



INSTITUTE OF BEHAVIORAL SCIENCE ■

UNIVERSITY OF COLORADO

AT BOULDER ■ FEBRUARY/MARCH 2008 ■

NEWSLETTER

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PROGRAM ACTIVITIES

IBS DISTINGUISHED LECTURE SERIES

The Health and Society Program along with the Population Program will be hosting our 2008 Distinguished Lecture on Monday, March 31. The speaker will be Dr. Lisa Berkman, Thomas D. Cabot Professor of Public Policy and of Epidemiology, Chair of the Department of Society, Human Development, and Health at the Harvard School of Public Health, and Director of the Center for Population and Development Studies at Harvard University. She will be lecturing on the topic of "Social Determinants of Population Health: Understanding Social Disparities Within and Across Countries" at the Old Main Chapel from 4:00 p.m. to 5:30 p.m. Please join us in welcoming Dr. Berkman and in helping make the 2008 Distinguished Lecture a success.

ENVIRONMENT AND SOCIETY PROGRAM

Chuck Howe's election as a Fellow of the Association of Environmental and Resource Economists (AERE) was announced at their annual meeting in January. AERE is the leading professional organization of economists in the sub-field of natural resource and environmental economics. He was commended for his pioneering work in the economic analysis of water development and management, both in the United States and in developing countries. His books on natural resource economics and benefit-cost analysis were long-regarded as the standard graduate texts in those fields. Howe directed the Water Resources Program at Resources for the Future in the 1960's prior to coming to the Economics Department at UCB where he initiated new courses in the natural resources/environment area. He was the director of the Environment and Behavior Program at IBS from 1986 through 1997. He is a Fellow of the American Geophysical Union and holds the Icko Iben Award of the American Water Resources Association and the Warren Hall medal of the Universities Council on Water Resources.

Lori Hunter is the new Editor-in-Chief of the academic journal *Population and Environment*, published by Springer Netherlands. The journal

"publishes articles, commentary and reviews related to the bi-directional links between population, natural resources, and the natural environment, with the purpose of deepening scientific and policy dialogue in this often complex area. The coverage is multidisciplinary, spanning a range of social, policy, life, and natural sciences. Work at all scales, local to global, is presented as are both theoretical and empirical contributions. *Population and Environment* reaches a wide readership of researchers working in academic and policy institutions in the fields of demography, economics, sociology, geography, environmental studies, public health, ecology and associated sub-disciplines."

PROGRAM ACTIVITIES

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In Print

De Sherbinin, Alex, Leah VanWey, Kendra McSweeney, Rimjhim Aggarwal, Alisson Barbieri, Sabine Henry, **Lori M. Hunter**, Wayne Twine, Robert Walker. "Rural Household Micro-Demographics, Livelihoods and the Environment." *Global Environmental Change* 18 (2008): 38-53. The authors review and synthesize findings from scholarly work on linkages among rural household demographics, livelihoods and the environment. Using the livelihood approach as an organizing framework, they examine evidence on the multiple pathways linking environmental variables and the following demographic variables: fertility, migration, morbidity and mortality, and lifecycles. Although the review draws on studies from the entire developing world, they find the majority of microlevel studies have been conducted in either marginal (mountainous or arid) or frontier environments, especially Amazonia. Though the linkages are mediated by many complex and often context-specific factors, there is strong evidence that dependence on natural resources intensifies when households lose human and social capital through adult morbidity and mortality, and qualified evidence for the influence of environmental factors on household decision-making regarding fertility and migration. Two decades of research on lifecycles and land cover change at the farm level have yielded a number of insights about how households make use of different land-use and natural resource management strategies at different stages. A thread running throughout the review is the importance of managing risk through livelihood diversification and ensuring future income security, while being attentive to culture-specific norms regarding appropriate, desirable, and necessary activities. Recommendations for future research are provided.

Farhar, Barbara. "Advancing a Market for Zero-Energy Homes." *Solar Today* 22, no. 1 (2008): 24-29. A comparative study reveals that with supportive policies, high-performance homes can be cost-competitive with other houses. Are zero-carbon homes ahead?

