic training and/or technical expertise. This series is characterized by the temporary nature of appointments, the general absence of continuing responsibility for work performed, and the diversity of duties which may be assigned. The Assistant series consists of four levels, with the distinction between levels based on the relative degree of difficulty inherent in the manual, clerical, administrative, advising, public contact, technical, professional, and/or research-related duties performed. Students in the Assistant series receive hourly pay for time worked. The departmental policy on the hiring of Assistants is as follows:

Assistant III	9.50-13.50/hr	M.A. students
Assistant IV	11.00/hr and up	PhD students with M.A.

Need-Based Financial Support:

Graduate students may apply for a variety of need-based awards, including work-study and loans through the Financial Aid Office and Need-Based Fee Fellowships through the Department. Students must file the FAFSA (Free Application for Federal Student Aid) each year by the March 2nd deadline and provide the Financial Aid Office with supplemental information as it requests it. The FAFSA is available on-line at www.fafsa.ed.gov or in hard copy at the Financial Aid Office, (805) 893-2432.

Tax Information:

Information and a general discussion of the federal and California state tax status of common sources of graduate student income can be found at:

<http://graddiv.ucsb.edu/financial/taxmemo.htm>. It is not meant to be a substitute for professional tax advice regarding specific individual problems. Students should review available tax materials and make their own decisions about reporting of income, excluding income from taxation, and filing required tax forms. All salaries are taxable income. All gross earnings are reported to both the federal and state tax services. The university is not required either to withhold federal or California state tax or to report fellowship income to the IRS or state tax service. Individuals are required to report this income themselves and to make any necessary arrangements with the IRS and state tax services to make estimated quarterly tax payments on fellowship income.

Establishing Residency - www.registrar.ucsb.edu/residenc.htm

Since out-of-state residents must pay over \$15,000 each year in tuition in excess of what California residents pay each year, California residency is valuable. The Office of the Registrar, using information provided by the student, determines the residency of new students. Out-of-state students who are U.S. citizens cannot expect more than one year of support, since one year on campus is normally sufficient to establish California residence.

There are three basic components of the residency determination process:

1. Physical presence: has the student lived here for at least a year and a day?
2. Financial independence: A student is considered “financially independent” if one or more of the following applies:
 - Is at least 24 years of age by Dec 31 of the year the applicant requests residence classification,
 - Is a veteran of the U.S. Armed Forces,
 - Is a ward of the court or both parents are deceased,
 - Has legal dependents other than a spouse,
 - Is married, or a graduate student or professional student, and will not be claimed as an income tax deduction by his or her parents or any other individual for the one calendar year immediately preceding the term for which the request for resident classification is made.
 - Is a single undergraduate student and was not claimed by his or her parents or any other individual for the two years immediately preceding the term for which the request for resident classification is made.
3. Intent: Has the student demonstrated intent to make California his or her permanent home? Relevant proof of intent includes: obtaining a CA driver’s license and registering your motor vehicle in CA; obtaining a CA identification card; registering to vote and voting in CA elections; using a CA address on W-2 forms and tax returns; paying CA income tax as a resident; establishing and maintaining active bank accounts in CA; registering with the Selective Service in CA; owning residential property or continuously occupying rented or leased property in CA; the presence of spouse, children or other close relatives in CA or obtaining a divorce in CA; applying for loans, scholarships, grants from a CA source. **These steps should be taken immediately upon arrival at UCSB, before the first day of classes!!!**

Your actions during the entire academic year, as well as your actions during the Summer, will affect the determination that is made regarding your residence status for tuition purposes. Students may contact the Office of the Registrar (x3033) for counseling on residency questions. The final authority on residency matters rests with the Campus Residence Deputy in the Office of the Registrar. Students who leave the state, either on leave of absence or with lapsed status, have to file a residency statement when they return or reapply.

Graduate Student Travel Funds are available to students **advanced to candidacy** for the PhD, D.M.A., or M.F.A. and who have been invited to present a research paper at a scholarly meeting or to present the results of research before a distinguished audience. Students are eligible to receive support for one trip during their scholarly career. Applicants must be registered or on an approved leave of absence. Students in joint degree programs are eligible for one-half of the regular allocation. Student applications for travel funds must be accompanied by an abstract of the paper to be presented, a copy of the formal invitation, and a letter of support from the student's advisor indicating the importance of the forum. These limited funds are awarded by the Academic Senate to eligible students on a first-come, first-served basis each fiscal year until all of the funding is allocated. The funding for the year is split into two equal pools: for conference travel between July 1 and December 31, and for conference travel between January 1 and June 30. For information, consult <http://senate.ucsb.edu/grants/>
Monies are available for transportation at the maximum fund limitation:

California	\$350
All other U.S. Locations, Mexico, Canada	\$685
Puerto Rico, Europe	\$1,030
Central or South America	\$1,200
Asia, Africa, Middle East, South Pacific	\$1,400

Participation on Department and Campus Committees:

The Graduate Students Association (GSA) is the elected representative government for UCSB graduate students. They work to: (1) ensure that graduate student concerns are addressed in campus and off-campus policy decisions, 2) provide graduate students with information concerning decisions that are relevant to student life, and 3) provide social activities for UCSB graduate students. As a GSA representative (the department has two representatives), you have a large voice in establishing the concerns of graduate students and articulating these concerns to the administration. We have an active graduate program, a lot of committed people, and a lot of energy. If you can't be the department representative, then be sure to sign-up to sit on one of the numerous campus committees that shape life here at UCSB. Examples include:

- Academic Freedom Committee
- Alcohol & Drug Task Force
- Campus Planning Committee
- Financial Aid Advisory Committee
- GSA Teaching Assistant Awards Selection Committee
- Graduate Council
- Natural Reserve System Committee
- Program Review Panel (modest stipend)
- Student Affairs Council (modest stipend)

Department Committees:

The AAG Organizing Team (4) – crafts a department plan for trying to recruit students at the annual meeting and attends the conference.

Coffee: (3-9) – Members purchase and make coffee for each week’s Colloquia.

Colloquia Committee: (2) – Members attend several meetings throughout the school year, especially during the first quarter, to assist in planning the Colloquium series and contacting potential speakers. They also solicit suggestions and requests for speakers from the graduate students and present those to the committee.

Ellison Hall Sustainability Committee: (4-6) – Members make sure that recycling bins on the third and fifth floors are emptied twice weekly into the main collection bins at Buchanan.

Events Committee: (3-6) – Members help to organize 3 departmental functions: the beginning of year party, the holiday party, and the end of year party, and they plan social activities for graduate students throughout the year and during Staff Celebration Week.

Faculty Meeting Reps: (2) – The grad student reps attend faculty meetings, report back to the grad students as a whole, collect student opinions, and make recommendations to the faculty. They also are involved in faculty searches and have a single vote when selecting the final candidate for appointment.

Search Committee (2) – Provides insight from the student perspective on candidates for faculty positions.

Visibility/Outreach (3) – Assists with providing guidance for the positive public presence of the department and helps recruit students

Placement of Graduates (a random sample):**Master’s:**

Env Researcher GIS/Remote Sensing Council for Scientific & Industrial Research Pretoria, South Africa	Project office Manager Ogden International Santa Barbara, CA
GIS Specialist Fairfield Industrial Inc. Houston, TX	Managing Director Technical Study – Tours & Travel Nairobi, Kenya
GIS Technican Houston Dept of Transportation Houston, TX	Instructor Santa Barbara City College Santa Barbara, CA
GIS/Remote Sensing Scientist Desert Research Institute Reno, NV	Research Associate University of Hawaii, Inst for Marine & Atmos Res Manoa, HI
Principal Geographer Creative Data St. Heliers, Auckland, New Zealand	Senior Research-Compiler National Geographic Society, Cartographic Division Washington, DC

PhD

Principal Scientist Geraghty & Miller Inc, Env Services Santa Barbara, CA	Technical Support Services United Nations Statistics Division New York, NY
Assistant Professor Dept of Geography University of Maryland	Assistant Professor Dept of Earth Resources Colorado State University
Assistant Professor Dept of Geography University of Maryland-Baltimore County	Assistant Professor Dept of Geography Boston University
Postgraduate Research Meteorologist Scripps Inst of Oceanography La Jolla, CA	Assistant Professor Dept of Geography Univ of Colorado, Boulder
Assistant Professor Dept of Geography Ohio State University	Vegetation Ecologist Marin Municipal Water District Corte Madera, CA
Assistant Professor Department of Geography Western Michigan University Kalamazoo, MI	Assistant Professor Dept of Geography Hunter College-CUNY New York, NY
Assistant Professor Higher Inst for Statistics & Information Management New University of Lisbon, Portugal	Lecturer Geographical Sciences & Planning Dept The University of Queensland, Australia

Theses and Dissertations: A list of theses and dissertations is posted at the department's website: <http://www.geog.ucsb.edu/graduates/>. Copies of most theses and dissertations are available for check-out in the department - those that are not available in the department can be found in the Special Collections Department of the main Library. Theses and dissertations are cataloged and searchable in Pegasus, the Library's online catalog.

Appendix A

Roles and Responsibilities for Geography Teaching Assistants (TAs) and Supervising Faculty Members

The purposes of the following guidelines for Teaching Assistants (the term "Teaching Assistant," as used in this document, represents collectively all teaching apprentice positions, including Teaching Assistants, Associates, and Teaching Fellows) and supervising faculty are:

- To maintain a high quality of teaching in undergraduate courses;
- To clarify the mutual responsibilities and obligations of the professor and the TA; and
- Through apprenticeship, to train graduate students to be educators.

University policy specifies the roles and responsibilities of apprentice personnel. Three principles help clarify these roles and responsibilities:

The Teaching Assistant is a 'student teacher' selected for his/her scholarship and promise as a teacher. He/she serves an apprenticeship under the active tutelage and supervision of regular faculty members who are responsible for curriculum and instruction in the University.

TAs are not to be given sole responsibility for the instructional content of any course, for examinations, for determining the term grade for students, for instructing the entire enrollment of

a course, nor for the entire instruction of an individual or group of students enrolled in any University course.

In order to ascertain the quality of each student teacher's performance in the full range of his/her assignments, and to require improvement when necessary, the faculty member who is responsible for the instruction and grading of students is expected to consult regularly with his/her student assistant(s) and to visit any course-related recitation and/or laboratory sections to which he/she (they) are assigned.

TA assignments are expected to involve an appropriate range of supportive activities, which may include:

- Assisting the faculty member in the preparation of course materials;
- Teaching in laboratory or discussion sections for the faculty member in charge of the course to which he/she is assigned;
- Attending the faculty member's lectures or other instruction periods;
- Reading and grading student papers and examinations;
- Assisting with evaluation of students' performance and assignment of grades; and
- Advising students during office hours.

The guidelines for TAs and faculty members in the Department of Geography are based on the following assumptions:

1. The quality of the undergraduate's education is best served when Teaching Assistants and faculty members work cooperatively and effectively together. Thus, it is the mutual responsibility of the TA and the faculty member to communicate questions and problems to each other regarding teaching materials, techniques, assignments, examinations, students' response, and other related factors that affect the fulfillment of their separate duties.
2. The concept of apprenticeship means that the faculty member provides "active tutelage" to TAs to help them improve their teaching skills. This must include the communication about content or subject matter of the course and evaluation of and advice about teaching effectiveness. Such feedback must ensure that undergraduates receive instruction of satisfactory quality, and could involve the faculty member's direct observation of the TA in section, discussion of students' written or oral evaluations of the TA, and a review of a TA's videotaped presentations in section. Advance notice should be given before classroom observation.
3. Effective teaching by Teaching Assistants demands credibility in their roles as teachers. Thus, observations and evaluations of TAs by faculty members must not jeopardize the TAs' rapport with their students. Evaluations and comments must take place later in confidence.

Guidelines

Meetings: Weekly meetings between the faculty member and the course's Teaching Assistants should be held and should include a review of the upcoming section assignment. These meetings should be scheduled soon enough to allow TAs to prepare for the section and exams. Schedules and due dates should be discussed between faculty and TAs well in advance. The supervising faculty member should inform the TAs about the topics of upcoming lectures so that they can properly prepare for sections and students' questions.

Preparation for sections: The supervising faculty member should ensure that the TAs are provided with enough information about the upcoming section assignment that they are confident and secure about their presentation. The faculty member should make the TAs aware of the services available from the University (e.g., free slide duplication for slides used in courses) and share these resources with the TAs.

Examinations and grading: The faculty member should provide keys to his/her exams, detailed breakdowns for the assignment of points, and guidelines for grading. This will help ensure that the professor's emphases and not those of individual TAs are reflected in the grading, and will contribute to the maintenance of uniformity among the different graders. It will also help TAs to handle effectively complaints about grading. TAs may be asked to evaluate the quality of the exam before it is given and to identify misleading or confusing questions.

Responsibility for assignment of grades: The supervising faculty member is responsible for instruction and grading in all University courses, including discussion or laboratory sections that accompany lecture courses. Thus, although the TA may write all or portions of the discussion or laboratory section assignments, quizzes, or examinations, the supervising faculty member must check the TAs' efforts throughout the quarter to maintain academic standards and provide necessary feedback.

Academic Dishonesty: If the TA discovers instances of academic dishonesty for which he/she feels sanctions are justified, the TA must bring the case to the attention of the supervising professor.

Coordinating TAs: While experienced Teaching Assistants may function as valuable resources for other TAs in a course, and may be assigned special duties, the apprenticeship of all TAs is with the supervising faculty member and not with the more experienced TAs. This does not preclude an organizational structure involving a coordinating or "senior" TA in courses with multiple TAs.

Lectures by TAs: The opportunity to give an occasional course lecture may be a welcomed culminating experience for an experienced Teaching Assistant. Such lecturing should be limited in occurrence and carried out under the supervision and guidance of the faculty member. TAs should not be expected to lecture just to substitute for an absent faculty member.

Workload: Assignment of a TA to more than one section of the same course is preferred to splitting a TA's duties between two courses. A half-time TA's appointment specifies a 20-hour per week commitment. This time includes lecture attendance, weekly meetings, and teaching of discussion or laboratory sections, office hours, grading, and preparation of instructional materials. If these duties consistently require more than 20 hours per week (or 10 hours per week for a quarter-time TA), the supervising faculty member must choose among the options for the use of a TA's time and relieve the TA of some duties.

Evaluation of TAs: TA evaluation should be an ongoing process throughout the quarter, culminating with written end-of-quarter student reviews. Sources of feedback during the quarter for the TA should include gathering comments from the course instructor and students, as a continuing process of refining teaching skills. The TA should be provided with comments from the instructor after a classroom visitation. The videotaping of discussion/lab sections and the follow-up consultation with an instructional development staff member is another course for examining teaching strengths and weaknesses. First-quarter TAs should receive written mid-

quarter evaluations from their students; these must be discussed with the supervising faculty member but do not become part of the TA's formal record. At the end of the quarter, the TA receives written reviews from students, copies of which are given to the TA and to the Department. Based on these evaluations, the supervising faculty member should write a short review of the performance of each TA in his/her courses.

Feedback to Supervising Faculty Members: Professors should encourage their TAs to provide their own evaluations and information about their students' perception of the quality of the lectures, audio-visual materials, assignments, discussions, readings, examinations, and any other aspect of the course.

TA's Commitment: A TA's appointment is a binding contract for the duration of the quarter. Once instruction has begun, it is unacceptable for a TA to break the contract for any reason except an extreme emergency. TAs are expected to be available throughout the quarter, including the time needed to assign grades after the final examination.

Department's Commitment: Normally, the Department of Geography awards TA positions for specified quarters during an academic year. However, promised employment for quarters later in the year may be revoked for unsatisfactory performance during an earlier quarter. Only in extreme cases of incompetence or lack of performance will a TA be dismissed during a quarter.

Criteria for Selection of TAs: Students will be considered eligible for teaching appointments based on the criteria in the APM 410 and Red Binder: registered graduate students in full-time residence; evidence of academic excellence and promise as a teacher; maintenance of a 3.0 GPA; in good academic standing; making normative progress to degree; enrolled in at least 8 units; experience and excellence for specific titles. TA positions are usually distributed among first-, second-, and third-year graduate students, and are occasionally assigned to more senior graduate students. When possible, supporting first-year students by other means than TA positions gives them time to become more familiar with the Department and with the discipline. When they then become TAs as second- or third-year graduate students, they are usually more effective and bring more knowledge to the undergraduates.

To the extent possible, TAs will be assigned assistantships in courses related to their previous and professional training. Two criteria are used to select TAs: academic excellence and potential as a teacher. If the graduate student has had prior teaching experience, evaluation of teaching ability is based on written comments by supervising faculty members and students. Otherwise, evaluation of teaching potential is based on letters of recommendation supporting the student's application to the Department.

Social Relationships with Students: The University does not tolerate sexual harassment, and TAs who subject students to unwanted attention of a sexual nature can expect sanctions. TAs must treat all students fairly and equally, and therefore should avoid personal relationships with students who are currently enrolled in their sections.

TA Training: All Teaching Assistants new to the Geography Department at UCSB are required to enroll in Geography 500, the TA training course, during or before their first quarter as a TA. All first-quarter TAs must be videotaped in section, and they must then review the tape with a trained consultant from Learning Resources. To the extent possible, TAs should repeat this videotaping experience every quarter to continue to improve their teaching. Instructional Development (<http://oic.id.ucsb.edu/>) provides professional consultation and resources on

instructional design, delivery, and evaluation, and it also provides workshops, institutes, and forums throughout the year.

Resolution of Problems

If problems arise about the roles or responsibilities of supervising faculty and TAs, the involved parties should meet with each other to discuss the problem and its resolution. These discussions might involve the TA's Faculty Advisor. If these meetings do not resolve the problem, the TA or supervising faculty member should attempt to resolve the problem through consultation with the Department Chair, who has the responsibility to resolve matters regarding Department personnel.

Appendix B

Suggested Reading for PhD Exams

To prepare for PhD written exams, each student should seek advice from members of their PhD Committee. It is recognized that suggested readings in preparation for the exam will be made up primarily of material that is related to the primary systematic and/or technical area of focus of the student.

- Abler, R., Marcus, M. G., & Olson, J. M. (Eds.). (1992). *Geography's Inner Worlds: Pervasive Themes in Contemporary American Geography*. New Brunswick, NJ: Rutgers University Press.
- Agnew, J., Livingston, D., & Rogers, A. (Eds.). (1996). *Human Geography: An Essential Anthology*. Oxford: Blackwell Publishers.
- Bailey, T. C., & Gatrell, A. C. (1995). *Interactive Spatial Data Analysis*. New York, NY: John Wiley and Sons.
- Bohren, C. F. (1987). *Clouds in a Glass of Beer: Simple Experiments in Atmospheric Physics*. New York: Wiley.
- Brown, J. H. (1995). *Macroecology*. Chicago, IL: University of Chicago Press.
- Clarke, K. C. (1995). *Analytical and Computer Cartography*. Englewood Cliffs, NJ: Prentice-Hall.
- Cronon, W. (1991). *Nature's Metropolis: Chicago and the Great West*. New York: W. W. Norton.
- Cushman-Roisin, B. (1994). *Introduction to Geophysical Fluid Dynamics*. Englewood Cliffs, NJ: Prentice Hall.
- Dingman, L. S. (1994). *Physical Hydrology*. Upper Saddle River, NJ: Prentice Hall.
- Gaile, G. L., & Willmott, C. J. (1989). *Geography in America*. Columbus, OH: Merrill Publishing Company.
- Gill, A.E. (1982), *Atmosphere-ocean dynamics*. New York: Academic Press.
- Hanson, S. (1997). *Ten Geographic Ideas That Changed the World*. New Brunswick, NJ: Rutgers University Press.
- Hartmann, D. L. (1994). *Global Physical Climatology*. San Diego: Academic Press.
- Haynes, K. E., Button, K. J., & Nijkamp, P. (Eds.). (1996). *Regional Dynamics: Modern Classics in Regional Science*. Cheltenham and Northampton, UK: Edward Elgar Publishing.
- Holton, J.R. (1992), *An introduction to dynamic meteorology*, Academic Press, San Diego.

- Houghton, J. T., Jenkins, G. J., & Ephraums, J. J. (Eds.). (1990). *Climate Change. The IPCC Scientific Assessment*. Cambridge: Cambridge University Press.
- Houghton, J. T., Meira Filho, L. G., Callender, B. A., Harris, N., Kattenberg, & Maskell, K. (Eds.). (1995). *Climate Change 1995: The Science of Climate Change. Contribution of Working Group I to the Second Assessment of the Intergovernmental Panel on Climate Change*. Cambridge, UK: Cambridge University Press.
- Johnston, R.J. (1997) *Geography and geographers: Anglo-American human geography since 1945*. London & New York: Edward Arnold.
- Johnston, R. J., D., G., & Smith, D. M. (1986). *The Dictionary of Human Geography - Second Edition*. Oxford, UK: Basil Blackwell Ltd.
- Knauss, J. (1997). *Introduction to Physical Oceanography (2nd Edition)*. Upper Saddle River, NJ: Prentice Hall.
- Livingstone, D. N. (1992). *The Geographical Tradition: Episodes in the History of a Contested Discipline*. Oxford: Blackwell Publishers.
- Longley, P., Brooks, S., MacMillan, B. & McDonnell, R. (1999). *Geocomputation: A Primer*, London: J. Wiley.
- MacArthur, R. H. & Dakota, E. O. (1967). *The Theory of Island Biogeography. Princeton Monographs in Population Biology 1*. Princeton, NJ: Princeton University Press.
- Martin, G. J. & James, P. E. (Eds.) (1993). *All Possible Worlds: A History of Geographical Ideas*. New York: John Wiley & Sons.
- Myers, A. A. & Giller, P. S. (1988). *Analytical Biogeography*. London: Chapman and Hall.
- National Research Council (1997). *Rediscovering Geography*. Washington DC: National Academy Press..
- Philander, S. G. (1998). *Is the Temperature Rising? The Uncertain Science of Global Warming*. Princeton, NJ: Princeton University Press.
- Pond, S., & Pickard, G. L. (1983), *Introductory Dynamical Oceanography, 2nd edition*. New York: Pergamon.
- Unwin, T. (1992). *The Place of Geography*. New York: John Wiley and Sons, Inc.

APPENDIX C

GENERAL DEPARTMENTAL POLICIES FOR GRADUATE STUDENTS

There are some general Department of Geography policies that you should be aware of. If you have any questions about any of them, please ask in the office - we're glad to assist you.

1) Copiers: The department copiers can be found in 1829 Ellison Hall. Copier codes are issued only to employed graduate students for instructional (e.g., Teaching Assistant, Reader, Associate) or grant-related (e.g., Graduate Student Researcher, Postgraduate Researcher) copying. If you are employed on a research grant, please contact Geography Research or the P.I. in charge of the grant to find out if there is a copier code assigned to that account. Personal copying is not allowed. All personal copying should be done on the copiers available in the Library. If the copier isn't operating properly, or is giving a message that isn't clear to you, or indicates that there is a problem, please inform the office staff so that we can assist in correcting the problem or call for repair, if necessary.

2. Office Space: While the department has no obligation to provide space for graduate students who are not employed as Teaching Assistants, Associates, or Graduate Student Researchers/Post-graduate Researchers, we always try to provide at least some space for all graduate students. Graduate student priority ranking for the assignment of space also takes into

account class level in this order: PhD students advanced to candidacy, PhD students, and Master's students. Campus and department policy dictates to a very large extent the priorities for the allocation of space to persons associated with departments. These priorities are:

1. Faculty
2. Support staff
3. Temporary faculty (Lecturers)
4. Associates, Teaching Assistants, and UCSB fellowship holders (Regents Special Fellowship/ Doctoral Scholars Fellowship/President's Predoctoral Fellowship)
5. Graduate Student Researchers/Post-graduate Researchers

To as large an extent as possible, GSRs & PGRs should be housed in research units.

Stewardship of Space: Each person who is assigned space is responsible for maintaining the room in a professional manner. If you would like to clean your desk, shelves, or file cabinets, you can request to borrow *green cleaning products* from the administrative office. We want to be able to maintain excellent indoor air quality, so please be sure to use only the recommended products when spiffing up your office!

3. Keys: All graduate students are eligible, upon request, for keys to their assigned office and Ellison Hall exterior doors. Requests for any other keys require special permission. All faculty and graduate student offices are considered private. Requests should not be made for keys to these offices unless there is a real emergency. All keys must be turned in to Bernadette Weinberg before final degree completion.

4. Mail/Packages: Mail is delivered to the office daily in the afternoon (approximately 1:45p) and is sorted into assigned mailboxes in the office. Incoming mail should be limited to official university business. Do not use this address for personal mail, especially for magazines, etc. University policy clearly states, "Outgoing personal mail should not be deposited with official University mail." For your convenience, there are a number of U.S. postal deposit boxes located around campus. If you are leaving campus (temporarily or permanently), please keep in mind that the **Post Office will not forward mail that is addressed to the University. Submitting a "Change of Address" postcard to the U.S. Post Office for a University address will not work.** You need to take steps to change your mailing address well in advance, because the department does not have the manpower or the financial resources to forward mail. Making arrangements for your mail after you leave is your responsibility, not that of the department.

5. Telephone Use: Long distance calls must either: a) be charged to a grant, b) paid for by the student personally using a calling card, or c) made on your home or cell phone. Correspondence with faculty off campus should be by email or regular mail if the student does not wish to pay for the call or if she/he is not working on a grant that will pay for the call. The main Geography Department office phone should **NOT** be used as a message phone unless it is an emergency.

6. Supplies: Only office supplies used for your teaching responsibilities will be provided by the department. GSRs hired on grants should obtain their supplies through the office responsible for handling the grant. TA's printing or copying more than 20 pages per student in a quarter are required to use a reader rather than handouts. Graduate students who are not employed by the department nor employed on any research grants are expected to pay for their own supplies (this includes copying, transparencies, envelopes, paper, etc).

7. Recycling: There are clusters of recycle bins for plastic, aluminum, glass, and office pack located on each floor of Ellison Hall (each container is clearly marked). Please be sure to deposit your recyclables in the appropriate container each day. The blue bin in your office is for office

pack only and, when full, has to be carried to the large receptacle in one of these locations. The custodial crew only picks up the trash from the office on a regular basis, so we need your help to be sure we are capturing the office pack appropriately for recycling.

APPENDIX D

THINGS TO DO BEFORE LEAVING THE DEPARTMENT

1. Make sure that all Graduate Division paperwork has been completed.
 2. File a copy of your thesis or dissertation with the Department.
 3. If you are willing to make a PDF of your thesis/dissertation available on the Geography web site, leave a PDF with the Graduate Program Assistant and sign the permission form.
 4. Return your keys to our Academic Personnel Analyst, Bernadette Weinberg.
 5. Talk to Dylan Parenti re your email and UNIX accounts, lab keys, computer data, etc.
 6. Leave a contact address if you'd like to keep in touch!
-

ERC CVs

Curriculum Vitae

KATHARYNE MITCHELL

Department of Geography, Smith Hall, Box 353550
University of Washington, Seattle, WA 98195
Tel. (206) 543-1494; email: kmitch@uw.edu

EDUCATION

Doctor of Philosophy in Geography, University of California at Berkeley, 1993.
-Outstanding Doctoral Dissertation Award, UC Berkeley, 1993.
Master of Arts in Geography, University of California at Berkeley, 1989.
Bachelor of Arts in Art and Archaeology *cum laude*, Princeton University, 1983.

PROFESSIONAL POSITIONS

Chair, Department of Geography, University of Washington, 2008-
Simpson Professor in the Public Humanities, 2004-2007.
Professor, Department of Geography, University of Washington, 2004-
Associate Professor, Department of Geography, University of Washington, 1998-2004.
Visiting Professor, St. Catherine's College and Hertford College, Oxford, 2000-2001.
Director of Canadian Studies, 1998-1999.
Assistant Professor, Department of Geography, University of Washington, 1993-1998.
Adjunct Faculty: Women Studies, 1993-
Faculty Lecturer, Department of English, Tunghai University, Taiwan, 1983-1985.

HONORS AND FELLOWSHIPS

Edward J. Taaffe Lecture in Human Geography, The Ohio State University, 2012.
Isaac Manasseh Meyer Fellowship, National University of Singapore, 2011.
Whiteley Center Fellowship at Friday Harbor Labs, 2003, 2011, 2012.
Plenary Address at Spaces of History/Histories of Space, University of California,
Berkeley, 2010.
Antipode 40th Anniversary Plenary Address, Association of American Geographers, Las
Vegas, 2009.
Simpson Professorship in the Public Humanities, 2004-2007.
Center for Advanced Study in the Behavioral Sciences (CASBS) Fellowship at Stanford
University. Awarded January, 2002 (declined).
Visiting Professorship, St. Catherine's College, Oxford, 2000-2001.
Visiting Professorship, Hertford College, Oxford, 2000-2001.
Nomination for Distinguished Undergraduate Teaching Award, 2002, 2005, 2007.
Nomination for Distinguished Graduate Mentor Award, 2000.
Junior Faculty Mentoring Award, University of Washington, 1996.
Izaak Walton Killam Postdoctoral Fellowship, University of British Columbia. Awarded
April, 1993 (declined).
Award for Outstanding Dissertation of UC Berkeley, 1993.
Council of Graduate Schools' University Microfilms' International Dissertation Prize
Nominee, 1993.

University of California Regents Fellowship, 1992-1993.
Graduate Opportunity Research Fellowship, UC Berkeley, 1986-1987.
Sidney Gamble Fellowship, Princeton University, 1983-1985.

RESEARCH GRANTS

Principal Investigator, Spencer Foundation, Strategic Initiative on Civic Learning and Civic Action, 2009-2012, with Sarah Elwood: "Mapping Youth Journeys: From Place-Based Learning to Active Citizenship," \$316,000.

Principal Investigator, National Geographic Education Foundation, 2009-2010, with Sarah Elwood: "Mapping Youth Journeys Project," \$50,000.

Principal Investigator, National Science Foundation, GRS, 2009-2011, Doctoral Dissertation Improvement Grant: "Returning to the South: Building the New South Sudan." Co-PI Leonie Newhouse, University of Washington, \$11,400.

Co-PI, Walter C. Simpson Center for the Humanities, 2006-2007, with Katherine Beckett: "Discourses of Banishment, States of Exception and Spaces of Exclusion," \$11,500.

Principal Investigator, Walter C. Simpson Center for the Humanities, 2004-2007: "Reclaiming Childhood," \$300,000.

Principal Investigator, John D. and Catherine T. MacArthur Foundation, 2003-2004: "Muslims into Frenchmen? Education, Citizenship and Security under the EU," \$53,000.

Principal Investigator, Curriculum Transformation Project, 2003-2004, with Kathie Friedman: "Migration/Identity: Teaching and Learning about Citizenship," \$10,000.

Principal Investigator, Walter C. Simpson Center for the Humanities, 2002-2003, with Walter Parker: "Citizenship Formation and Historical Memory in the Wake of 9/11," \$11,500.

Principal Investigator, Spencer Foundation, 2000-2001: "Transnationalism and the Challenges to Universalist Public Education: The Case of Muslim Schools in Britain," \$26,300.

Principal Investigator, Canadian Embassy Program Enhancement Grant, 2000-2001. Funding for the Canadian Studies Center at the University of Washington, \$15,000.

Principal Investigator, Title VI Grant, Department of Education, 2000-2003. Area Studies Funding for Canadian Studies at the University of Washington. \$730,182, plus \$162,000 for linked FLAS fellowships.

Principal Investigator, National Academy of Education/Spencer Postdoctoral Fellowship, 1997-1999: "Education, Democracy and Citizenship in the Late Twentieth Century," \$40,000.

Principal Investigator, Department of Education grant to the Jackson School International Studies Center, 1997-2000: "Migration and the Culture of Community in the Northwest," \$7,500.

Co-PI, Ford Foundation Initiative, 1998-1999: "Revitalizing Area Studies," \$50,000.

Principal Investigator, Royalty Research Fund, 1996-1997: "Chinese Diasporas and the Spatial Politics of Chinatown," \$25,167.

Co-PI, Rockefeller Foundation Humanities Fellowships Institutional Grant 1996-1998: "Project for Critical Asian Studies."

Co-PI, National Science Foundation, 1996-1997: "Curriculum development using new information technologies," \$40,000.

Principal Investigator, Pacific Cultural Foundation, Taipei, 1996: "Facing Capital: Urban Politics in Vancouver," \$3,000.

Principal Investigator, University of Washington CIBER Research and Curriculum Development, 1994: \$2,000.

Principal Investigator, Humanities Graduate Research Grant, University of California at Berkeley, 1992: \$1,500.
Principal Investigator Fulbright Institute of International Education, 1991: Doctoral research, Hong Kong, \$19,600.
Principal Investigator, Pacific Cultural Foundation, Taipei, 1990: Doctoral research, Vancouver, \$6,000.
Principal Investigator, University of California at Berkeley, Humanities Graduate Research Grant, 1988: \$5,600.
Principal Investigator, University of California at Berkeley, Foreign Language and Area Studies Grant, 1987: University of International Business and Economics in Beijing, \$3,200.

PUBLICATIONS

Books

Mitchell, K. and Sparke, M. *The New Washington Consensus: Global Health, Education and the Rise of Philanthrocapitalism*. Under contract with Oxford University Press.

Mitchell, K. (2008). *Practicing Public Scholarship: Experiences and Possibilities Beyond the Academy*, (editor), Oxford: Blackwell Publications.

Mitchell, K. (2004). *Crossing the NeoLiberal Line: Pacific Rim Migration and the Metropolis*, Philadelphia: Temple University Press.

Mitchell, K., Marston, S., and Katz, C. (2004). *Life's Work: Geographies of Social Reproduction* (editors), Oxford: Blackwell Publications.

Agnew, J., Mitchell, K., and Toal, G. (2003). *A Companion Guide to Political Geography*, (editors), Oxford: Blackwell Publications.

Castells, M., Bornstein, L., Mitchell, K., Skinner, R., and Stowsky, J. (1988). *The State and Technology Policy: A Comparative Analysis of the U.S. Strategic Defense Initiative, Informatics Policy in Brazil, and Electronics Policy in China*. Berkeley Round Table on the International Economy (BRIE), June.

Special Issues

Mitchell, K., Marston, S., and Katz, C. (2003). Guest editors of a special issue of *Antipode* titled "Geographies of Social Reproduction," 35, 3.

Mitchell, K. (1997). Guest editor of a special issue of *Antipode* titled "Crossing Borders: Geographies of Transnationality," 29, 2.

Book Chapters

Mitchell, K. (forthcoming, 2013). Difference. *Sage Handbook of Human Geography*. Under contract with Sage Publications, 15,000 words.

- Mitchell, K. (2011). Cultural geographies, in M. Brown and R. Morrill (eds.), *Seattle Geographies*. Seattle, University of Washington Press, pp. 165-182. With geography honors students.
- Mitchell, K. (2010). Pre-Black Futures, in N. Castree, P. Chatterton, N. Heynen, W. Larner, and M. Wright (eds.), *The Point is To Change It: Geographies of Hope and Survival in an Age of Crisis*. Oxford: Blackwell, pp. 239-261.
- Mitchell, K. (2008). Becoming political, in K. Mitchell (ed.), *Practicing Public Scholarship: Experiences and Possibilities Beyond the Academy*. Oxford: Blackwell, pp. 1-8.
- Mitchell, K. (2008). Preface, in C. Jeffrey and J. Dyson (eds.), *Telling Youth Stories*. Philadelphia, Temple University Press, pp. 1-3.
- Mitchell, K. (2008). Citizenship, Communism, Local-Global, Localization, Pacific Rim, Transnationalism, in R. Johnson et al (eds.), *The Dictionary of Human Geography*. Oxford: Blackwell.
- Marston, S., and Mitchell, K., (2005). Citizens and the state: Contextualizing citizenship formation in space and time, in M. Low and C. Barnett (eds.), *Spaces of Democracy*. Sage Publications, pp. 124-144.
- Mitchell, K., (2005). Hybridity, in D. Atkinson, P. Jackson and D. Sibley (eds.), *Cultural Geography: A Critical Dictionary*. London: I.B. Tauris, pp. 188-194.
- Mitchell, K. (2004). Transnationalism in the margins: Hegemony and the shadow state, in P. Jackson (ed.), *Transnational Spaces*. New York: Routledge, pp. 122-146.
- Mitchell, K., Marston, S., and Katz, C. (2004). Introduction, in K. Mitchell, S. Marston, and C. Katz, *Life's Work: Geographies of Social Reproduction*, London: Blackwell, pp. 1-26.
- Mitchell, K. (2004). The tradition of the end: Global capitalism and the contemporary spaces of apocalypse, in N. AISayyad (ed.), *The End of Tradition?* New York: Routledge, pp. 45-62.
- Mitchell, K. (2003). Conflicting landscapes of dwelling and democracy in Canada, in S. Cairns (ed.), *Building, Dwelling, Drifting: Architecture and Migrancy*. New York: Routledge, pp. 142-163.
- Agnew, J., Mitchell, K., and Toal, G. (2003). Introduction, in J. Agnew, K. Mitchell and G. Toal (eds.), *A Companion to Political Geography*, London: Blackwell, pp. 1-10.
- Mitchell, K. (2002). Cultural geographies of transnationality, in K. Anderson, M. Domosh, and S. Pile (eds.), *The Cultural Geography Handbook*. London: Blackwell, pp. 74-87.
- Mitchell, K. and Olds, K. (2000). Chinese business networks and the globalization of property markets in the Pacific Rim in K. Olds and H. Yeung (eds.), *The*

Globalization of Chinese Business Firms. Oxford: Oxford University Press, pp. 147-173.

Mitchell, K. (1999). Transnationalism, Pacific Rim, in R. Johnston and D. Gregory (eds.), *The Dictionary of Human Geography*. London: Blackwell.

Mitchell, K. (1999). Hong Kong immigrants and the question of democracy: Contemporary struggles over urban politics in Vancouver, B.C., in G. Hamilton (ed.), *Cosmopolitan Capitalists: Hong Kong and the Chinese Diaspora at the End of the 20th Century*. Seattle: University of Washington Press, pp. 152-166.

Mitchell, K. (1998). Fast capital, modernity, race and the monster house, in R. M. George (ed.), *Burning Down the House: Recycling Domesticity*. New York: Westview Press, pp. 187-212.