Farhar, Barbara, and Timothy Coburn. "A New Market Paradigm for Zero-Energy Homes: A Comparative Case Study," *Environment: Science and Policy for Sustainable Development*, 50 (2008): 18-32. The authors studied the first development of 306 high-performance homes by a production builder in the United States from 2001-2006 using a diffusion-of-innovations perspective. These homes were highly energy-efficient and came with solar water heaters standard. One-third came with 1.2 photovoltaic (PV) systems standard and buyers could opt for 1.2 or 2.4 PV systems in the remaining PV-eligible homes. The study focused on the builder experience, market response to high-performance homes, increases in home values over time, and the consumption and cost of electricity and gas in the high-performance and adjacent comparison homes. The comparison community of 103 homes was built by a different builder but was of similar vintage, size, and price. Although built to Title 24 standards then in effect, the comparison homes were offered with no special energy or solar features standard. The study addresses the home sales prices, resale prices, the uptake of optional PV systems, the demographics and other characteristics of the home buyers, the role of energy in home purchase decisions, satisfaction, policy preferences, and utility consumption and costs in these homes based on data provided by San Diego Gas & Electric Company. A new way of thinking about offering new Zero-Energy Homes is discussed.

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IN FOCUS

Addressing the Complex Psychosocial Needs of Vulnerable Community Groups



RoseMarie Perez Foster
IBS Senior Research Associate
Environment and Society Program

In the case of nuclear accidents in particular, the unique context of toxic disasters that cannot be “sensorially perceived” is of particular interest, as evidence indicates that cognitive factors such as the perception of radiation risk may play a strong intervening role in long-term psychological effects.

RoseMarie Perez Foster was recently appointed to IBS as a Senior Research Associate in the Environment and Society Program and Natural Hazards Center. She joined IBS as a Visiting Scholar in 2007 upon her move to Boulder from New York City. She is a research and clinical psychologist who, as an Associate Professor at the New York University School of Social Work, chaired the Human Behavior area (2000-2004) and directed The Glass Center for Mental Health Research from 1999-2006. She was also a Scientific Investigator on the faculty of the Department of Psychiatry, NYU School of Medicine.

My research and academic interests have always focused on the psychosocial contexts of multiply burdened populations – whether these contexts are the grinding poverty that accompanies new immigrant or homeless status, or whether these contexts emerge from acute disaster events that devastate communities and their families in the long-term. My initial foci moved across an investigative spectrum that explored the unique cultural idioms of human distress, as well as examined the Western canon of developmental and clinical theory that both succeeds and falters in educating, clinically treating, and developing social services for the ever-changing spectrum of new immigrant groups in the United States. Several decades of community service as a practitioner and trainer on the front lines of New York City’s most disenfranchised neighborhoods exposed me to well-intentioned but failing systems that were patently underserving vulnerable communities and unable to provide culturally syntonic services to populations whose life experiences markedly differed from more service-savvy educated North Americans. Around 1995, I became aware that training culturally competent health service providers and publishing guidelines for the careful clinical assessment of immigrant groups (*The Power of Language in the Clinical Process: Assessing and Treating the Bilingual Person*), was simply not going to be sufficient in expanding the knowledge base on the complex psychosocial needs of vulnerable community groups. I thus entered academia and embarked on a careful agenda of empirical research.

As a Scientific Investigator in the department of Psychiatry, NYU School of Medicine, I investigated clinical approaches for treating depression in refugee women and also assessed the influence of pre-migration traumatic exposure to host country adjustment. The momentum for these activities was further enhanced by my directorship of the Glass Center for Mental Health Research at the NYU School of Social Work, which financially supported initial phases of doctoral candidate and faculty research on vulnerable populations. I had the honor of mentoring such activities as the study of Liberian child soldiers relocated to the United States (M. Jarbo), the evaluation of affective disorders in women who are homeless in New York City (R. Jackson), and the study of medical service use by Russian and Ukrainian émigrés to the United States (A. Risman). In an agenda that would ultimately bring me to the Natural

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Hazards Center at IBS, I began to investigate long-term mental health sequelae in immigrants from the former Soviet Union who had been exposed to the Chernobyl nuclear disaster. Pursuing the only research agenda to follow Chernobyl disaster survivors relocated to the United States, I was studying an immigrant group which, aside from grappling with the traditional socio-economic stressors common to all immigrant newcomers, was also coping with the long-term threat of disease and somatic preoccupation so common to radiologically exposed communities. I found that post traumatic symptoms related to the nuclear accident, anxiety, and dread of illness, were common to those who had lived close to the Chernobyl epicenter, albeit having relocated to presumably less polluted environs in the United States. My current aim is to pursue the long-term mental health effects of this community. I aim to do so through understanding how the complex interaction of migration, pre-migration nuclear accident exposure and demographic factors contribute to the variance in current psychosocial functioning.