Mitchell, K. (1997). Transnational subjects: Constituting the cultural citizen in the era of Pacific Rim capital, in A. Ong and D. Nonini (eds.), *Ungrounded Empires: the Cultural Politics of Modern Chinese Transnationalism*, New York: Routledge, pp. 228-258.

Mitchell, K. (1996). In whose interest? Transnational capital and the production of multiculturalism in Canada, in R. Wilson and W. Dissanayake (eds.), *Global/Local: Cultural Production in Transnational Imagery*, Durham: Duke University Press, pp. 219-251.

*Reprinted in S. Mookerjee, I. Szeman and G. Faurschou, (eds.), *Canadian Cultural Studies: A Reader*, Durham: Duke University Press, 2009, pp. 344-365.

Mitchell, K. (1995). The Hong Kong immigrant and the urban landscape, in R. Wilson and A. Dirlik (eds.), *Asia/Pacific as Space of Cultural Production*, Durham: Duke University Press, pp. 284-310.

Mitchell, K. (1988). The technological imperative in the Open Door Policy of the People's Republic of China: Technological policy and the electronics industry. In M. Castells, L. Bornstein, K. Mitchell, R. Skinner and J. Stowsky, *The State and Technology Policy: A Comparative Analysis of the U.S. Strategic Defense Initiative, Informatics Policy in Brazil, and Electronics Policy in China*. Berkeley Round Table on the International Economy (BRIE), Working Paper #37, June: 143-231.

Articles and Essays in Peer-Reviewed Journals

Mitchell, K. and Elwood, S. (2013). Intergenerational Mapping and the Cultural Politics of Memory. *Space and Polity* 17, 2. Special issue under contract with Taylor and Francis Publications.

Mitchell, K. and Elwood, S. (2012). From Redlining to Benevolent Societies: The Political Power of Spatial Thinking. *Theory and Research in Social Education*. Accepted and forthcoming, Summer.

- Mitchell, K. and Elwood, S. (2012). Mapping Children's Politics: The Promise of Articulation and the Limits of Nonrepresentational Theory. *Environment and Planning D: Society and Space*, 30, 5, in press.
- Mitchell, K. and Elwood, S. (2012). Engaging Students through Mapping Local History. *Journal of Geography*. 111, 4, in press.
- Elwood, S. and Mitchell, K. (2012). Children's Politics: Mapping a New Public Sphere. *Geografiska Annaler, Series B* 94, 1, 1-15.
- Mitchell, K. (2011). Bodies that Matter: A Response to Stuart Elden's *Terror and Territory*. *Dialogues in Human Geography* 1, 2, 247-259.
- Mitchell, K. (2011). Zero Tolerance, Imperialism, Dispossession, *ACME*, 10, 2, 293-312.
- Mitchell, K. (2011). Marseille's Not for Burning, *Annals of the Association of American Geographers*, 101, 2, 404-423.
- Mitchell, K. (2010). Ungoverned Space: Global Security and the Geopolitics of Broken Windows, *Political Geography* 29, 5, 289-297.
- Mitchell, K. (2009). Pre-Black Futures, *Antipode* 41, S1, 239-261.
- Mitchell, K. and Beckett, K. (2008). Securing the Global City: Crime, Consulting, Ratings and Risk, *International Journal of Global Legal Studies* 15, 1, 75-99.
- Mitchell, K. and Parker, W. (2008). I Pledge Allegiance to... Flexible Citizenship and Shifting Scales of Belonging, *Teacher's College Record* 110, 4, 775-804.
- Mitchell, K. (2007). Geographies of Identity: The Intimate Cosmopolitan, *Progress in Human Geography* 31, 5: 706-720.
- Mitchell, K. (2006). Liberating the City: Between New York and New Orleans, *Urban Geography* 27, 8: 722-728.
- Mitchell, K. (2006). Neoliberal Governmentality in the European Union: Education, Training and Technologies of Citizenship, *Environment and Planning D: Society and Space* 24, 2: 389-407.
- Mitchell, K. (2006). What's Left in Geography? *Antipode* 38, 2: 205-212.
- Mitchell, K. (2006). Geographies of Identity: The New Exceptionalism, *Progress in Human Geography* 30, 1: 95-106.
- Gokariksel, B. and Mitchell, K. (2005). Veiling, Secularism and the Neoliberal Subject: National Narratives and Supranational Desires in Turkey and France, *Global Networks* 5, 2: 147-165.
- Mitchell, K. (2004). Geographies of Identity: Multiculturalism Unplugged, *Progress in Human Geography* 28, 5: 641-651.

- Mitchell, K. (2003). Monuments, Memorials, and the Politics of Memory, *Urban Geography* 24, 5: 442-459.
- Mitchell, K. (2003). Educating the National Citizen in Neoliberal Times: From the Multicultural Self to the Strategic Cosmopolitan, *Transactions of the Institute of British Geographers* 28, 4: 387-403.
- Mitchell, K., Marston, S., and Katz, C. (2003). Life's Work: An Introduction, Review and Critique, *Antipode* 35, 3: 415-442.
- Mitchell, K. (2001). Education for Democratic Citizenship: Transnationalism, Multiculturalism and the Limits of Liberalism, *Harvard Educational Review* 71, 1: 51-78.
- Mitchell, K. (2001). Transnational Migration, Neoliberalism, and the Rise of the Shadow State, *Economy and Society* 30, 2: 165-189.
- Mitchell, K. (2000). The Value of Academic Labor: What the Market has Wrought," *Environment and Planning A* 32, 10: 1713-1718.
- Mitchell, K. (2000). The Culture of Urban Space, *Urban Geography* 21, 5: 443-449.
- Mitchell, K. (2000). Global Diasporas and Traditional Towns: Chinese Transnational Migration and the Redevelopment of Chinatown. *Traditional Dwellings and Settlements Review* 11, 11: 29-40.
- Mitchell, K. (1999). What's Culture Got to Do With It? *Urban Geography* 20(7): 667-682.
- Mitchell, K. (1999). Scholarship Means Dollarship, or Money in the Bank is the Best Tenure. *Environment and Planning A* 31(3): 381-388.
- Mitchell, K. (1998). Reworking Democracy: Contemporary Immigration and Community Politics in Vancouver's Chinatown. *Political Geography* 17(6): 729-750.
- Mitchell, K. (1998). Lingua Franca. *Environment and Planning D: Society and Space* 16(5): 505-508.
- Mitchell, K. and Hammer, B. (1997). Ethnic Chinese Networks: A New Model? *Hongkong Bank of Canada Papers on Asia*, Vol. 3: 73-103.
- Mitchell, K. (1997). Different Diasporas and the Hype of Hybridity. *Environment and Planning D: Society and Space* 15(5): 533-553.
- *Reprinted in *Critical Geographies: A Collection of Readings*, eds. H. Bauder, and S. Engel-Di Mauro. (Kelowna, British Columbia, Canada: Praxis Press).
- Mitchell, K. (1997). Conflicting Geographies of Democracy and the Public Sphere in Vancouver, B.C. *Transactions of the Institute of British Geographers* 22(2): 162-179.

- Mitchell, K. (1997). Transnational Discourse: Bringing Geography Back In. *Antipode* 29(2): 101-114.
- Mitchell, K. (1996). Visions of Vancouver: Ideology, Democracy and the Future of Urban Development. *Urban Geography* 17(6): 478-501.
- Mitchell, K. (1995). Flexible Circulation in the Pacific Rim: Capitalisms in Cultural Context. *Economic Geography* 71(4): 364-382.
- *Reprinted in *The Economic Geography Reader*, eds J. Bryson, N. Henry, D. Keeble, and R. Martin (N.Y.: John Wiley and Sons, 1999).
- Mitchell, K. (1994). APEC and the New Global Economy. *Journal of Far Eastern Business* 1(2): 80-85.
- Mitchell, K. (1994). Zoning Controversies in Shaughnessy. *Canada and Hong Kong Update* Winter No. 11:11.
- Mitchell, K. (1993). Multiculturalism, or the United Colors of Capitalism? *Antipode* 25(4): 263-294.
- Mitchell, K. (1992). Work Authority in Industry: the Happy Demise of the Ideal Type. *Comparative Studies in Society and History* 34(4): 679-694.
- Mitchell, K. (1988). Reflections of a Quality Inspector. *The Chinese Business Review* 15(1): 38-39.

Review Essays, Book Reviews and Miscellaneous

- Review of Aihwa Ong, *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty* for *Cultural Geographies*, 16, 4, 2009, 540-542.
- Guest columnist, "Trespass law targets the homeless," *Seattle Post-Intelligencer*, June 27, 2007.
- In Memoriam: Allan Pred, 1936-2007, for *Cultural Geographies*, 14, 2007, 481-483.
- Review of Romain Garbaye, *Getting into Local Power: The Politics of Ethnic Minorities in British and French Cities* in *Social and Cultural Geography* 7, 5, 2006, 847-848.
- Guest columnist, "Give childhood back to children," *Seattle Post-Intelligencer*, June 2, 2005.
- Review Essay of Christian Joppke and Ewa Morawska, *Toward Assimilation and Citizenship*, and Malcolm Cross and Robert Moore, *Globalization and the New City in Globalisation, Education and Society*, 2, 2, 2004, 307-311.
- Published interview in "(In)civilities," special issue of *DisClosure: A Journal of Social Theory*, no. 12, 2003, 107-118.

Review of Ting-hong Wong, *Hegemonies Compared: State Formation and Chinese School Politics in Postwar Singapore and Hong Kong in Anthropology and Education Quarterly* 34, 1, 2003.

Review of Jan Lin, *Restructuring Chinatown: Ethnic Enclave, Global Change in Journal of Historical Geography* 27, 1, 2001, 111-113.

Review Essay of Manuel Castells, *The Information Age: Economy, Society and Culture*, Volumes I, II, and III, in *Antipode* 31, 2, 1999, 235-239.

Review of Anne Godlewska and Neil Smith (eds.), *Geography and Empire*, in *Gender, Place and Culture* 4,2, 1997, 259-261.

Review of Kenneth Foote, Peter Hugill, Kent Mathewson and J. Smith (eds.), *Rereading Cultural Geography*, in *Progress in Human Geography* 20, 3, 1996, 421-423.

Review of Timothy Fong, *The First Suburban Chinatown: the Making of Monterey Park, in Environment and Planning A* 28, 3, 1995, 589-590.

Review of Susan Thornton, *Gender and Slum Culture in Asia*, in *Professional Geographer* 47, 3, 1995, 359-360.

Review of Kay J. Anderson, *Vancouver's Chinatown: Racial Discourse in Canada, 1875-1980*, in *Environment and Planning D: Society and Space* 12, 1994, 253-256.

Review of Richard Appelbaum and Jeffery Henderson (eds.), *State and Development in the Asian Pacific Rim*, in *Environment and Planning D: Society and Space* 11, 6, 1993, 737-738

CONFERENCE AND SESSION PLANNING

Organizer (with Sarah Elwood, Jouni Hakli and Kirsi Kallio), Mapping Children's Politics, 6th International Conference on Critical Geography, Frankfurt, Germany, August, 2011.

Organizer, Seattle Geographies, AAG meetings, Seattle, April, 2011.

Organizer, Association of West Coast Geographers, annual meeting, University of Washington, 2010.

Organizer (with Vicky Lawson), Spaces of Democracy seminar with Ananya Roy, University of Washington, October, 2010.

Organizer (with Sarah Elwood), Democracy and the Public Sphere in the Era of Web 2.0, two linked panels, AAG meetings, Washington D.C., April, 2010.

Organizer, The Global Racialization of Risk, three linked panels, AAG meetings, Boston, April, 2008.

Organizer, Being and Becoming a Public Scholar, AAG meetings, March 2006.

Organizer, chair, and discussant, Social Reproduction and the Transnational Imaginary, AAG meetings, March, 2002.

Organizer, Transnational Spaces, AAG meetings, April, 2000

Organizer, Transnationalism, AAG meetings, April, 1998.

Organizer, Transnational Forces, National Borders and Urban Struggles, AAG meetings, April, 1997.

Chair, Chinese migration and the Pacific Northwest, On Brotherly Terms: Canadian-American Relations West of the Rockies, Seattle. September, 1996.

INVITED PRESENTATIONS

- "The New Washington Consensus: Education and the Rise of Philanthrocapitalism." Taafe Lecture in Human Geography, presented at The Ohio State University, Columbus, 2012.
- "The Future of Multiculturalism?" Workshop presentation for the Migration Cluster, National University of Singapore, 2011.
- "State Spatialities," Presented at the National University of Singapore, 2011. With Jamie Peck.
- "Mapping to Manage: Risk, Race, and the Future," Presented at the University of Illinois at Urbana-Champaign, 2011.
- "Multiculturalism, Globalization, and Education in the University Setting," Workshop presentation at the University of Illinois at Urbana-Champaign, 2011.
- "Pay to Play: The Privatization of Play Space and the Decline of Democracy," Presented at the Rotary Club International, Seattle, 2010.
- "Mapping Engagement: Using Basic Geovisualization Technologies to Help Children Become Better Geographers and Better Citizens," Plenary presentation at Association of West Coast Geographers, University of Washington, 2010. With Ryan Burns.
- "Mapping Histories of the Future," Plenary presentation at Spaces of History/Histories of Space, University of California, Berkeley, 2010.
- "Broken Windows Policing and the Geopolitics of Ungoverned Space," Presented at the University of Hawaii at Manoa, 2010.
- "Human Rights. Global Cities. Catastrophe!" Panel presentation at Next City: Sustainable Urbanization series, University of Washington, 2010.
- "Ungoverned Space: Global Security and the Geopolitics of Broken Windows," Presented at the Department of Geography, University of Washington, 2009.
- "Moody's Blues: Risk, Ratings, and the Production of Urban Space." Presented at Global Metropolitan Studies, University of California, Berkeley, 2009.
- "From Risk to Exile: Producing and Profiting from Surplus Populations." Presented at the Department of Geography, University of California, Berkeley, 2009.
- "Scaling Up Zero Tolerance in Late Empire: The Global Racialization of Risk and Dispossession." Presented at the Department of Geography, University of Durham, 2009.
- "Rethinking Public Scholarship in the Neoliberal University." Presented at the Department of Geography, University of Durham, UK, 2009.
- "Dangerous Futures." Plenary presentation for Antipode's 40th anniversary, Association of American Geographers, Las Vegas, 2009.
- "Giuliani Abroad." radio interview in Italian and English on Radio Ondarossa in Rome at 87.9 FM at and streamed at <http://www.ondarossa.info/>, 2008.
- "Remembering Marseille," Presented to the faculty at the Rome Study Abroad Center, Rome, Italy, 2008.
- "The Political Economy of Ethnic Harmony in Marseille." Presented at the Cultural Research Center, University of Western Sydney, Australia, 2007.
- "Public Scholarship and the Academy." Presented at the University of the Sunshine Coast, Brisbane, Australia, 2007.
- "The Color of Risk." Presented at the Cultural Studies Association, Portland, 2007.

- “Securing the Global City: Crime, Consulting, Risk and Ratings.” Presented at the Global Legal Studies symposium, University of Indiana, Bloomington, 2007.
- “Privatization of Space and the Decline of Public Life.” Presented at the Department of Geography, University of Washington, 2007.
- “Migrant Trading Networks and Ethnic Harmony in France.” Presented at the Impacts of Transnational Activities, Rone, Denmark, 2006.
- “Marseille’s Not for Burning.” Presented at the Practice, Power, Politics and Performance symposium, University of California, Berkeley, 2006.
- “Pay to Play: Neoliberalism, Childhood and the Crisis of Democracy.” Presented at the F. Ross Johnson/Connaught Distinguished Speakers’ Series at the Centre for the Study of the United States, University of Toronto, 2006.
- “Spatial Transformation and the Decline of Public Life: Whither Democracy?” Presented at the Department of Educational Studies, University of British Columbia, 2006.
- “Neoliberal Governmentality and Educational Change in the EU.” Presented at Theory Night, Department of Educational Studies, University of British Columbia, 2006.
- “Privatization of Space and the Decline of Public Life: How the Loss of Public Places Impacts Democracy.” Presented at the Centre for Civic Engagement, University of Washington, 2006.
- “Marseille’s Not for Burning: Exceptional Cities and Cities of Exception.” Presented at the Global Cities as Immigrant Gateways workshop, Washington D.C., 2006.
- “Pay to Play: Privatizing Childhood?” Presented at the Reclaiming Childhood Lecture Series, University of Washington, 2005.
- “Patriotism and Allegiance in Education.” Presented for the Metropolis Center, Simon Fraser University, Vancouver, 2005.
- “I Pledge Allegiance to the City...: Patriotism and Cosmopolitanism Reconsidered.” Presented at the Miami Consortium for Urban Studies, Miami, Florida, 2005.
- “Neoliberal Governmentality in the European Union: Education, Training and Technologies of Citizenship,” Presented at the Department of Geography, University of Washington, 2005.
- “Neoliberalism and Citizenship in the EU.” Presented at the Department of Geography, University of North Carolina, Chapel Hill, 2005.
- “Rethinking Multiculturalism and Citizenship.” Presented at Dartmouth University, 2005.
- “Notes from the Field.” Presented at the Department of Geography, University of Wisconsin, Madison, 2004.
- “Educating the Enterprising Citizen: Neoliberal Governmentality in the EU.” Presented at the Department of Geography, University of Wisconsin, Madison, 2004.
- “Educating the Multicultural Citizen in Neoliberal Times.” Presented at the Citizenship Colloquium Series, University of Washington, 2003.
- “Multiculturalism and Education: Dialogues of Difference.” Presented at the Environmental Psychology Program, Graduate Center, CUNY, 2003.
- “From the Multicultural Self to the Global Individual: Educating National Citizens in Neoliberal Times.” Presented for Civitas, at the Urban Studies Program, University of Washington, Tacoma, 2003.
- “Geography and Empire: From the Global Past to the Colonial Present”, Dialogue across the Disciplines Symposium, University of Oregon, Eugene, 2003.
- “Neoliberalism and Education: From the Ethical Self to the Global Entrepreneur.” Presented at the Department of Geography, University of Oregon, 2003.
- “Comparative Geographies of Citizenship Education.” Keynote address at the Civic Practices/Civil Societies Lecture Series, University of Kentucky, 2002.
- “John Dewey and the Limits of the Nation.” Presented at the Americanist Colloquium, University of Washington, 2001.

- “Hegemony in Space: Reflections on Landscape and Movement.” Presented at the Anthropology Colloquium, University of Washington, 2001.
- “Global Diasporas and Traditional Towns.” Presented at University College London, 2001.
- “Conflicting Geographies of House and Home in a Global Era.” Presented at the Institute of Anthropology and Culture, Oxford University, 2001.
- “Transnational Migration, Philanthropy and the Rise of the Shadow State.” Presented at the School of Geography, Oxford University, 2001.
- “Liberal Education and its Discontents: Transnational Migration and the Challenges to Dewey.” Presented at the ESRC Research Programme on Transnational Communities, Oxford University, November, 2000.
- “The Monster House and Relations of Power.” Presented at University College London, November, 2000.
- “The End is Near: Apocalypse and Utopia in Contemporary Thought.” Plenary address at the International Association for the Study of Traditional Environments, Trani, Italy, October 14-18, 2000.
- “Transnationalism: Research in the Field.” Presented at the Social Science Research Council, Oxford, U.K., July, 2000.
- “Flexible Citizenship and the Shifting Philosophies of Education.” Presented at the Dual Citizenship and Identity in the Global Context conference at Boston University, May, 2000.
- “Civic Education in Transnational Times: Rethinking Dewey and the Limits of Liberalism.” Presented at the University of Minnesota, April, 2000.
- “John Dewey and the Limits of Liberalism: the Impact of Transnational Migration on Educational Philosophy and Practice.” Presented at the University of Arizona, 2000.
- “Liberal Education and its Discontents: The Impact of Transnational Migration on Canadian Educational Philosophy and Policy.” Presented at the University of Colorado, 1999.
- “Transnational Migration, Multiculturalism, Citizenship and Education at the End of the Millennium.” Presented at Rutgers University, 1999.
- “Education and Democracy in the Late 20th Century.” Presented at the National Academy of Education, Cambridge, 1998.
- “Transnational Migration, Citizenship, and the Politics of Space.” Presented at the University of Kentucky, 1998.
- “Reworking Democracy: Contemporary Immigration and Community Politics in Chinatown.” Presented at Duke University, 1998.
- “Trade and the Environment.” Presented at the Jackson School Summer Institute, ‘World of Trade Routes,’ University of Washington, 1997.
- “Hong Kong Immigration and the Question of Democracy: Contemporary Struggles over Urban Politics in Vancouver, B.C.” Presented at the Cosmopolitan Capitalists Seminar Series, University of Washington, 1997.
- “Transnational Citizenship and the Politics of Space.” Presented at the Hong Kong University of Science and Technology, Hong Kong, 1997.
- “The Hong Kong Diaspora and the Politics of Home.” Presented at the Center for Studies in Demography and Ecology, University of Washington, 1996.
- “The Spatial Politics of Chinatown.” Presented at the Identity, Tradition, and Built Form: The Role of Culture in Planning and Development conference, University of California, Berkeley, 1996.
- “The New Public in the Public Sphere: Citizenship, Democracy and the ‘Monster House’.” Presented at the Ethnic Studies Program, University of British Columbia, 1996.

- "Visions of Vancouver: Ideology, Democracy and the Future of Urban Development." Presented at the Department of Geography, University of Washington, 1995.
- "Conflicting Geographies of the Public Sphere in the Vancouver Suburban Landscape of Shaughnessy Heights." Presented at the Law School, University of Washington, 1994.
- "Getting Your First Job in Academia." Presented at the Northwest Center for Research on Women, University of Washington, 1994.
- "The Cosmopolitan, the Local, Ideology and the Public Landscape." Presented at the Department of Geography, University of British Columbia, 1994.
- "The Hong Kong Immigrant and the Urban Landscape: Shaping the Transnational Cosmopolitan in the Era of Pacific Rim Capital." Presented at the Transnationalization of Overseas Chinese Capitalism: Networks, Nation-States and Imagined Communities Conference, National University of Singapore, 1994.
- "Facing Capital: Racial Politics in Vancouver's Urban Development." Presented at the Department of Geography, University of Victoria, B.C. 1993.

PROFESSIONAL CONFERENCES

- "Intergenerational Mapping and the Cultural Politics of Memory," Association of American Geographers, New York City, February, 2012. With Sarah Elwood.
- "Mapping Children's Politics." International Critical Geographers Conference, Frankfurt, Germany, August, 2011. With Sarah Elwood.
- "Feminist Futures." Association of American Geographers, Seattle, April, 2011.
- "Top This Parenting Dot Com." American Studies Association, San Antonio, November, 2010.
- "Author Meets Critics: Stuart Elden's Terror and Territory." Association of American Geographers, Washington DC, April, 2010.
- "Desperately Seeking the Public Sphere: After School Programs and Civic Life." Association of American Geographers, Washington DC, April 2010. With Sarah Elwood.
- "The Global Racialization of Risk." Association of American Geographers, Boston, April, 2008.
- "Dual Tracking and the Privatization of American Childhood." Association of American Geographers, Chicago, April, 2006.
- "Being and Becoming a Public Scholar." Association of American Geographers, Chicago, March, 2006.
- "Introduction." Reclaiming Childhood Symposium, Changing Relations Between Children and Adults, University of Washington, May, 2005.
- "Introduction." Reclaiming Childhood Symposium, Teachers Speak Out, University of Washington, April, 2005.
- "Neoliberalism and the New Exceptionalism," Association of American Geographers, Denver, March, 2005.
- "Immigrant Integration, Multicultural Backlash and the New Exceptionalism." Association of American Geographers, Philadelphia, March, 2004.
- "Comparative Geographies of Globalization, Neoliberalism and Education," International Critical Geographers, Békéscsaba, Hungary, June, 2002.
- "Transnational Migration, Neoliberalism, and the Rise of the Shadow State," Association of American Geographers, Pittsburgh, April, 2000.
- "Education and Democracy at the End of the Millennium." Presented at the Association of American Geographers, Waikiki, 1999.

- "Transnational Migration and the Reworking of Citizenship." Presented at the American Studies Association conference, Seattle, 1998.
- "Globalizing Cities." International Critical Geographers, Vancouver, June, 1997.
- "Hong Kong Immigrants and Community Struggle in Vancouver." Invited presentation at the Association for Asian American Studies conference, Seattle, 1997.
- "Race and/in Geography: Hybrid Identities and Space." Invited panel presentation at the Association of American Geographers conference, Ft. Worth, April, 1997.
- "Contemporary Chinese Diasporas and the Spatial Politics of Chinatown," Association of American Geographers, Ft. Worth, April, 1997.
- "The Chinese Diaspora and the Northwest," On Brotherly Terms: Canadian-American Relations West of the Rockies, Seattle, September, 1996.
- "Writing Neighborhoods, Rewriting Democracy." Presented at the American Studies Conference, University of Washington, 1996.
- "Hong Kong Diaspora: Transnational Migration and Social Change." Presented at the Politics and Languages of Contemporary Marxism conference, Amherst, March, 1996.
- "Different Diasporas and the Hype of Hybridity," Association of American Geographers, Charlotte, April, 1996.
- "Conflicting Geographies of Democracy and the Public Sphere in Vancouver," Association of Canadian Studies in the United States, Seattle, November, 1995.
- "Multiculturalism, or the Logic of Late Capitalism?" Annual Association of American Geographers, Atlanta, April, 1993.
- "Distinctivizing the Immigrant: Race, Class and the Cultivation of Taste," Association of American Geographers, San Diego, April, 1992.

PUBLIC SCHOLARSHIP

- Organizer, Honors students research and presentation for 4Culture and King County Metro, June, 2011.
- Rotary Club presentation, October, 2010.
- Organizer (with Vicky Lawson), Public Scholarship seminar with Ananya Roy, October, 2010.
- Organizer, Honors students research and presentation for 4Culture and King County Metro, June, 2010.
- Organizer, "UW geography students collaborate with 4Culture," Blog4Culture, March 22, 2010. Accessible at: <http://blog.4culture.org/2010/03/uw-geography-students-collaborate-with-4culture/>
- Board Member, Public Scholarship Certificate Steering Committee, 2009-2012.
- Organizer and chair, "Education and Society in the Contemporary Era," University of Washington, April, 2008. Guests: David Harvey, Cindi Katz, Jean Lave, Paul Willis.
- Organizer and producer, "Constructing Childhood," multi-media installation at Allen Library, May-June, 2007.
- Organizer and chair, Global Education conference, University of Washington, December, 2007.
- Organizer and chair, "Kids Speak Out," Town Hall event, April, 2007.
- Organizer, Writing in Public, Reclaiming Childhood writing workshop for faculty, 2007.
- Organizer (with Frances McCue), "Teachers as Scholars" seminar, March, 2006.
- Organizer, Writing in Public, Reclaiming Childhood writing workshop for graduate students, May, 2006,
- Organizer and chair, Reclaiming Childhood Lecture Series, October-May, 2005-2006.
- Organizer and chair, Reclaiming Childhood Symposium: The Principal View, July, 2005.

Organizer and chair, Reclaiming Childhood Symposium: Changing Relations between Children and Adults, May, 2005.
Organizer and chair, Reclaiming Childhood Symposium: Teachers Speak Out!, April, 2005.

PROFESSIONAL SERVICE

National Positions and Committees

AP Human Geography Board Member, 2009-2011.
Director of the University of Washington, Spaces of Democracy and the Democracy of Space Network, 2008-2012.
Urban Geography Specialty Group President, 2004-2006.
Urban Geography Specialty Group Vice-President, 2002-2004.
Urban Geography Specialty Group Board Member, American Association of Geographers, 2000-2002; 1995-1997.
Book Reviews Editor, Environment and Planning D: Society and Space, 1998-2003.
Social Science Research Council, Committee on Transnational Migration, 2000.
Associate Editor, Global Networks, 1999-
Editorial Board, Annals of the Association of American Geographers, 2004-2006.
Editorial Board, Ecumene, renamed Cultural Geographies, 1999-
Editorial Board, Antipode, 1999-
Editorial Board, Environment and Planning A, 1998—
Editorial Board, Environment and Planning D: Society and Space, 1998-2006.
Editorial Board, Urban Geography, 2006-

Departmental and University Service

University of Washington, Chair, Internal Review Committee, Department of History, 2012.
University of Washington, Chair of Geography, 2008-2013.
Chair, Departmental Executive Committee, 2008-2013.
Chair, Professional Masters Program in GIS: program launch and management, 2010-2013.
University of Washington, Mary Gates Selection Committee, 2010, 2011.
University of Washington, Public Scholarship Certificate Board Member, 2009-2012.
University of Washington Education Minor Leadership Committee, 2009-2011.
Chair, Departmental Web Page Redesign, 2010.
University of Washington, American Indian Studies Chair Search, 2007.
University of Washington, Undergraduate Curriculum Committee, 2006.
Chair, Departmental Web Page Redesign, 2006-2007.
University of Washington, Political Science Chair Search, 2005.
University of Washington, Chester Fritz Selection Committee, 2003.
University of Washington, Internal Review Committee, Department of History, 2002.
Chair, Undergraduate Curriculum Committee, 2001-2003.
Director, Canadian Studies Program, 1999-2000.
University of Washington, Committee to Revise the College Vision, 1999-2000.
Member, Departmental Space and Resources Committee, 1999-2000.
University of Washington, Royalty Research Fund Reviewer, 1994-2001; 2008, 2012
Chair, Departmental Web Page Redesign, 1998-1999.

University of Washington, Fulbright-Hays Selection Committee, 1998, 1999.
Lecturer for Jackson School Summer Outreach, 1997, 1999.

Review Work

National Science Foundation, 1994, 1995, 1996, 1997, 2001, 2002.
Social Science and Humanities Research Council (Canada), 1999.
Social Science Research Council, 2001.
Tenure and Promotion Files, 2002 (1); 2006 (3); 2007 (2); 2008 (1); 2009 (2); 2010 (2);
2011 (3).
External Reviews, University of Colorado at Denver, Dept. of Geography, Geology and
Environmental Science, 2002, University of California, Santa Barbara, Department of
Geography, November, 2012. San Diego State University, Department of
Geography, November, 2012.
Journal Refereeing: *ACME, Annals of the Association of American Geographers,*
Antipode, Area, Berkeley Review of Education, BC Studies, Canadian Geographer,
Cultural Geographies, Economic Geography, Gender, Place and Culture, Geoforum,
Global Networks, Environment and Planning A, Environment and Planning D:
Society and Space; IJURR, Political Geography; Progress in Human Geography;
Positions, Professional Geographer, Signs, Social and Cultural Geography,
Tidschrift, Transactions of the Institute of British Geographers, Urban Geography,
Urban Affairs Review.

MA Supervision (completed)

Monica Weiler VARSANYI Proposition 187: Xenophobia, the feminized immigrant, and
public spaces of reproduction in a transnational era. [1996]
Margaret HAWLEY Would you like rice with that? Globalization, cultural hierarchies and
Filipina American food service workers. [1998]
Mary KAEHNY Citizen representation in growth management: An evaluation of Seattle's
neighborhood planning process. [1999]
Catherine VENINGA The Political Economy of New Urban Space: A Case Study of
Northwest Landing. [1999]
Anne WIBERG-ROZAKLIS The educational gaze: the public classroom and competing
national discourses post-September 11th.[2005]
Rowan ELLIS "Dravida Nadu for Dravidians": Discourse on place and identity in early
and mid-twentieth century Tamil Nadu [2006]
Anneliese STEUBEN Segregated pedagogies in an era of standardization: Stories of
progressive teaching in the Seattle metropolitan area [2007]
Patricia LOPEZ An Historically Situated Case For Children's Right To Health: The Birth
of the Model Cities Clinic of Odessa Brown Children's Clinic [2009]
Chris LIZOTTE The Children of Choice: Public Education Reform and the Evolution of
Neoliberal Governance [2011]

PhD Supervision (completed)

Douglas Grant MERCER The Nature of Fairness: What the Biggest Cleanup Effort in
History Has to Say About the Culture of American Environmental Management.
[1999]

Pervin Banu GOKARIKSEL Situated modernities: Geographies of identity, urban space and globalization. [2003]

Charles TOVARES Race and the Production of Public Space. [2003]

Brian HAMMER New Urban Spaces for a Twenty-First Century China. [2005]

Mona ATIA Building a House in Heaven: Islamic Charity in Neoliberal Egypt. [2008]

Rowan ELLIS Civil Society, Savage City: Urban Governance and the Liberalizing State in Chennai, India. [2009]

Ongoing PhD: Léonie Newhouse, Patricia Lopez, Chris Lizotte.

Ongoing MA: Lynda Turet

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Appointments

2012- Associate Professor, Dept. of Biology, University of Utah, beginning July 1
2010-2012 Director, Center for Environmental Biology, School of Biological Sciences,
University of California, Irvine
2010-2011 Vice Chair for Undergraduate Programs, Dept. of Earth System Science, School
of Physical Sciences, University of California, Irvine
2007-2012 Associate Professor, Dept. of Earth System Science and Dept. of Ecology &
Evolutionary Biology, University of California, Irvine
2004-2007 Assistant Professor, University of California, Irvine
2000-2004 Research Assistant Professor, Department of Biology, University of Utah
1999-2003 IGBP-GCTE Focus 1 Program Officer, University of Utah
1998-1999 Post-doctoral Research Associate, Desert Research Institute, Univ. of Nevada

Education

1998 Ph.D. Nicholas School of the Environment, Duke University, Durham, NC
1995 M.S. School of the Environment, Duke University, Durham, NC
1993 B.A. Barnard College, Columbia University, New York, NY

Academic Service and Distinctions

2012- Sustained Land Imaging Program committee, National Research Council
2011- Board of Scientific Counselors, U.S. Environmental Protection Agency
2011 Director, Steele Burnand Anza Borrego Desert Research Center
2010- Science Committee, Ecological Society of America
2009-2010 Energy Sustainability subcommittee, U.S. Dept. of Energy, Biological and
Environmental Research Strategic Planning Committee
2009-2011 Director, Anza Borrego Field Station Initiative, UC Irvine
2009-2011 Steering Committee, Environment Institute, UC Irvine
2008 James B. Macelwane Medalist, American Geophysical Union
2008- Fellow, American Geophysical Union
2008-2011 Carbon Cycle Scientific Steering Group, U.S. Climate Change Science Program
2008-2009 User working group, Carbon Dioxide Information Analysis Center (CDIAC)
2008-2011 University of California Natural Reserve Systemwide Committee
2007-2009 Membership Committee, University Corporation for Atmospheric Research
2006-2010 Ecohydrology Executive Committee, American Geophysical Union
2007 Lead Author, U.S. Climate Change Science Program Synthesis and Assessment
Product 2.2, State of the Carbon Cycle Report, Chapter 14: Human Settlements
2005-2010 Subject Editor, *Global Change Biology* journal
2004-2011 Board of Advisors to the Editor, *New Phytologist* journal
2000-2010 Steering Committee, Biosphere-Atmosphere Stable Isotope Network (BASIN)

2000-2005 Steering Committee, Terrestrial Ecosystem Responses to Atmospheric and Climatic Change (TERACC) network

Publications

(lab members in bold)

71. **Djuricin S, Pataki DE**, Parker SC. In review. The influence of climate and pollution on tree growth and isotopic composition in the Los Angeles basin.
70. **Djuricin S**, Xu X, **Pataki DE**. In revision. The radiocarbon composition of tree rings as a tracer of local fossil fuel emissions in the Los Angeles basin: 1980-2008.
69. **Townsend-Small A**, Tyler SC, **Pataki DE**, Xu X, Christensen LE. 2012. Isotopic measurements of atmospheric methane in Los Angeles, California, USA reveal the influence of "fugitive" fossil fuel emissions. *JGR Atmospheres*, In press.
68. Pincetl S, Gillespie TW, **Pataki DE**, Saatchi S, Saphores J-D. 2012. Urban tree planting programs, function or fashion? Los Angeles and urban tree planting campaigns. *GeoJournal*, In press.
67. **Litvak E, McCarthy HR, Pataki DE**. 2012. Transpiration from urban trees in a semi-arid climate is constrained by xylem vulnerability to cavitation. *Tree Physiology*, In press.
66. **Bijoor NS, McCarthy HR, Zhang D, Pataki DE**. 2012. Water sources of urban trees in the Los Angeles metropolitan area. *Urban Ecosystems* 15(1): 195-214.
65. **Goedhart CM, Pataki DE**. 2012. Do arid species use less water than mesic species in an irrigated common garden? *Urban ecosystems* 15(1): 215-232.
64. Gillespie TW, Pincetl S, Brossard S, Smith J, Saatchi S, **Pataki DE**, Saphores J-D. 2012. A time series of urban forestry in Los Angeles. *Urban Ecosystems* 15(1): 233-246.
63. **Wang W, Pataki DE**. 2012. Drivers of spatial variability in urban plant and soil isotopic composition in the Los Angeles Basin. *Plant and Soil* 350: 323–338.
62. **Townsend-Small A**, Rosso D, **Pataki DE**, Tseng L, Tsai C-Y. 2011. Nitrous oxide emissions from water reclamation plants in southern California. *Journal of Environmental Quality* 40: 1542-1550.
61. **McCarthy HR, Pataki DE**, Jenerette GD. 2011. Plant water use efficiency as a metric of urban ecosystem services. *Ecological Applications*, 21(8): 3115–3127.
60. **Bijoor, NS, Pataki DE**, Rocha AV, Goulden ML. 2011. The application of $\delta^{18}\text{O}$ and δD for understanding water pools and fluxes in a *Typha* marsh. *Plant, Cell and Environment* 34(10): 1761–1775.
59. McKinley DC, Ryan MG, Birdsey RA, Giardina CP, Harmon ME, Heath LS, Houghton RA, Jackson RB, Morrison JF, Murray BC, **Pataki DE**, Skog KE. 2011. A synthesis of current knowledge on forests and carbon storage in the United States. *Ecological Applications*, 21: 1902-1924..