My stay at the Natural Hazards Center has been an invaluable education on the influence of toxic hazards on communities. As the Center's staff has begun to train me on the "front end" of disaster risk communication and mitigation, I have been able to offer perspectives on how disasters reverberate long-term in the lives of its survivors. In the case of nuclear accidents in particular, the unique context of toxic disasters that cannot be "sensorially perceived" is of particular interest, as evidence indicates that cognitive factors such as the perception of radiation risk may play a strong intervening role in long-term psychological effects. A pointed question in my research trajectory is to understand the relationship between physical radiation exposure and perceived exposure – a query that I have just proposed to the National Science Foundation for investigative support.

As the portent for nuclear accidents increases in the international arena, might the Chernobyl population not pose a prime example of a vulnerable community burdened by a potentially annihilating disaster?

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Working Papers

<http://www.colorado.edu/ibs/es/pubs/wp.html>

Alston, Lee, Shannan Mattiace, and Tomas Nonnenmacher. "Coercion, Culture and Debt Contracts: The Henequen Industry in Yucatan, Mexico, 1870-1915." (ES2008-0001) (PEC2008-0001). While most contemporary historians agree that the use of debt peonage as a coercive labor contract in Mexico was not widespread, scholars still concur that it was an important and pervasive institution in the Yucatan state during the henequen boom of the late 19th and early 20th centuries. The henequen boom concurred with the long rule of Porfirio Díaz (1876-1910), under whose watch property rights were reallocated through land laws, and Mexico's economy became much more closely tied to the United States. In the Yucatan, the accumulation of debts by peons rose as hacendados sought to attract and bond workers to match the rising U.S. demand for twine. The authors examine the institutional setting in which debt operated and analyze the specific functions of debt: who got it, what form it took, and why it varied across

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workers. They stress the formal and informal institutional contexts within which hacendados and workers negotiated contracts.

Natural Hazards Center

Christine Bevc presented “Across Town Ties: A Comparison of Regional Collaboration Networks” at the annual Sunbelt XXVIII International Sunbelt Social Network Conference in St. Petersburg, Florida, January 24. The presentation featured ongoing social networks research related to emergency preparedness with **Kathleen Tierney**, **Jeannette Sutton**, **Alexandra Jordan**, **Ashly Barlau**, and **Erica Kuligowski**.

POLITICAL AND ECONOMIC CHANGE PROGRAM

In Print

Mayer, Tom. “The Transformation of American Political Space 1982-2002.” *The Journal of Mathematical Sociology* 32, no. 1 (2008): 1-56. The range of acceptable positions about important political issues defines the political space of society. The author presents a model of how political space is transformed over time based upon linear differential equations. Constructible transformations of political space are ones that can be modeled by such equations and thus can result from gradual evolutionary change. A constructible transformation also preserves the distinctness of political positions, which means that distinct political positions remain different throughout the process of change. Non-constructible transformations, on the other hand, cannot be represented in this way because they embody political discontinuities of some kind. A simple typology of constructible transformations is discussed and illustrated. Methods of estimating the political space transformation model are outlined and applied to General Social Survey data for 1982, 1993, and 2002. This leads to an analysis of how American political space transformed from 1982 to 1993 and then from 1993 to 2002. The former transformation proves to be constructible while the latter is not, probably due to the effects of 9/11. The 1982-1993 period witnessed a tentative simplification of American political space featuring some left-right polarization. The 1993-2002 period is characterized by a conservatizing transformation of American political space which, the analysis suggests, could result from the attacks of 9/11.

POPULATION PROGRAM

In Print

Boardman, Jason D., Casey L. Blalock, and Tanya M. M. Button. “Sex Differences in the Heritability of Resilience.” *Twin Research and Human Genetics* 11, no. 1 (2008): 12–27. This study examines the heritability of psychological resilience among US adults aged 25 to 74 years. Using monozygotic and same sex dizygotic twin pairs from the National Survey of Mid-Life Development in the United States the authors show that positive affect is equally heritable among men ($h^2 = .60$) and women ($h^2 = .59$). They then estimate the heritability of positive affect after controlling for an exhaustive list of social and inter-personal stressors, and operationalize the residual for positive affect as resilience. According to this specification, the heritability of resilience is higher among

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men ($h^2 = .52$) compared to women ($h^2 = .38$). It is shown that self-acceptance is one of the most important aspects of psychological functioning that accounts for the heritability of resilience among both men and women. However, compared to women, men appear to derive additional benefits from environmental mastery that may enable otherwise sex-neutral resilient tendencies to manifest.