58. **Litvak E, McCarthy HR, Pataki DE.** 2011. Water relations of coast redwood planted in the semi-arid climate of southern California. *Plant, Cell and Environment* 34(8): 1384-1400.
57. **Goedhart CM, Pataki DE.** 2011. Ecosystem effects of groundwater depth in Owens Valley, California. *Ecohydrology*, 4(3): 458-468.
56. **Pataki DE, McCarthy HR, Litvak E, Pincetl S.** 2011. Transpiration of urban forests in the Los Angeles metropolitan area. *Ecological Applications* 21(3): 661-677.
55. **Pataki DE, Boone CG, Hogue TS, Jenerette GD, McFadden JP, Pincetl S.** 2011. Socio-ecohydrology and the urban water challenge. *Ecohydrology* 4(2): 341-347.
54. **Townsend-Small A, Pataki DE, Czimczik CI, Tyler SC.** 2011. Nitrous oxide emissions and isotopic composition in urban and agricultural systems in southern California. *JGR Biogeosciences*, 116, G01013, doi:10.1029/2010JG001494, 2011.
53. **Pataki DE, Carreiro MM, Cherrier J, Grulke NE, Jennings V, Pincetl S, Pouyat RV, Whitlow TH, Zipperer WC.** 2011. Coupling biogeochemical cycles in urban environments: Ecosystem services, green solutions, and misconceptions. *Frontiers in Ecology and the Environment* 9: 27-36.
52. **McCarthy HR, Pataki DE.** 2010. Drivers of variability in water use of native and non-native urban trees in the Greater Los Angeles area. *Urban Ecosystems* 13(4): 393-414.
51. **Djuricin S, Pataki DE, Xiaomei Xu.** 2010. A comparison of tracer methods for quantifying CO₂ sources in an urban region. *JGR Atmospheres* 115, D11303 doi:10/1029/2009JD012236.
50. **Pataki DE, Randerson JT, Wang W, Herzenach MK, Grulke NE.** 2010. The carbon isotope composition of plants and soils as biomarkers of pollution. *In* West JB, Bowen G, Dawson TE, Eds. *Isoscapes: Understanding movement, pattern, and process on Earth through isotope mapping.* Springer, New York.
49. **Goedhart CM, Pataki DE, Billings SA.** 2010. Seasonal variations in plant nitrogen relations and photosynthesis along a grassland to shrubland gradient in Owens Valley, California. *Plant and Soil* 327:213-223.
48. **Wang W, Pataki DE.** 2010. Spatial patterns of plant isotope tracers in the Los Angeles urban region. *Landscape Ecology* 25(1): 35-52.
47. Kennedy C, Steinberger J, Gasson B, Hansen Y, Hillman T, Havranek M, **Pataki D**, Phdungsilp P, Ramaswami A, Mendez GV. 2010. Methodology for inventorying greenhouse gas emissions from global cities. *Energy Policy* 38(9): 4828-4837.
46. Kennedy C, Steinberger J, Gasson B, Hansen Y, Hillman T, Havranek M, **Pataki D**, Phdungsilp P, Ramaswami A, Mendez GV. 2009. Greenhouse gas emissions from global cities. *Environmental Science and Technology*, 43, 7297-7302.
45. Jackson RB, Randerson JT, Canadell JG, Anderson RG, Avissar R, Baldocchi DD, Bonan GB, Caldeira K, Diffenbaugh NS, Field CB, Hungate BA, Jobbagy EG, Kueppers LM, Noretto MD, **Pataki DE.** 2008. Protecting climate with forests. *Environmental Research*

Letters 3(4): DOI: 10.1088/1748-9326/3/4/044006.

44. **Pataki DE**, Emmi PC, Forster CB, Mills JI, Pardyjak ER, Peterson TR, Thompson JD, Dudley-Murphy E. 2009. An integrated approach to improving fossil fuel emissions scenarios with urban ecosystem studies. *Ecological Complexity* 6(1):1-14.
43. Riley WJ, Hsueh DJ, Randerson JT, Fischer ML, Hatch JG, **Pataki DE**, Goulden ML. 2008. Where do fossil fuel carbon dioxide emissions from California go? An analysis based on radiocarbon observations and an atmospheric transport model. *JGR Biogeosciences* 113, G04002, doi:10.1029/2007JG000625.
42. Hultine KR, Bush SE, West AG, Burtch KG, **Pataki DE**, Ehleringer JR. 2008. Gender-specific patterns of aboveground allocation, canopy conductance and water use in a dominant riparian tree species: *Acer negundo*. *Tree Physiology* 28(9) 1383-1394.
41. **Bijoor NS**, Czimczik C, **Pataki DE**, Billings SA. 2008. The effects of temperature and fertilization on nitrogen cycling and community composition of an urban lawn. *Global Change Biology* 14: 1-13.
40. **Pataki DE**, Billings SA, Naumburg E, **Goedhart CM**. 2008. Water sources and nitrogen relations of grasses and shrubs in phreatophytic communities of the Great Basin Desert. *Journal of Arid Environments*, 72(9):1581-1593.
39. Grimm NB, Foster D, Groffman P, Grove JM, Hopkinson CS, Nadelhoffer K, **Pataki DE**, Peters D. 2008. The changing landscape: ecosystem responses to urbanization and pollution across climatic and societal gradients. *Frontiers in Ecology and the Environment*, 6(5): 264-272.
38. **Ngo NS**, **Pataki DE**. 2008. The energy and mass balance of Los Angeles County, *Urban Ecosystems*, 11:121-139.
37. **Bush SE**, **Pataki DE**, Hultine KR, West AG, Sperry JS, Ehleringer JR. 2008. Wood anatomy constrains stomatal responses to atmospheric vapor pressure deficit in irrigated, urban trees. *Oecologia*, 156:13-20.
36. Bowling DR, **Pataki DE**, Randerson JT. 2008. Carbon isotopes in terrestrial ecosystem pools and CO₂ fluxes. *New Phytologist*, 178(1): 24–40.
35. Gurney K, Ansely W, Mendoza D, Petron G, Frost G, Gregg J, Fischer, M, **Pataki D**, Acerkman K, Houseling S, Corbin K, Andres R, Blasing TJ. 2007. Research needs for finely resolved fossil carbon emissions. *EOS* 88(40): 542-543
34. **Pataki DE**, Xu T, Luo YQ, Ehleringer JR. 2007. Inferring biogenic and anthropogenic CO₂ sources across an urban to rural gradient. *Oecologia* 152: 307-322.
33. **Bush SE**, **Pataki DE**, Ehleringer JR. 2007. Sources of variation in $\delta^{13}\text{C}$ of fossil fuel emissions in Salt Lake City, USA. *Applied Geochemistry* 22: 715-723.
32. **Pataki DE**, Lai CT, Keeling CD, Ehleringer JR. 2007. Insights from stable isotopes on the role of terrestrial ecosystems in the global carbon cycle. *In Terrestrial Ecosystems in a Changing World*. Canadell JG, Pataki DE, Pitelka LF, Eds, Springer, Berlin.

31. Pouyat RV, **Pataki DE**, Belt KT, Groffman PM, Hom J, Band LE. 2007. Effects of urban land use change on biogeochemical cycles. *In Terrestrial Ecosystems in a Changing World*. Canadell JG, Pataki DE, Pitelka LF, Eds, Springer, Berlin.
30. Canadell JG, **Pataki DE**, Gifford R, Houghton R, Luo Y, Raupach M, Smith P, Steffen W. 2007. Saturation of the terrestrial carbon sink. *In Terrestrial Ecosystems in a Changing World*. Canadell JG, Pataki DE, Pitelka LF, Eds, Springer, Berlin.
29. Canadell JG, **Pataki DE**, Pitelka LF, Eds. 2007. *Terrestrial Ecosystems in a Changing World*, Springer, Berlin.
28. **Pataki DE**, Alig RJ, Fung AS, Golubiewski NE, Kennedy CA, McPherson EG, Nowak DJ, Pouyat RV, Romero Lankao P. 2006. Urban ecosystems and the North American Carbon Cycle. *Global Change Biology*, 12: 2092-2101, doi: 10.1111/j.1365-2486.2006.01242.x
27. **Pataki DE**, Bowling DR, Ehleringer JR, Zobitz JM. 2006. High resolution monitoring of urban carbon dioxide sources. *Geophysical Research Letters*, 33, L03813, doi:10.1029/2005GL024822
26. Aranibar JN, Berry JA, Riley WJ, **Pataki DE**, Law BE, Ehleringer JR. 2006. Combining meteorology, eddy fluxes, isotope measurements, and modeling to understand environmental controls of carbon isotope discrimination at the canopy scale. *Global Change Biology* 12: 710-730.
25. **Pataki DE. 2005**. Emerging topics in stable isotope ecology: are there isotope effects in plant respiration? *New Phytologist*, 167: 321-323.
24. **Pataki DE, Bush SE**, Gardner P, Solomon DK, Ehleringer JR. 2005. Ecohydrology in a Colorado River riparian forest: Implications for the decline of *Populus fremontii*. *Ecological Applications* 15(3): 1009-1018.
23. **Pataki DE**, Tyler BJ, Peterson RE, Nair AP, Steenburgh WJ, Pardyjak ER. 2005. Can carbon dioxide be used as a tracer of urban atmospheric transport? *Journal of Geophysical Research – Atmospheres*, 110: D15102.
22. **Pataki DE, Bush SE**, Ehleringer JR. 2005. Stable isotopes as a tool in urban ecology. *In Stable isotopes and biosphere-atmosphere interactions: Processes and biological controls*. Flanagan LB, Ehleringer JR, Pataki DE, Eds. Elsevier Press, San Diego, pp 199-214.
21. Flanagan LB, Ehleringer JR, **Pataki DE**, Eds. 2005. *Stable isotopes and biosphere-atmosphere interactions: Processes and biological controls*. Elsevier Press, San Diego.
20. Luo Y, Su B, Currie WS, Dukes JS, Finzi A, Hartwig U, Hungate B, McMurtrie R, Oren R, Parton WJ, **Pataki DE**, Shaw R, Zak DR, Field C. 2004. Progressive nitrogen limitation of ecosystem responses to rising atmospheric CO₂. *Bioscience* 54(8): 731-739.
19. Morgan JA, **Pataki DE**, Gruenzweig J, Körner C, Newton P, Niklaus PA, Nippert J, Nowak RS, Parton W, Clark H, Del Grosso SJ, Knapp AK, Mosier AR, Polley W, Shaw R. 2004. Grassland responses to rising atmospheric CO₂ are driven primarily by water relations. *Oecologia* 140: 11-25.

18. **Pataki DE**, Bowling DR, Ehleringer JR. 2003. Seasonal cycle of carbon dioxide and its isotopic composition in an urban atmosphere: anthropogenic and biogenic effects. *Journal of Geophysical Research – Atmospheres* 108(D23), 4735
17. **Pataki DE**, Oren R. Species differences in stomatal control of water loss at the canopy scale in a mature bottomland deciduous forest. 2003. *Advances in Water Resources* 26(12): 1267-1278.
16. **Pataki DE**, Ellsworth DW, Evans RD, Gonzalez-Meler M, King JS, Leavitt SW, Lin G, Matamala R, Pendall E, Siegwolf R, van Kessel C, Ehleringer JR. 2003. Tracing changes in ecosystem function under elevated CO₂. *Bioscience* 53(9): 805-818.
15. Bowling DR, **Pataki DE**, Ehleringer JR. 2003. Critical evaluation of micrometeorological methods for measuring ecosystem-atmosphere isotopic exchange of CO₂. *Agricultural and Forest Meteorology* 116: 159-179.
14. **Pataki DE**, Ehleringer JR, Flanagan LB, Yakir D, Bowling DR, Still C, Buchmann N, Kaplan JO, Berry JA. 2003. The application and interpretation of Keeling plots in terrestrial carbon cycle research. *Global Biogeochemical Cycles* 17(1), 1022
13. Canadell J, **Pataki DE**. 2002. New advances in carbon cycle research. *Trends in Ecology and Evolution* 17(4): 156-158.
12. **Pataki DE**. 2002. Atmospheric CO₂, climate and evolution – lessons from the past. *New Phytologist* 154:10-14.
11. Oren R, **Pataki DE**. 2001. Transpiration in response to variation in microclimate and soil moisture in southeastern deciduous forests. *Oecologia* 127: 549-559.
10. Oren R, Sperry JS, Ewers BE, **Pataki DE**, Phillips N, Megonigal JP. 2001. Sensitivity of mean canopy stomatal conductance to vapor pressure deficit in a flooded *Taxodium distichum* L. forest: hydraulic and non-hydraulic effects. *Oecologia* 126:21–29.
9. **Pataki DE**, Huxman TE, Jordan DN, Zitzer SF, Coleman JS, Smith SD, Nowak RS, Seemann JR. 2000. Water use of two Mojave Desert shrubs under elevated CO₂. *Global Change Biology* 6(8): 889-898.
8. **Pataki DE**, Oren R, Smith WK. 2000. Sap flux of co-occurring species in a western subalpine forest during seasonal soil drought. *Ecology* 81(9) 2557-2566.
7. Oren R, Phillips N, Ewers BE, **Pataki DE**, Megonigal JP. 1999. Sap-flux-scaled transpiration responses to light, vapor pressure deficit, and leaf area reduction in a flooded *Taxodium distichum* forest. *Tree Physiology* 19:337-347.
6. Oren R, Sperry JS, Katul GG, **Pataki DE**, Ewers BE, Phillips N, Schäfer KVR. 1999. Survey and synthesis of intra- and interspecific variation in stomatal sensitivity to vapour pressure deficit. *Plant, Cell and Environment* 22: 1515-1526.

5. **Pataki DE**, Oren R, Phillips N. 1998. Responses of sap flux and stomatal conductance of *Pinus taeda* L. trees to stepwise reductions in leaf area. *Journal of Experimental Botany* 49: 871-878.
4. **Pataki DE**, Oren R, Tissue DT. 1998. Elevated carbon dioxide does not affect stomatal conductance of *Pinus taeda* L. *Oecologia* 117: 47-52.
3. **Pataki DE**, Oren R, Katul G, Sigmon J. 1998. Canopy conductance of *Pinus taeda*, *Liquidambar styraciflua* and *Quercus phellos* under varying atmospheric and soil moisture conditions. *Tree Physiology* 18: 307-315.
2. Oren R, Phillips N, Katul G, Ewers BE, **Pataki DE**. 1998. Scaling xylem sap flux and soil water balance, and calculating variance: a method for partitioning water flux in forests. *Annales des Sciences Forestieres* 55: 191-216.
1. Katul G, Todd P, **Pataki DE**, Kabala ZJ, Oren R. 1997. Soil water depletion by oak trees and the influence of root water uptake on the moisture content spatial statistics. *Water Resources Research* 33(4):611-623.

Conference and invited presentations

- “Multidisciplinary water science: Linking social, physical, computational and ecological approaches to sustainable water resources”, Utah State University (invited), April 2012
- American Geophysical Union fall meeting (invited), December 2011
- UK Royal Horticultural Society, John McLeod Annual Lecture (invited), London, November 2011
- Ecological Society of American meeting (invited), Austin, TX, August 2011
- Stanford University, Dept. of Environmental Earth System Science (invited), May 2011
- University of Utah, Global Change and Ecosystem Center (invited), April 2011
- UCLA, Institute of the Environmental and Sustainability (invited), February 2011
- American Geophysical Union fall meeting (invited), December 2010
- ACES conference: A Community of Ecosystem Services (invited), December 2010
- UCLA, Dept. of Ecology & Evol. Biology (invited), October 2010
- Ecological Society of America meeting (invited), Pittsburgh, PA, August 2010
- UC Irvine Discover the Physical Sciences Breakfast Lecture (invited), May 2010
- UCLA, Dept. of Geography (invited), April 2010
- MillionTreesNYC, Green Infrastructure, and Urban Ecology: A research symposium (invited), New York City, March 2010
- Atmospheric Sciences Symposium, UC Berkeley (keynote), February 2010
- American Geophysical Union fall meeting (invited), December 2009
- UC Irvine Allergan Lecture, October, 2009
- AGU Chapman Conference: Examining Ecohydrological Feedbacks of Landscape Change Along Elevation Gradients in Semiarid Regions (invited), Sun Valley, ID October, 2009
- National Science Foundation Environmental Research and Education (ERE) committee presentation (invited), September 2009
- Ecological Society of America meeting (Recent advances keynote address), Albuquerque, NM, August 2009

- Ecological Society of America Congressional Briefing (invited), U.S. Congress, Washington DC, July 2009
- University of Maryland, Baltimore County (invited), February 2009
- American Geophysical Union meeting (invited), San Francisco, CA, December 2008
- Arizona State University, Tempe, AZ (invited), September 2008
- California Energy Commission Climate Change conference (invited), Sacramento, CA September 2008
- Oxford University (invited), Oxford, UK, July 2008
- Center for Urban Horticulture, UC Davis (invited), May 2008
- Isoscapes Conference (invited), Santa Barbara, CA, April 2008
- University of Illinois (invited), Chicago, IL, April 2008
- Northeast Section of the American Society of Plant Biologists (keynote address), Storrs, CT, April 2008
- San Diego State University (invited), March 2008
- National Center for Ecological Analysis and Synthesis (invited), January 2008
- American Geophysical Union meeting, San Francisco, CA, December 2007
- Cornell University (invited), November 2007
- Ecological Society of America meeting, San Jose, CA, August 2007
- Cites and Global Climate Change Conference (invited), Irvine, CA April 2007
- Stanford University (invited), Palo Alto, CA, February 2007
- American Geophysical Union meeting, San Francisco, CA, December 2006
- IUFRO Canopy Processes workshop: Regional forest responses to environmental change (invited), Northeastern U.S., October 2006.
- 3rd Annual California Energy Commission Climate Change Conference, September 2006
- Global Carbon Project Conference: Carbon Management at Urban and Regional Levels - Connecting Development Decisions to Global Issues, Mexico City, September 2006
- Isotopes as Tracers of Ecological Change, Tomar, Portugal, March 2006
- University of New Hampshire (invited), Durham, NC, February 2006
- University of California, Riverside (invited), January 2006
- American Geophysical Union meeting, San Francisco, CA, December 2005
- CSIRO, Australia (invited), April 2005
- 11th Annual U.S.-Japan Workshop on Global Change (invited), Yokohama, Japan 2005
- University of Illinois, Urbana-Champaign (invited), March 2005
- California State University, Los Angeles (invited), February 2005
- Ecological Society of America meeting, Montreal, Canada, August 2005
- 21st Conference on Weather Analysis and Forecasting/17th Conference on Numerical Weather Prediction, Washington D.C., August 2005
- American Geophysical Union meeting, San Francisco, CA, December 2004
- BASIN/SIBAE meeting: Partitioning of fluxes between the biosphere and the atmosphere across spatial scales, Interlaken, Switzerland, April 2004.
- BASIN/SIBAE meeting: Oxygen isotopes as a tracer linking global O₂, CO₂, and H₂O cycles, Marshall, California, September 2004.
- American Geophysical Union meeting, San Francisco, CA, December 2003
- Ecological Society of America Conference, Savannah, GA, August 2003
- Integrating Science and Management on the Colorado Plateau, Flagstaff, AZ., November 2003
- CO₂ and Water Workshop, Basel, Switzerland, August 2002
- Ecological Society of America Conference, Tuscon, AZ, August 2002

- BASIN workshop, Banff, Canada, May 2002
- Ninth Annual Workshop on Weather Prediction in the Intermountain West, Salt Lake City, UT, November 2002.
- American Geophysical Union meeting, San Francisco, CA, December 2001
- Ecological Society of America meeting Madison, WI, August 2001.
- Sixth CO₂ conference, Sendai, Japan, October 2001
- American Geophysical Union meeting, San Francisco, CA, December 2000
- Great Basin Biological Research Conference, Reno, NV, October 1999
- Ecological Society of America meeting, Spokane, WA, August 1999
- American Geophysical Union meeting, San Francisco, CA, December 1998
- Ecological Society of America meeting, Albuquerque, NM, August 1997
- Ecological Society of America meeting, Providence, RI, August 1996

Grants

“Energy neutral sustainable cities: balancing local supply and demand with renewable resources,” NSF SEP, \$2,000,362, 8/1/12-7/31/16, Pardyjak, Burian, Metzger, Pataki, Yin (pending)

“Multi-scale linkages between greenhouse gases and air quality: from local urban land use to regional atmospheric composition,” NASA IDS, \$1,224,582, 8/1/12-7/31/15, Lin, Dennison, Pataki, Strong, Ehleringer (pending)

“WSC-Category 3: Collaborative: The role of local water resources in the water sustainability of Los Angeles,” NSF, Utah portion \$459,140, 7/1/12-6/30/16, Pataki, Pincetl, Hogue (pending)

“iUtah-innovative Urban Transitions and Aridregion Hydro-sustainability”, NSF EPSCoR, \$20,000,000, 8/1/12-7/31/17, Crowl, Baker, Ehleringer, Jackson-Smith, Pataki (pending)

“Mobile greenhouse gas flux analyzer for unmanned aerial vehicles,” NASA SBIR, Univ of Utah subcontract \$75,000, 1/1/13-12/31/13, primary awardee Los Gatos Research, Inc. (current)

“Collaborative research: Mechanisms for the decline of leaf hydraulic conductance with dehydration, and plant- and environment-level impacts dehydration, and plant- and environment-level impacts,” NSF IOS, UCI portion \$198,849, 2/1/12-1/31/15, Sack, Pataki, Buckley (current)

“Collaborative research: Ecological homogenization of urban America,” NSF-Macrosystems, UCI portion \$222,634, 6/30/11-7/1/14, Groffman, Grove, Hobbie, Cavender-Bares, Nelson, Polsky, Hall, Larson, Heffernan, Ogden, Neill, Pataki, Chowdhury (current)

“Collaborative Research: Toward a biogeography of urban forests,” NSF-DEB, \$691,498, 9/1/09-8/31/12, Pataki, Jenerette, Pincetl, Gillespie (current)

“Dynamics of urban ecosystem services and their relationship to ecohydrology: Exploratory study for a Los Angeles Urban Long-term Research Site (LA-ULTRA)”, NSF-ULTRA, \$299,429, 1/1/10-12/31/11, Pincetl, Boone, Hogue, McFadden, Pataki (current)

“Reductions in urban outdoor water use as an adaptation to rising temperatures and declining water supplies in southern California,” California Energy Commission PIER, \$199,737, 4/1/10 – 3/31/12, Pataki, Hogue, Pincetl (current)

“Forest-Atmosphere Carbon Transfer and Storage (FACTS-1)”, U.S. Dept. of Energy, UCI subcontract \$66,068, 12/1/09-11/30/12, Oren

“Creating sustainability indicators to assess the physical, social, and economic values of greening cities,” EPA-STAR, \$369,577, 5/07-8/10, Saphores and Pataki, UCI, Pincetl and Saatchi, UCLA

“Distinguishing between greenhouse gas emissions from cropland, animal operations, and urban land cover with isotopic tracers,” USDA Air Quality, \$499,276, 1/1/07 – 12/31/10, Pataki, Tyler, Trumbore

“Collaborative Research: A study in the dynamics of human behavior in institutional innovation and learning,” NSF-HSD, \$748,712, 9/1/06 – 10/31/10, Pincetl and Saatchi, UCLA, Pataki and Saphores, UCI

“The spatial distribution of isotopic tracers in urban organic matter: understanding multiple and confounding effects of human activities on urban vegetation” NSF Geography, \$299,914, 8/06 – 1/10, Pataki

“Sources of dissolved nitrogen to urban watersheds in Orange County, California,” UCI CORCLR, \$24,876, 7/1/07-6/30/06, Pataki and Cooper

“Acquisition of capability for single-compound AMS measurement of organic matter at the W.M. Keck Carbon Cycle Accelerator Mass Spectrometry Facility at UC Irvine” NSF EAR, \$411,163, Druffel, Pataki, Southon, Treseder, Trumbore, 11/05 – 10/08

“Improving greenhouse gas emissions inventories in California with atmospheric measurements,” UC Energy Institute, \$35,000, 7/06 – 6/07, Pataki

“Controls on C and N cycling in a Southern California urban turfgrass ecosystem” Kearney Foundation of Soil Science, \$39,951, 1/06 – 12/06, Pataki

“Plant water use in Owens Valley, CA: Understanding the influence of climate and depth to groundwater.” UC Center for Water Resources, \$57,882, Pataki, 7/05 – 6/07

Research Experience for Undergraduates, NSF cross-directorate, \$30,000, Forster, Pataki, Emmi, Klewicki and Peterson, 1/04-2/07

“Urban trace-gas emissions study (UTES): Interactions between canopy processes, anthropogenic emissions, and social institutions in the Salt Lake Valley, Utah.” NSF-biocomplexity, \$1,498,173, Pataki, Emmi, Forster, Klewicki, Peterson, 9/02-2/07

“Is carbon sequestration a feasible management goal for urban soils? Exploratory research in the Los Angeles Basin” Newkirk Center for Science and Society, \$12,500, Pataki and Trumbore, 9/05 – 9/06

Workshop: "Carbon respiration from terrestrial ecosystems – reducing uncertainties in the role played by respiration in the global carbon cycle." NSF-CaRTE, \$72,277, Trumbore, 9/02-8/04

"Support of the GCTE Focus 1 Office (Ecosystem Processes in Biogeochemical Cycles)", NASA, \$170,660, Ehleringer and Pataki, 2/02-12/03

Workshop: "Tracing carbon in elevated CO₂ experiments: A workshop on isotopic analyses of where the carbon is going." DOE \$19,774, Ellsworth and Pataki, 1/01-1/02

Teaching

Courses Taught at UC Irvine:

ESS 226 Land surface processes (graduate)

ESS 218 Terrestrial Ecology (graduate)

ESS 60B Local and Regional Environmental Issues (undergraduate lower division)

BIO E127/ESS 168/268 Physiological Plant Ecology (undergraduate upper division/graduate)

BIO 2B The Ecology of Your Backyard (freshman seminar)

BIO 2B Water in the West (freshman seminar)

BIO 2B Trees of the World (freshman seminar)

US 13A Environmental Studies (undergraduate lower division)

Graduate students supervised:

Christine Goedhart, Ph.D., 2010, now a lecturer, Citrus College

Neeta Bijoor, Ph.D., 2010, now a post-doctoral researcher, UC Irvine

Sonja Djuricin, Ph.D., 2011, now a post-doctoral researcher, UC Irvine

Elizaveta Litvak, current

Wenwen Wang, current

Post-doctoral researchers supervised:

Amy Townsend-Small, now an Asst. Prof, University of Cincinnati

Heather McCarthy, now an Asst. Prof, University of Oklahoma

Other professional activities

Conferences and Events

Co-organizer, "Ecological monitoring and research to support adaptive management of Orange County open space." January 27, 2012, Irvine, CA, USA.

Co-organizer, "Non-steady state isotopic enrichment of leaf water" December 4, 2005, San Francisco, CA.

Steering committee, "Modeling ecosystem responses to global change: Techniques and recent advances" January 9-12, 2005, Fort Meyers Fl, USA

Co-organizer, "Oxygen isotopes as a tracer linking global O₂, CO₂, and H₂O cycles." September 19-22, 2004, Marshall, California, USA.

Co-organizer, "Carbon Respiration from Terrestrial Ecosystems: Reducing uncertainties in the role played by respiration in the global carbon cycle." January 21-24, 2004, Laguna Beach, California, USA.

Steering committee, "Interactions between increasing CO₂ and temperature in terrestrial ecosystems." April 27-30, 2003, Lake Tahoe, California, USA.

Co-organizer, "CO₂ and water: The biosphere-atmosphere-hydrosphere loop driven by plant responses to CO₂ enrichment." Aug. 17-20, 2002, Basel, Switzerland.

Steering committee, "Biological controls on the stable isotope composition of atmospheric carbon dioxide, methane and nitrous oxide: processes and applications." May 12-14, 2002, Banff, Canada.

Steering committee, "From transient to steady state responses of ecosystems to CO₂ enrichment and global warming." April 28-May, 2002, Durham, NH, USA.

Co-organizer, "Tracing carbon in elevated CO₂ experiments: a workshop on isotopic analyses of where the carbon is going." Oct. 19-21, 2001, Durham, NC, USA

Co-organizer, "Progressive nitrogen limitation of plant and ecosystem responses to elevated CO₂." May 10-12, 2001, Santa Barbara, CA , USA (continuing NCEAS series).

Steering committee, "FACE 2000 conference." June 25-30, 2000, Tsukuba, Japan.

Memberships

Ecological Society of America
American Geophysical Union
International Association for Urban Climate

DONNA JEANPEUQUET

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Education

B.A. (Geography), State University of New York at Buffalo, 1965-1968
M. A. (Geography), University of Cincinnati, 1968-1971
Ph. D. (Geography, with minor in computer science) State University of New York at Buffalo 1974-1977

Professional Experience

February 1971 - September 1974
Senior Planner, Department of Planning and Development, City of Niagara Falls, NY

September 1974 - December 1975
Research Assistant, Department of Geography, State University of New York at Buffalo

January 1976 - August 1976
Research Associate, International Geographical Union, Commission on Geographical Data Sensing and Processing

September 1976 - August 1978
Clinical Lecturer, Department of Geography, State University of New York at Buffalo

September 1978 - August 1979
Clinical Assistant Professor, Department of Geography, State University of New York at Buffalo

April 1979 - September 1979
W.A.E. Scientist, RALI Program, U. S. Geological Survey (Reston, Virginia)

September 1979 - October 1979
Research Assistant Professor, State University of New York at Buffalo

October 1979 - June 1982
Geographer, Earth Resources Observation Systems Office, U. S. Geological Survey (Reston, Virginia)

July 1982 - December 1985
Research Assistant Professor, University of California at Santa Barbara

January 1986 - June 1995
Associate Professor, The Pennsylvania State University

October 1992 - February 1993
Visiting Associate, CSIRO Divisions of Information Technology and Water Resources (Canberra, Australia)

July 1995 –present
Professor, The Pennsylvania State University

January 2000 - May 2000
Visiting Associate, International Institute for Geo-Information Science and Earth Observation (ITC), Department of Geo-information Processing (Enschede, Netherlands)

July 2007 – June 2008
Acting Director, GeoVISTA Center, Department of Geography, The Pennsylvania State University

January 2009-May 2009
Visiting Scholar, School of Geographical Sciences and Urban Planning, The Arizona State University
(Tempe, Arizona)
August 2009 – Present
Associate Director, GeoVISTA Center, Department of Geography, The Pennsylvania State
University
July 2010 – Present
E. Willard Miller Professor of Human Geography, The Pennsylvania State University

Recent Honors and Awards

Awarded Guggenheim Fellowship, July 2000 - July 2001. The fellowship project was entitled; “A Cognitive Approach to Representing Geographic Knowledge.”

Gave the 2003-2004 Arthur Robinson Colloquium, The Ohio State University. This is an annual three-day event focusing on spatial analytic methods, where a number of events are scheduled over the period in addition to the colloquium address focusing on the invitee’s research area.

Recipient of the College of Earth and Mineral Sciences Wilson Award for Excellence in Research, April 2008.

Named the E. Willard Miller Professor of Human Geography, July 2010.

Recipient of the AAG GIScience Specialty Group 2011 Robert T. Aangeenbrug Distinguished Career Award.

Invited Talks

Invited speaker, NATO Advanced Study Institute on Map Data Processing, Maratea, Italy, June 1979.

Invited lecture series, *Algorithms and Data Structures for Geographic Information Systems*, a week-long event under sponsorship of the United Nations at the Tata Institute for Advanced Research, Bombay, India, November 1985.

Invited speaker, International Workshop on Geographic Information Systems, Beijing, China, June 1987.

Invited speaker, Brazil Symposium on Geoprocessing, Sao Paulo, Brazil, 1990.

Invited speaker, Study Group on Regional and Global Economic Integration Development Planning, and Information Technology, held in conjunction with the United Nations Centre for Regional Development Twentieth Anniversary General Conference, Nagoya, Japan, 1991.

Invited talk, *New directions in Spatial Database Models*, The Australian Defence Force Academy, Canberra, Australia, January 1993.

Closing keynote address, Advanced Geographic Data Modelling Symposium, Delft, Holland, September 1994.

Invited speaker, *New Directions for Spatial Representation*, Conference on Women & Science: Celebrating Achievements, Charting Challenges, National Science Foundation, Washington D.C., December 1995.

Invited talk, *The Representation and Analysis of Space-Time Phenomena in Geographic Information Systems*, Population Research Institute, Penn State University, July 1996.

Invited talk, *Data Models for Large-Scale Geographic Information Systems*, Department of Computer Science and Engineering, Penn State University, September, 1996.

Invited presentation and demonstration, *The TEMPEST Temporal Geographic Information System*, Earth System Science Center, Penn State University, February 1997.

Invited member, closing panel of COSIT'97 (Conference on Spatial Information Theory), Hidden Valley, PA, October 1997.

Keynote address, *The Importance of Metadata*, The Spatial Data Standards Summit, sponsored by the Federal Geographic Data Committee and the Pennsylvania Mapping and Geographic Information Consortium (PaMagic), Penn State Conference Center, October, 1997.

Invited speaker, *Cognitive Models of Dynamic Phenomena and their Representations*, The Varenius Workshop on Cognitive Models of Dynamic Phenomena, Pittsburgh, October, 1998.

Invited talk, *A Conceptual Approach for Modeling Complex and Dynamic Phenomena in GIS*, Center for Mapping, Ohio State University, February 1999.

Invited speaker, *Time, GIS and Human Health; Representation of Space-time Dynamics*, Fourth Workshop on Health and Environment; Health Research Methods and Data, Turku, Finland, July 1999.

Keynote address, *Making Space for Time: Issues in Space-Time Data Representation*, Tenth International DEXA Conference and Workshop on Database and Expert Systems Applications, Florence, Italy, August 1999.

Invited talk, *Issues in Space-Time Data Representation*, Wageningen University, Centre for Geo-Information, Wageningen, The Netherlands, October 1999.

Invited talk, *Data Models for Space-Time Representation in GIS*, Institute for Geoinformatics, Westphalian-Wilhelms University, Münster, Germany, May 2000.

Invited talk, *Making Space for Time: Issues in Space-Time Data Representation*, Faculty of Geodetic Engineering, Delft University of Technology, Delft, The Netherlands, May 2000.

Invited talk, *Cognitive Models for Geographic Representation*, International Institute for Aerospace Survey and Earth Science (ITC), Enschede, The Netherlands, May 2000.

Invited speaker, *Time in GIS: an Overview*, Time in GIS: Issues in Spatio-Temporal Data Modeling, seminar sponsored by the Netherlands Geodetic Commission, Apeldoorn, The Netherlands, May 2000.

The following were given as a series of invited lectures at the Institute of Geodesy and Cartography, Helsinki University of Technology, Helsinki, Finland, during a week-long visit between Sept. 04 and Sept 08, 2000:

Issues in Space-Time Data Representation
The Pyramid Model: A Conceptual Framework for Representing Complex and Dynamic Phenomena in GIS
Creative Thinking & Knowledge Discovery Using Geographic Visualization

Invited talk, *Biding our time?* presented at the Workshop on Spatio-Temporal Data Models for Biogeophysical Fields, sponsored by NSF, San Diego, February 2002.

Invited member, *Computing skills needed by GIScience students in the coming years*, panel on UCGIS standard curricula for GIScience, AAG annual meeting, Los Angeles, March 2002.

Invited talk, *A New Approach for Analysis of Complex Space-Time Processes*, Department of Geography, The Arizona State University, April 2004

Invited talk, *Analysis of Complex Space-Time Processes: The Next-Generation GIS*, Department of Geography, The University of Maryland, April 2004.

Presentation of the annual Robinson Lecture - Invited talk, *A New Approach for Analysis of Complex Space-Time Processes*, Department of Geography, The Ohio State University, May 2004.

Invited talk, *Integrated Database and Visualization Environments for Space-Time Information Exploration*, Temple University, Department of Geography and Urban Studies, March 2005.

Keynote address, *Time for Change: An Integrated Environment for Representation and Analysis of Complex Space-Time Processes*, 15th Annual Fall Workshop on Computational Geometry and Visualization, Philadelphia, November 2005.

Invited talk, *Seeing Events in all their Complexity: Temporal GIS and the Representation of Space-Time Data*, The Computer: The Once and Future Medium for the Humanities and Social Sciences Symposium, 2006 Canadian Congress Social Sciences and Humanities, Toronto, May 2006

Invited talk, *Time, and Time Again*, Workshop on Computation and Visualization for the Understanding of Dynamics in Geospatial Domains, University Consortium for Geographic Information Science (UCGIS), Baltimore, MD, October 2006.

Invited talk, *Time for Change: Representation and Analysis of Space-Time Processes*, The Quantitative Social Science Initiative (QuASSI) Speaker Series, Dept. of Political Science, Penn State, November 2006.

Invited talk, *The Multi-Representation of Space-Time Data*, International Conference on Historical Maps and GIS, Nagoya, Japan, August 2007.

Keynote address, *The Multi-Representation of Space-Time Information: Toward Integrated Space-Time Analysis Environments*, International Conference on Virtual Geographic Environments, Hong Kong, January 2008.

Invited discussant, Organized session "Dynamic GIS" – commentary on four research papers presented at the session. Commentary was entitled: *Understanding Dynamics*, AAG Annual Meeting, Boston, MA, April 2008

Invited talk, *Tools for e-Thinking: Learning and Decision-Making in a Petabyte World*, Speaker Series, School of Geographical Sciences and Urban Planning, Arizona State University, February 2009.

Invited discussion panel member, session to honor Duane F. Marble, Association of American Geographers Annual Meeting, Seattle, WA, April, 2011.

Invited talk, *STempo: An Interactive Visualization and Statistical Environment for Discovery and Analysis of Space-Time Patterns*, National Geospatial Intelligence Agency Academic Research Program Symposium and Workshops, Washington, D.C., August 2011.

Professional Service

Professional Organizations

Association of American Geographers

- Treasurer, Special Interest group on Geographic Information Systems 1988-1989.
- Chair, Special Interest group on Geographic Information Systems 1991-1992 (Vice-Chair in 1990-1991)
- Member, 1993 National Nominating Committee

- Member, National Committee on Digital Data Formats and Standards, 1993- 1998
- Editorial Advisory Committee of *Resource Publications for College Geography*, 1987-1992 and 1995-2000
- Member, Program Committee for Annual Meeting, Philadelphia, March, 2004
- Member, Selection Committee, Garrison Award for Best Dissertation in Computational Geography, 2008 & 2010

University Consortium for Geographic Information and Analysis

- Lead Penn State voting representative, 1995-present (one of two PSU representatives)
- Member, Board of Directors, 1996-1998 and 2007-2008
- Member, Research Committee, 1996-1999
- Lead person on defining UCGIS Research Initiative on Extensions to Geographic Representation, 1996-1999
- Member, Education Committee, 1998-1999
- Member, Model Curricula Steering Committee, 1999-2004

American Cartographic Association

- Member, Board of Directors, 1994-1996

American Congress on Surveying and Mapping

- Vice Chair, Working Group on Data Organization of the National Committee for Digital Cartographic Data Standards, 1983-1985

Editorial Boards

Series editor, *Technical Issues in Geographic Information Systems*, Taylor & Francis, Ltd., 1990-1994.