IN THE NEWS

The article "Boulder gets flood-level marker" appeared in the Sunday, February 24 edition of the Daily Camera. Steve Graff wrote about the planned memorial in honor of Gilbert White and his contribution to floodplain management. The 18-foot flood-level marker was co-designed by White's daughter, Mary White, an eco-artist. Features of the memorial include use of recycled glass, and markers for the 100-year and 500-year flood levels. Graff quotes Mary White "(My father) would be very pleased to have more flood education along the creek and to give people consideration on how to live in accord with nature." So far, half of the \$100,000 price tag has been raised. The full article can be found at: <http://www.dailycamera.com/news/2008/feb/24/boulder-gets-flood-level-marker/>. Editors' Note: Friends of Gilbert's and others who wish to make contributions to this project can make tax deductible contributions to The Community Foundation, Gilbert F. White Memorial Fund, 1123 Spruce St., Boulder, CO 80302; or donate on-line at <http://www.commfound.org/giving/GilbertWhiteFund.html>. The memorial design can also be viewed at this site.

UPCOMING COLLOQUIA

Please refer to the following webpage for the IBS colloquia schedules:
<http://www.colorado.edu/ibs/events/colloquia.html>.

RESEARCH PROPOSALS SUBMITTED

Environment and Society Program

Flores, Nicholas	Collaborative Research: The Mississippi Delta as a Coupled Social-Environmental System: Toward Resilient Coastal Restoration	National Science Foundation	09/01/08 - 08/31/11	New	\$135,000
Tierney, Kathleen Sutton, Jeannette (Co-PI)	Dutch-American International Centre for Water and Emergency Management (DAIC-WEM) The Ministry for Water Affairs of the Kingdom of the Netherlands (via George Washington University)		03/01/08 - 12/31/10	New	\$129,193

Health and Society Program

Barham, Tania	The Effect of Early Childhood Health Interventions on Adolescent Cognition in Rural Bangladesh	University of Colorado (Innovative Grant Program)	07/01/08 - 06/30/09	New	\$50,000
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Research Proposals Submitted continues on page 7

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Political and Economic Change Program

Blimes, Randall Leblang, David (as faculty sponsor)	Doctoral Dissertation Research in Political Science: Great Expectations: The Outcome of International Conflicts and Leadership Tenure National Science Foundation	09/01/08 - 08/31/09	New	\$11,295
Westfall, Aubrey Brown, David (as faculty sponsor)	Doctoral Dissertation Research in Political Science: Ties that Bind: Investigating the Determinants of Family Reunification Policy National Science Foundation	09/01/08 - 08/31/09	New	\$12,000
Brown, David	Political Protest and Electoral Outcomes: Land Seizures and their Impact on Elections in Brazil National Science Foundation	07/01/08 - 06/30/10	New	\$260,371
O'Loughlin, John	What Accounts for Perceptions of Islamic Religious Extremism in Europe? University of Colorado (Innovative Grant Program)	07/01/08 - 06/30/09	New	\$50,000

Population Program

Menken, Jane	African Population Studies and Training Program Supplement William and Flora Hewlett Foundation	04/01/08 - 09/30/09	New	\$105,000
Downey, Liam Strife, Susie (Co-PI)	Inequality, Power and the Environment University of Colorado (Innovative Grant Program)	05/01/08 - 09/30/09	New	\$50,000

Jane A. Menken, Institute Director

Environment and Society Program

Lee J. Alston, Director

Natural Hazards Center

Kathleen Tierney, Director

Political and Economic Change Program

Edward S. Greenberg, Director

Problem Behavior Program

Terence P. Thornberry, Director

Center for the Study and Prevention of Violence

Delbert S. Elliott, Director

Health and Society Program

Richard Jessor, Director

Population Program

Richard G. Rogers, Director

CU Population Center

Richard G. Rogers, Director

Population Aging Center

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