Member, Editorial Board, *Geographer's Resource Publications in Geography Series*, Association of American Geographers, 1995-1997.

Member, Editorial Board, *International Journal of Geographical Information Science*, 1986 - present.

Member, Editorial Advisory Board, *ISPRS Journal of Photogrammetry and Remote Sensing*, Elsevier, 2000 - present.

International Activities

U.S. Member, Commission on Geographical Data Sensing and Processing, International Geographical Union, 1980-1985.

Co-organizer, United States/Australia Workshop on Design and Implementation of Computer-Based Geographic Information Systems, June 1982.

Program Chair, First International Symposium on Spatial Data Handling, Zurich, Switzerland 1984.

Executive Secretary, Commission on Geographical Data Sensing and Processing, International Geographical Union, 1985-1988.

Member, Program Committee, Seventh International Conference on Spatial Data Handling, International Geographical Union, Delft, The Netherlands, August, 1996.

Member, Program Committee, Eighth International Conference on Spatial Data Handling, International Geographical Union, Vancouver, July, 1998.

Member, Program Committee, International Conference on Spatial Information Theory (COSIT'99), Hamburg, Germany, August, 1999.

Member, Program Committee, Eleventh International Conference on Spatial Data Handling, International Geographical Union, Ottawa, July, 2002.

Member, Program Committee, Twelfth International Conference on Spatial Data Handling, International Geographical Union, Leicester, United Kingdom, August, 2004.

Member, Scientific Committee of the Twelfth International Symposium on Spatial Data Handling (SDH 06), International Geographical Union, Vienna, 2006.

Member, Program Committee, Fourth International Conference on Geographic Information Science (GIScience 2006), September, 2006

Chair, Working Group on Spatio-Temporal Modeling, International Society for Photogrammetry and Remote Sensing (ISPRS) Technical Commission II: Theory and Concepts of Spatio-Temporal Data Handling and Information, 2004-2006.

Member, Scientific Committee of the Thirteenth International Symposium on Spatial Data Handling (SDH 08), International Geographical Union, Montpellier, France, 2008.

U.S. Activities

Participant, invited forum to review the U.S. Global Change Data and Information Management Implementation Plan, National Academy of Sciences, September 1993.

Member, External Advisory Board, Breast Cancer Study, Epidemiology Program, Brookhaven National Laboratories, N.Y. 1995.

Director, Auto Carto 12 Conference, held in conjunction with American Congress on Surveying and Mapping/ American Society for Photogrammetry and Remote Sensing, Charlotte, North Carolina, 1995.

Member, NSF Site Review Panel for renewal of the National Center for Geographic Information and Analysis (NCGIA) at The University of California at Santa Barbara, April 1996.

Member, Advisory Panel on Computational Implementations of Geographic Concepts, NSF-sponsored project on Advancing Geographic Information Science (Varenus) to the National Center for Geographic Information and Analysis, 1997-1999.

Co-organizer (with Dr. Barry Smith, Philosophy, SUNY Buffalo) of an interdisciplinary workshop on The Ontology of Fields, sponsored by the National Consortium for Geographic Information and Analysis, Bar Harbor, June 1998.

Member, National Science Foundation review panel to evaluate Knowledge and Distributed Intelligence Center proposals, July 1998.

Invited participant at Workshop on Geographic Information Science and Geospatial Activities at the National Science Foundation, January, 1999. Purpose of this workshop was to critically examine the relationship of Geographic Information Science to existing programs and initiatives at NSF and to examine prospects for new NSF initiatives.

Reviewer for draft: *Navigating the Geospatial Future*, report by the Committee on Intersections between Geospatial Information and Information Technology, National Academy of Sciences, 2002.

Member, external review panel for evaluating the Geography program at the University of Maryland, College Park, 2004.

Invited participant at Workshop on Agent-Based Modeling of Complex Spatial Systems, jointly sponsored by NSF and the UK Economic and Social Research Council, Santa Barbara, April 2007.

Invited participant at Promoting Digital Scholarship: Formulating Research Challenges

In the Humanities, Social Sciences and Computation, a workshop Co-Sponsored with the National Endowment for the Humanities by the Council on Library and Information Resources, Washington, D.C., September 2008, and follow-on workshop in January 2010.

Consulting Activities

Altek Corporation
Environment Canada
National Capital Commission (Canada)

Professional Publications

Books and Monographs

Tomlinson, Roger, Duane Marble, Kurt Brassel, Donna Peuquet and Carl Reed. *Computer Software for Spatial Data Handling*, 756 pp. Ottawa: International Geographical Union, Commission on Geographical Data Sensing and Processing (1976).

Peuquet, Donna J. *Computer Software for Spatial Data Handling (2nd ed) Volume 2: Data Manipulation Programs*, 302 pp. Ottawa: International Geographical Union, Commission on Geographical Data Sensing and Processing (1980).

Peuquet, Donna J. and John O'Callaghan (eds). *The Design and Implementation of Computer-Based Geographic Information Systems*. Amherst, NY: International Geographical Union Commission on Spatial Data Sensing and Processing, 146 pp. (1982).

Peuquet, Donna J. and A. Raymond Boyle. *Raster Scanning Plotting and Processing of Cartographic Documents*, 122 pp. Williamsville, NY: SPAD Systems, Ltd. (1984).

Marble, Duane F., Hugh W. Calkins and Donna J. Peuquet (eds). *Basic Readings in Geographic Information Systems*. Williamsville, NY: SPAD Systems, Ltd, 232 pp. (1984).

Peuquet, Donna J. and Duane F. Marble (eds). *Introductory Readings in Geographic Information Systems*, London: Taylor & Francis, Ltd., 377pp. (1990).

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- Zi-Tan Chen and Donna J. Peuquet. "Quadtree Spatial Spectra Guide: A Fast Spatial Heuristic Search in a Large Geographic Information System," pp. 223-229 in *Proceedings*, American Society of Photogrammetry/American Congress on Surveying and Mapping National Spring Conference, Washington, DC (1985).
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- Peuquet, Donna J. *A Feasibility Assessment of the HSPF Catchment Modeling System for Integration into a Geographic Information Systems Environment*, 17pp. Report to Water Resources Division and Division of Information Technology, CSIRO, Canberra, 1993.
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- Peuquet, Donna J., B. Smith and B. Brogaard. *The Ontology of Fields*, Report of a specialist meeting held under the auspices of the Varenious Project, Panel on Implementations of Geographical Concepts, 1998.
- UCGIS Model Curricula Task Force (Peuquet, Donna J. with 12 others), *Development of Model*

Undergraduate Curricula for Geographic Information Science & Technology - The Strawman Report, 2003.

Peuquet, Donna J. and Alan MacEachren. *STNexus: An Integrated Database and Visualization Environment for Space-Time Information Exploitation*, Bimonthly reports to Advanced Research and Development Activity (ARDA), 14 reports – May 2005 thru August 2007.

Peuquet, Donna J. and Alan MacEachren, "STNexus: An Integrated Database and Visualization Environment for Space-Time Information Exploitation", final project report to ARDA/DTO (17 pp.), 2008.

Extramural Research Grants and Contracts

Source: U.S. Geological Survey
Amount: \$120,000
Dates: September 1975 to November 1976
Position: Co-Investigator
Title: Inventory of Computer Software for Spatial Data Handling

Source: National Science Foundation, Local Course Improvement Program (LOCI)
Amount: \$24,500
Dates: September 1977 to March 1978
Position: Co-Investigator
Title: Development of Interactive Computer Models to Assist Undergraduate Training in Geographic Information Systems, Location-Allocation Models and Computer Cartography

Source: National Science Foundation
Amount: \$36,911
Dates: June 1978 to October 1979
Position: Principal Investigator
Title: Development of a Raster-mode Geographic Information System

Source: U.S. Air Force and Defense Mapping Agency
Amount: \$80,000
Dates: October 1978 to September 1979
Position: Co-Principal Investigator
Title: Cartographic Data Structure Conversion Operations

Source: U.S. Forest Service
Amount: \$53,000
Dates: April 1979 to March 1981
Position: Co-Investigator
Title: Present and Future Needs for Spatial Data Handling within the U.S. Forest Service

Source: National Science Foundation
Amount: \$9,400
Dates: May 1982 to August 1982
Position: Principal Investigator
Title: U.S./Australia Workshop on the Design and Implementation of Computer-Based Geographic Information Systems

Source: U. S. Geological Survey
Amount: \$198,394
Dates: October 1982 to June 1986
Position: Co-Principal Investigator
Title: Design and Development of a Prototype Knowledge-Based Geographic Information System

Source: National Aeronautics and Space Administration
Amount: \$225,000
Dates: September 1983 to December 1985
Position: Co-Investigator
Title: Remote Sensing Information Sciences Research

Source: National Aeronautics and Space Administration
Amount: \$103,943
Dates: November 1983 to December 1985
Position: Principal Investigator
Title: New Data Structures and Efficient Search Methodologies for Very Large Spatial Databases

Source: Digital Equipment Corporation
Amount: \$87,000
Dates: March 1984 to March 1985
Position: Co-Principal Investigator
Title: Equipment Grant to Support Investigations on Knowledge-Based Engineering Approaches to Spatial Database Management

Source: National Science Foundation
Amount: \$75,000
Dates: March 1984 to August 1985
Position: Co-Principal Investigator
Title: Construction of a Prototype, Self-Modifying, Knowledge-Based Geographic Information System

Source: National Science Foundation
Amount: \$78,323
Dates: July 1984 to December 1987
Position: Principal Investigator
Title: The Design and Implementation of a Raster-Based Geographic Information System

Source: Digital Equipment Corporation
Amount: \$32,514
Dates: March 1986 to January 1987
Position: Principal Investigator
Title: Knowledge-Based Engineering for the Definition of Spatial Objects

Source: National Aeronautics and Space Administration
Amount: \$48,978
Dates: May 1986 to September 1988
Position: Principal Investigator
Title: Rapid Overlay of Multisource Spatial Data

Source: National Aeronautics and Space Administration
Amount: \$45,000
Dates: July 1986 to December 1988
Position: Principal Investigator
Title: Techniques for the Storage and use of Very Large, Heterogeneous Spatial Databases

Source: National Aeronautics and Space Administration
Amount: \$15,465,440
Dates: September 1989 to September 1999
Position: Co-Investigator
Title: Global Water Cycle: Extension Across the Earth Sciences (in collaboration with the Earth

System Science Center)

Source: National Aeronautics and Space Administration

Amount: \$12,980

Dates: September 1990 to July 1991

Position: Principal Investigator

Title: An Evaluation of NASA's Mater Directory/Catalogue Interoperability Project

Source: U.S. Forest Service

Amount: \$19,999

Dates: September 1991 to March 1992

Position: Principal Investigator

Title: Evaluation of Geographic Information Systems Technology for Use in Spatial and Temporal Analysis of Forest Ecosystems on Landscape Scales

Source: Environmental Protection Agency

Amount: \$55,000

Dates: November 1991 to December 1992

Position: Co-Investigator

Title: Mathematical Statistics and Stochastics for Data Interpretation and Improvement for Environmental Protection Research and Management (in collaboration with the Department of Statistics)

Source: U.S. Forest Service

Amount: \$100,000

Dates: February 1992 to December 1993

Position: Co-Principal Investigator (with Alan Taylor)

Title: Development of a Prototype Data Representation and Fire Frequency Models for Geographic Information Systems Decision Support.

Source: National Science Foundation

Amount: \$250,000

Dates: November 1991 to October 1997

Position: Principal Investigator

Title: Advanced Techniques for the Representation and Use of Geographic Information

Source: Environmental Protection Agency

Amount: \$585,086

Dates: October 1996 to October 2000

Position: Co-Principal Investigator (with Alan MacEachren)

Title: An Integrated Approach for Effective Representation and Analysis of Space/Time Environmental Data

Source: John Simon Guggenheim Memorial Foundation

Amount: \$36,000

Dates: July 2000 to July 2001

Position: Guggenheim Fellow

Title: A Cognitive Approach to Geographic Knowledge Representation

Source: Centers for Disease Control and Prevention

Amount: \$328,449

Dates: September 2002 to September 2005

Position: Co-Investigator

Title: Air Pollution and Cardiac Vulnerability to Acute Events

Source: University of North Carolina, Chapel Hill (Prime: National Institutes of Health)

Amount: \$772,386

Dates: September 2003 to May 2009

Position: Co-Investigator

Title: Environmental Epidemiology of Arrhythmogenesis in WHI (Women's Health Initiative)

Source: Advanced Research and Development Activity (ARDA), National Geospatial Intelligence Agency

Amount: \$806,457

Dates: June 2005 to October 2008

Position: Co-Principal Investigator

Title: STNexus: An Integrated Database and Visualization Environment for Space-Time Information Exploitation

Source: NGA University Research Initiatives (NURI), National Geospatial Intelligence Agency

Amount: \$276,606

Dates: September 1, 2010 to August 31, 2013

Position: Principal Investigator

Title: STempo: An Interactive Visualization and Statistical Environment For Discovery and Analysis of Space-Time Patterns

Teaching

Courses Taught

Geog 500 - Introduction to Geographic Research (co-taught with one other faculty member (Penn State University))

Geog 518 - Graduate Seminar in Representations of Spatiotemporal Knowledge (Penn State University)

Geog 581 & 481 - Geographic Information Systems Design and Evaluation graduate & undergraduate versions (Penn State University)

Geog 580 - Advanced Spatial Algorithms and Data Structures (Penn State University)

Geog 598A-D – (coordinator) Series of four one-credit courses – Perspectives on Physical Geography, Human Geography, Human-Environment Interactions and GIScience, respectively (Penn State University)

Geog 596 – Graduate Independent Study (Penn State University)

Geog 496 – Undergraduate Independent Study (Penn State University)

Geog 480 - Geographic Information Systems Algorithms and Data Structures (Penn State University)

Geog 463 – Geographic Information Management (Penn State University)

Geog 458 - Digital Elevation Models (Penn State University)

Geog 457 - Geographic Data Systems (Penn State University)

Geog 363 – Geographic Information Systems (Penn State University)

Geog 357 - Introduction to Geographic Information Systems (Penn State University)

Geog 356 - Computing for the Earth and Mineral Sciences (Penn State University)

Geog 160 – Mapping our Changing World, web version (Penn State University)

Geog 121 - Mapping our Changing World (Penn State University)

E&MS 101S – Earth & Mineral Sciences Freshman Seminar: Exploring Real and Virtual Worlds

Geog 455 - Graduate Seminar in Geographic Information Systems (University of California at Santa Barbara)

Quantitative Methods I (State University of New York at Buffalo)

Introductory Computer Graphics (State University of New York at Buffalo)

Various short courses on geographic information systems and spatial data handling.

Graduate Student Supervision (and dates of degree completed)

Sangshal Kwon, M.S. (1987)

John Kelmelis, Ph.D. (1991)

Elizabeth Wentz, Ph.D. (1997)

Ryan Baxter, M.S. (2000)

Liu Jian Qian, Ph.D. (2000)

Jeremy Mennis, Ph.D. (2001)

Diansheng Guo, Ph.D. (2003)

Chaoqing Yu, Ph.D. (2005)

Lee Ann Nolan, M.S.

Jianwei Dou, Ph.D.

Ritesh Agrawal, Ph.D. (2010)

Kean Huat-Soon, Ph.D.

Maureen O'Marra, MGIS (2011)

Qian Di, M.S.

Samuel Stehle, M.S.

Post-docs (supervision shared with Alan MacEachren)

Monica Wachowicz

Christopher Weaver

University Service

Participation in Governance Bodies

University Faculty Senate Committee on Computer and Information Systems, 1986 to 1990.

EMS College Faculty Steering Committee, 1987-1989.

External Member, College of Agriculture Artificial Intelligence Laboratory Executive Committee, 1989-1992.

University Advanced Geographic Information Systems Laboratory, Executive Committee, 1990-1993.

University Faculty Senate Committee on Admissions, Scheduling and Student Aid, 1990-1992.

University Senate, 1990-1992.

Committee Memberships

University Search Committee for Head of the Center for Academic Computing, 1988 and 1994.

Member, President's Budget and Planning Advisory Committee, 1991-1992 and 1993-1994.

Member of an unofficial working group (which also included representatives from the CAC and the Libraries) which successfully landed a University-wide site license for Arc/Info, and established the internal infrastructure for its distribution and administration. This was a five-year effort, including establishment of a University GIS User's group with membership from all University Park departments using GIS, 1991-1996.

Member, University Cyberscience Task Force, 2010 – 2011

Member, University Graduate Council Committee on Fellowships and Awards, 2010-2011 & 2011-2012.

Member, EMS College Search Committee for Associate Dean for Research, College of Earth and Mineral Sciences, 1986.

Member, College of E&MS Research Advisory Committee, 1988-1990.

Member, College of E&MS Environment Committee, 1995-1998.

Member, College of E&MS 5-Year Faculty Performance Review Committee, Spring 2000.

Member, College of E&MS Promotion and Tenure Committee, Fall 2009 – present.

Member, College of E&MS Fixed-Term and Research Promotion Committee, Fall 2010 – present.

Faculty Advisory Committee for the John A. Dutton E-education Institute MGIS program, 2003 – 2004.

Member, College of E&MS Academic Integrity Committee, August 2006-July 2008

Chair, PSIEE Spatial Sciences Committee, Spring, 2010.

Chair, Departmental Space Committee, 1986-1987.

Member, Geography Department Miller Award Committee, 1986-1987, 1987-1988, 1997-1998, 2002-2003 and 2007-2008.

Chair, Geography Department Miller Award Committee 2001-2002.

Member, Search Committee for Geography Department Head, 1989 and 1994.

Member, Geography Department Graduate Admissions Committee, 1993-1994, 1996-1997, 1998-1999, 2002-2003, 2004-2005, 2006-2007, and 2010-2011.

Chair, Geography Department Graduate Admissions Committee 2003-2004.

Member, Geography Department Committee on Computing Resources, 1994.

Member, Geography Department Search Committee for computer staff support position, 1995.

Member, Geography Department Faculty Search Committee, 1995-96, 1997-1998, 2005

Chair, Geography Department Awards Committee, 1997-1998 and 1998-1999.

Organizer, Geography Department Coffee Hour Series, Spring 2003, Fall 2005.

Member, Geography Department Undergraduate Curriculum Committee and Chair of GIScience Option Committee, 2002-2006.

Member, Geography Department Graduate Curriculum Committee, 2004-2006.

Member, Geography Department Promotion and Tenure Committee, 2005-2006 and Acting Chair, February-May, 2005.

Member, Geography Department Faculty Advisory Committee, 2005-2008 and 2009-present.

Chair, Geography Department Faculty Advisory Committee, 2006-2007 and 2011-2012.

Chair, Geography Department Search Committee for senior GIScience faculty position, October 2007-June 2008

Member, Geography Department Undergraduate Curriculum Committee, 2011-2012.

Member, Geography Department Miller Speaker Series Committee, 2011-2012

Member, Geography Department ad-hoc Future Directions Committee, summer 2011-present

Other Administrative Support

Faculty advisor for the Geography Department undergraduate majors club, 1986-1990.

Operational responsibility for Department (non-Cartography) teaching and research computer laboratories, 1986-1993.

Director, University Advanced Geographic Information Systems Laboratory, 1993-1996 (Co-Director 1990-1993).

Member, Internal Advisory Board, NASA Space Grant Program at Penn State, and Manager of the Undergraduate Scholars component of that program, 1989-1992.

Acting Director, GeoVISTA Center, 2007-2008.

Associate Director, GeoVISTA Center (Fall 2009 – present)

Community Service

Geographic Information Systems Consultant, Centre Regional Planning Commission, 1986-1987 & 2002.

Geographic Information Systems Consultant, Centre County Conservation District, 1987.

Geographic Information Systems Consultant, Centre County Planning Department, 1988.

Geographic Information Systems Consultant, Pennsylvania Department of Environmental Resources, 1991.

Review Procedures

Procedures for an Academic Program Review of the UCSB-SDSU Joint Doctoral Program in Geography March 2011

PURPOSE AND SCOPE

The following procedures provide a structure and assignment of responsibilities for an academic program review of the UCSB-SDSU Joint Doctoral (Ph.D.) Program in Geography.¹ The review will be conducted jointly by the University of California, Santa Barbara and San Diego State University.

The purpose of a program review is to assess and improve program quality. The review of the Joint Doctoral Program (JDP) will afford both institutions' faculties the opportunity for in-depth evaluation of the program and the degree to which its original purpose continues to be served within the context of each institution. The review of the JDP will provide the Graduate Councils on each campus information to inform their decisions with respect to program renewal. The administrations of both institutions may use the results for institutional planning and resource allocation.

The review period is from academic year 2002-03 through academic year 2010-11.

AUTHORITY AND COORDINATION

The Executive Vice Chancellor at UCSB and the Vice President for Research and Dean of Graduate Affairs at SDSU have initiated this review. They will appoint a joint review committee of UCSB and SDSU faculty members to conduct the review called the UCSB-SDSU Ad Hoc Review Committee for the Joint Doctoral Program in Geography. The composition and responsibilities of this committee and the roles of academic administrators and Academic Senate committees are described later in this document. See Appendix 1: Composition and Responsibilities of UCSB-SDSU Ad Hoc Review Committee for the Joint Doctoral Program in Geography, and Appendix 6: Program Review Participants. The UCSB Graduate Council and the SDSU Senate have the authority to recommend continuation of the JDP for up to seven years or its termination.

REVIEW PROCESS AND SEQUENCE OF ACTIONS

Following are the steps required to carry out a program review of the Joint Doctoral Program in Geography. Appendices define the roles of participants and specify the procedures and practices that should be followed at various steps in the review. These procedures also provide an approved template that may be used to conduct program reviews of other JDPs at UCSB.

¹ These procedures are consistent in principle with those used in regular program reviews of UCSB doctoral programs and were drafted by the UCSB Program Review Panel and the SDSU Office of Graduate and Research Affairs. They have been approved by the UCSB Executive Vice Chancellor and the SDSU Graduate Dean, following appropriate consultation on each campus.

1. UCSB Executive Vice Chancellor (EVC) and the SDSU Vice President for Research and Dean of Graduate Affairs jointly initiate the program review, notifying their respective Geography departments to begin preparations and providing them with these procedures.
2. UCSB EVC and the SDSU Vice President for Research and Dean of Graduate Affairs each appoints two members from their respective campuses to serve on the UCSB-SDSU Ad Hoc Review Committee for the Joint Doctoral Program in Geography. *See Appendix 1: Composition and Responsibilities of UCSB-SDSU Ad Hoc Review Committee for the Joint Doctoral Program in Geography.*
3. SDSU and UCSB Geography departments together propose to the UCSB EVC and the SDSU Vice President for Research and Dean of Graduate Affairs five scholars to nominate potential reviewers. On behalf of both institutions, UCSB EVC contacts the nominators requesting nominations. *See Appendix 2: Selection of the External Review Committee.*
4. Ad Hoc Review Committee sends list of ERC nominees to departments for comment and, based on their comments and the committee's own evaluation of the candidates, recommends a review committee to the UCSB EVC and the SDSU Vice President for Research and Dean of Graduate Affairs. Following approval, and on behalf of both institutions, UCSB EVC invites reviewers to serve on ERC. *See Appendix 2: Selection of the External Review Committee.*
5. Ad Hoc Review Committee notifies departments of confirmed ERC and, in consultation with SDSU and UCSB, establishes dates for the campus visits.
6. Institutional research offices at UCSB and SDSU provide program data to both departments and, in consultation with the departments, conduct a student survey. SDSU and UCSB departments compile departmental data. Deadline for completion will be set by the Ad Hoc Review Committee. *See Appendix 3: Program Review Data Notebook.*
7. SDSU and UCSB departments analyze the data provided to them and jointly prepare a program self-assessment in response to questions contained in these procedures. Each department's faculty will vote to approve the document, which should be submitted to the UCSB-SDSU Ad Hoc Review Committee with the results of departmental votes by the deadline established by the Committee. *See Appendix 4: Program Self-Assessment.*
8. Ad Hoc Review Committee reviews the completed self-assessment and data to ensure that materials are clear and complete. Designated program review staff will compile these materials into a data notebook that will serve as the foundation document for the program review.
9. Ad Hoc Review Committee prepares charge to the External Review Committee based on its study of the program review notebook and consultation with department chairs and deans. *See Appendix 5: Charge to the External Review Committee.*
10. Ad Hoc Review Committee sends copies of the data notebook and charge to members of the ERC and to participating academic administrators and Academic Senate committees on each campus. *See Appendix 6: Program Review Participants.*

11. Ad Hoc Review Committee confers with both Geography departments to plan the ERC visit schedule. *See Appendix 7: ERC Campus Visits.*
12. UCSB Executive Vice Chancellor and SDSU Vice President for Research and Dean of Graduate Affairs host ERC visits to their respective campuses. *See Appendix 7: ERC Campus Visits, and Appendix 8: Responsibilities of External Review Committee.*
13. Within two weeks of the visit, the ERC submits a written report on the program that is responsive to each question in the charge. *See Appendix 8: Responsibilities of External Review Committee.*
14. Ad Hoc Review Committee sends the report to both Geography departments, requesting a joint response within four weeks. The purpose of the response is to correct factual errors, identify points of agreement with the ERC, discuss points of disagreement, and explain how the departments plan to move forward on the report's recommendations. Where the departments have differing points of view, the response should incorporate both.
15. Ad Hoc Review Committee sends the ERC report and departments' response to the participating academic administrators and Academic Senate committees on each campus, requesting their comments. *See Appendix 6: Program Review Participants.*
16. Ad Hoc Review Committee studies the ERC report, departmental response(s), and all comments from participating academic administrators and Academic Senate committees, and within four weeks prepares a report with recommendations to the Executive Vice Chancellor at UCSB and the SDSU Vice President for Research and Dean of Graduate Affairs. The report provides an independent critical analysis of the information gathered in the review process and recommends steps to address weaknesses and improve the program. The report is copied to the departments, participating administrators, and Academic Senate committees. *See Appendix 6: Program Review Participants.*
17. Upon receipt of its copy of the Ad Hoc Review Committee report, the Graduate Council at each institution makes a recommendation with respect to program renewal and informs its respective academic officer (Executive Vice Chancellor at UCSB and the SDSU Vice President for Research and Dean of Graduate Affairs).
18. UCSB EVC and the SDSU Vice President for Research and Dean of Graduate Affairs prepare a joint concluding memorandum to the departments that provides the perspectives of both institutions on the future of the JDP and identifies required departmental actions and a schedule for departmental follow-up reports.

APPENDICES

Appendix 1: Composition and Responsibilities of UCSB-SDSU Ad Hoc Review Committee for the Joint Doctoral Program in Geography

Composition

The committee will consist of four faculty members outside of the UCSB and SDSU Departments of Geography. The UCSB Executive Vice Chancellor and the SDSU Vice President for Research and Dean of Graduate Affairs will each appoint two members, designating one member from each campus as co-chair.

UCSB's members will consist of: two UCSB faculty members, at least one of whom is from a cognate department. Ideally one or both members will have served on the campus' Program Review Panel (PRP). One will be a current member of the Graduate Council. Members will be appointed in consultation with the Academic Senate.

SDSU's members will consist of two SDSU faculty members, at least one of whom is from a cognate department and at least one of whom is from another joint doctoral program. Members will be appointed in consultation with the Graduate Council.

Responsibilities

The responsibilities of the Ad Hoc Review Committee are to:

- recommend an External Review Committee and alternates to the UCSB EVC and the SDSU Vice President for Research and Dean of Graduate Affairs for approval following the procedures provided in this document
- select a chair of the External Review Committee
- prepare a charge to the External Review Committee
- approve, as sufficient for the review, the doctoral program's self-assessment
- schedule the External Review Committee visit, in consultation with both campuses
- coordinate the External Review Committee's visit to each campus
- receive the External Review Committee report; coordinate the faculties' response(s) to the report; and coordinate responses by Academic Senate committees and academic administrators at both institutions to the ERC report and departmental response
- prepare an independent review report that critically analyzes and evaluates the information gathered in the review process and recommends steps to address weaknesses and improve the program

Appendix 2: Selection of the External Review Committee

The SDSU and UCSB Departments of Geography will jointly propose five distinguished scholars, who are not members of and have no significant connections to the two departments, to serve as nominators of external reviewers. The UCSB EVC will ask each nominator to recommend three to five potential external reviewers from distinguished doctoral programs in the field. Review staff will compile a list of proposed reviewers. The Ad Hoc Review Committee will ask each department to comment on the

nominees' qualifications and suitability, and to disclose any connections between department faculty members and proposed reviewers. Following this consultation, the Ad Hoc Review Committee will recommend a three-person External Review Committee and alternates for approval by the UCSB EVC and the SDSU Vice President for Research and Dean of Graduate Affairs. On behalf of both institutions, the UCSB EVC will invite reviewers to serve on the committee.

Appendix 3: Program Review Data Notebook

A data notebook will be compiled to provide a source of factual and analytical information for the program review. The notebook will include a self-study prepared by the faculty (described in Appendix 4), and the elements listed below to the degree they are available. UCSB and SDSU Institutional Research and departmental staff will confer to determine the feasibility of obtaining the requested data and to suggest any other useful indicators. The final content and organization of the notebook will be determined by the Ad Hoc Review Committee in consultation with program review and Institutional Research staff.

Proposed data tables

Student data

1. Number of applicants, number and percent of admits, and number and percent of enrollees for each year of the review period between 2002-2003 and 2010-2011.
2. Headcount by year
3. Graduate student gender, ethnicity, and domestic v. international status by year
4. Baccalaureate institutions of enrolled graduate students by entering cohort
5. Academic record of entering students (average GPA, GRE scores) by year
6. Graduate student support provided by each institution
7. Median time to candidacy and median time to degree
8. Eight-year graduation rates by year
9. Titles of dissertations and committee chairs
10. Number of PhDs conferred by year
11. Placement of each student immediately after PhD by year
12. Faculty member participation on graduate committees

Program data

13. Description of program curriculum and requirements
14. List and description of required courses
15. List of extramural funding providing direct support or research opportunities to students in the program
16. Graduate student handbooks from each institution
17. UCSB and SDSU Geography Department Faculty CVs or short biographies

Student opinion

18. Survey of graduate student satisfaction on multiple measures (instruction, mentoring, support, communication, climate, etc.) adapted from UCSB Program Review Panel survey

Appendix 4: Program Self-Assessment

The program self-assessment should be prepared jointly by UCSB and SDSU Geography Department faculties. Making use of the data compiled for the review, the faculty should critically assess the program, responding to the questions listed below. Where there are differing perspectives on a particular issue, they should be expressed and generally attributed (to one department or the other or to a subset of faculty within a department). In general, the documents should not name individual faculty except where doing so is necessary to explain the availability of specializations or FTE. *The self-assessment should not exceed 10 pages.*

A. Introduction

In one paragraph, please discuss how the self-assessment was prepared and what opportunities for review and comment were provided to each department's faculty. Please provide the date and results of each department's vote to approve the document (include total number of faculty in department and number faculty voting in favor, against, abstaining).

B. History

Please provide a brief history of the Joint Doctoral Program (JDP). When and why was the program established? Describe any aspects of its early history that are relevant to the current review.

C. Current Context and Mission

Please briefly describe the missions and scholarly profiles of the UCSB and the SDSU Geography departments. How does the JDP serve the mission of each department?

D. Institutional Contributions

What resources – financial, material, staff, and faculty -- does each institution contribute to the program? Are they adequate?

E. Current Program

- a. Briefly discuss current trends in the discipline and how they are reflected in the JDP.
- b. What are the goals of the JDP? Please describe and assess the JDP's curricular content, structure, and requirements. What steps are the faculty taking, or considering taking, to improve them?
- c. Please discuss the JDP's success in attracting and enrolling graduate students. Please characterize the applicant pool in terms of quality, size, and diversity. What role does each department's faculty play in recruiting and admitting students? How is the program publicized? What procedures and criteria are used to select the students for admission?

- d. How is the quality of student performance assessed at various stages of students' graduate careers? Are graduate students assessed early enough to identify those who lack the appropriate preparation and motivation? How does the program deal with low performing students? What proportion of students fall into this category?
- e. Please comment on the attrition/success rate (in terms of advancement to candidacy and graduation) for the program. What factors contribute to the attrition/success rate? Are there differences in rates related to gender and ethnicity?
- f. Evaluate the adequacy of financial support for graduate students. What percentage of students are funded, and how competitive are financial offers with offers from other institutions? How are financial aid and fellowship decisions reached?
- g. Please describe and assess academic advising. How are program requirements communicated to incoming students? How is student progress in the program monitored and assessed? What assistance does the program regularly provide to students (e.g., tutorial help, study space, specialized libraries)?
- h. Please discuss average time to degree. How does it compare with averages for the Geography PhD program at UCSB or in other major institutions of higher education? How does the program ensure that students complete their degrees in a timely and orderly manner?
- i. What assistance is available in career planning and job placement? Please discuss the placement data compiled for the review and evaluate the program's placement record over the last six years.
- j. Describe the climate for graduate study in the program (a) in general, (b) for women, and (c) for historically underrepresented students. If there are problems, how are they being addressed? Please discuss the results of the graduate student survey.
- k. Describe the participation of graduate students in the governance of either department.
- l. Please discuss the level of UCSB and SDSU faculty engagement in the JDP program. Is there sufficient faculty support for the program to provide students with excellent preparation and experience in a community of scholars?

F. Direction of Program

This section of the self-assessment should discuss the future of the program and the changes the faculty wish to make to the JDP, including at a minimum any areas identified in the self-assessment as needing attention. Please specify whether the faculty anticipate changes in recruiting and admissions, curriculum, requirements, advising, and ways of providing continuity in mentoring for students as they move from one campus to the other. Please also discuss the financial and faculty resources required to achieve and sustain excellence in the program over the next five to eight years. The Ad Hoc Review Committee may add specific questions it wishes the departments to answer.

Appendix 5: Charge to the External Review Committee

Following study of the program review data notebook, consultation with the department chairs, and at the discretion of the committee, consultation with deans and Academic Senate committees, the Ad Hoc Review Committee will prepare a charge to the External Review Committee. The charge should include the criteria for review of doctoral programs contained in UCSB's Academic Program Review Procedures. The charge should also ask the ERC to evaluate a) the extent to which the JDP meets educational needs not being met by existing programs, b) whether the JDP provides significant academic benefit to both UCSB and SDSU, c) whether the JDP has the academic excellence expected of UCSB doctoral programs, and d) whether both SDSU and UCSB faculty members play active roles in admissions, advising, and instruction.

Appendix 6: Program Review Participants

In addition to the Ad Hoc Review Committee, the External Review Committee, and the two departments, the following academic administrators and Academic Senate committees will participate in the program review.

At UCSB: Executive Vice Chancellor; Dean of Mathematical, Life, and Physical Sciences; Graduate Dean; Graduate Council, Council on Planning and Budget, and College of Letters and Science Executive Committee. The Executive Vice Chancellor will receive a data notebook and a copy of the charge, host the review committee at UCSB, receive the Ad Hoc Committee's report, issue jointly with the SDSU Vice President for Research and Dean of Graduate Affairs a concluding memorandum, and provide administrative follow up. Other UCSB administrators and Academic Senate committees listed will receive the data notebook and a copy of the charge letter, and review and comment on the ERC report and departmental response.

At SDSU: Provost, Vice President for Research and Dean of Graduate Affairs, Associate Vice President for Academic Affairs, Dean of College of Arts and Letters, and Associate Dean of Graduate Affairs. Vice President for Research and Dean of Graduate Affairs will receive a data notebook and a copy of the charge, host the review committee at SDSU, receive the Ad Hoc Committee's report, issue jointly with the UCSB Executive Vice Chancellor a concluding memorandum, and provide administrative follow up. Other SDSU administrators will receive the data notebook and a copy of the charge letter, and review and comment on the ERC report and departmental response.

Appendix 7: ERC Campus Visits

External Review Committee members should visit each campus for one day to meet privately with faculty, students, and staff associated with the JDP and the two departments generally. The committee should also have an opportunity to interview appropriate academic administrators, as determined by each campus. Ideally, the two campus visits will be close together in time. The Ad Hoc Review Committee will coordinate the visit schedule. The co-chairs of the committee may participate in administrative meetings during both visits.

Appendix 8: Responsibilities of External Review Committee

The External Review Committee is expected to conduct an impartial, rigorous peer review of the JDP, based on the program review data notebook and interviews with faculty, students, staff, and administrators. The committee's report should compare the program to the best doctoral programs in the field and address each of the criteria suggested in the charge to the committee, identifying the programs' strengths, weaknesses, and opportunities for improvement. The report should be submitted to the Ad Hoc Review Committee within two weeks of the second campus visit.

Appendix 9: Ideal Timeline (may be adjusted by Ad Hoc Review Committee)

February 2011

- Approval of draft procedures by each campus

February-March 2011

- Notify departments to begin preparing for the review
- Identify and contact ERC nominators
- Appoint Ad Hoc Review Committee and co-chairs
- Identify data elements for the program review notebook

April, May, June 2011

- Department faculties begin reflection and self-study
- Institutional Research (IR) staff administer enrolled student survey at the end of April
- UCSB and SDSU IR departments and Geography departmental staff provide institutional data to departments by June 1
- Review staff confirm ERC, schedule review

Summer 2011

- Departments begin drafting self-assessment
- Enrolled student survey results provided to departments by July 1
- Administer alumni survey (if there is one) and provide results to departments by August 1

Fall 2011

- Department faculties vote on self-assessment and submit it to Ad Hoc Review Committee by October 7
- Program Review notebook completed and sent to ERC
- Ad Hoc Review Committee prepares charge to ERC

Winter 2012

- Campuses host ERC visit (January, if possible)
- ERC submits report
- Departments respond to ERC report

Spring 2012

- Administrators and Academic Senate committees comment on ERC report
- UCSB Graduate Council and SDSU Senate recommend program renewal or not
- Ad Hoc Committee prepares review report

Summer 2012

- Executive Vice Chancellor at UCSB and the SDSU Vice President for Research and Dean of Graduate Affairs complete concluding memorandum to departments