SPEA 2014:
A guide to the impact of research and scholarship at the School of Public and Environmental Affairs at Indiana University Bloomington
At Indiana University’s School of Public and Environmental Affairs in Bloomington, we’re intent on producing knowledge and developing leadership that serves the greater good – and we’re doing it with a quickening pace. The pressing challenges facing our world demand just such a response.

This report, the second in our annual series, highlights our scholarship and research and profiles the remarkable faculty that makes it possible.

Numbers tell part of the story. The number of articles produced annually by our faculty has almost doubled from a base of 87 in 2008 to 161 in 2013. The number of books has jumped from eight in 2008 to 18 last year and both publishing trends continue.

At least as telling are the topics that SPEA faculty are investigating and you’ll get a sense of that from the in-depth articles we include in this report. At a time of increasing water shortages worldwide, Shahzeen Attari demonstrates that we know little about our own water consumption. As governments trim budgets, Sergio Fernandez and a panel convened by SPEA demonstrate that outsourcing key functions is a two-edged sword.

We believe this emphasis on the value of thinking, researching, and writing is one of the factors in our ranking as the number two MPA program in the country out of 266 by U.S. News and World Report. We have the highest-ranked graduate program at a public university and several of our specialties are either best in the nation or in the top five. SPEA’s doctoral programs in public affairs and public policy are also among the top ranked in the nation according to the National Research Council.

Much as we take pride in those laurels, there is work to be done. We are creating new international partnerships, launching new programs to serve our growing study body, and expanding our popular SPEA Connect online MPA.

Whether in the virtual or physical classroom, the laboratory, or in those quiet moments when our faculty transform newly gained knowledge into words, our commitment is to make this 42nd year at SPEA its most meaningful.

I hope you find this report valuable and I truly welcome your comments and suggestions about this publication or anything concerning SPEA.

Sincerely,

John D. Graham, Ph.D.
Dean
Rajendra Abhyankar is a professor of practice of diplomacy and public affairs and the former ambassador of India to the European Union, Belgium, and Luxembourg, as well as Turkey and Syria. He is the author of the books *The Crossing* and *Stuff Happens: An Insider’s View on Indian Democracy*. He co-authored *India-Sri Lanka Relations: Future Imperfect* and *India and Afghanistan after 2014: Opportunities and Challenges*. The *New York Times* and other publications have sought his expertise on India and international relations and his op-eds have appeared in *The Huffington Post*, *India West*, and many others.

Dr. Osita Afoaku is a clinical professor and an expert in international and sustainable development, democratization, and state reconstruction in Africa, U.S.-African/Third World relations, and U.N. Security Council reform.


Prof. Lisa Blomgren Amsler (formerly Bingham) is the Keller-Runden Professor in Public Service and an expert in collaborative governance, dispute resolution, and labor law. She received the American Bar Association Section of Dispute Resolution’s Award for Outstanding Scholarly Work. A 2005 article she co-authored, “The New Governance: Practices and Processes for Stakeholder and Citizen Participation in the Work of Government” was named one of *Public Administration Review’s* 75 Most Influential Articles. She co-authored “Direct Public Engagement in Local Government” in the *American Review of Public Administration*. 
Dr. Shahzeen Attari, an expert in the psychology of resource consumption, co-authored the article “Reasons for cooperation and defection in real-world social dilemmas” in the journal *Judgment and Decision Making*. She co-authored “The water short list: The most effective actions U.S. households can take to curb water use” in *Environment: Science and Policy for Sustainable Development*. She authored “Perceptions of water use” in the *Proceedings of the National Academy of Sciences*. She wrote “Success Paths to Sustainable Manufacturing” with co-authors including Sanya Carley. She gave a TedX talk titled “Why don’t people conserve energy and water?”

Distinguished Professor Dr. David Audretsch is an expert in economic policy and entrepreneurship as well as Ameritech Chair of Economic Development, director of the Institute for Development Strategies, and director of the SPEA Overseas Education Program. He authored *Everything in its Place: Entrepreneurship and the Strategic Management of Cities, Regions and States* and *The Handbook of Local Competitiveness*. With Sameeksha Desai and others, he authored the article “Scientist Entrepreneurship across Scientific Fields” for the *Journal of Technology Transfer*.

Dr. Claudia Avellaneda is an expert in public management and governance in developing countries and in the local government, politics, and policymaking in Latin America. She co-authored “Mayoral Public Sector Work Experience and Tax Collection Performance in Colombian Local Governments” in *International Public Management Journal*. She reviewed “Decentralization and Reform in Latin America: Improving Intergovernmental Relations” in *Publius: Journal of Federalism*.

Dr. Matthew Baggetta, an expert on civil society and voluntary associations, received the Outstanding Academic Publication on Membership Organizations Award given by the Institute for Nonprofit Research, Education and Engagement for the paper “Leading Associations: How Individual Characteristics and Team Dynamics Generate Committed Leaders” in *American Sociological Review*. His article “Bridging Urban Diversity: Associations, Members, and Neighborhood Representation” is forthcoming in *Nonprofit and Voluntary Sector Quarterly*. With Jennifer Brass, he co-authored the article “Context-Based Instruction: What Traditional Social Science Disciplines Offer to Nonprofit Management Education” in the
Shahzeen Attari: A guide to household water conservation

Want to conserve water and save on your utility bill? A paper co-written by Shahzeen Attari and published in the journal *Environment* can help.

“The Water Short List: The Most Effective Actions U.S. Households Can Take to Curb Water Use” described how households can reduce water use substantially by simple actions such as installing more efficient appliances and changing day-to-day habits involving water consumption. While the suggestions may be familiar, the researchers are the first to put a comprehensive, quantitative estimate on the amount of water savings available to a typical household. They also found that some frequently discussed conservation steps actually consume more water than they save.

Authors of the *Environment* cover article were Attari and Benjamin D. Inskeep, an energy policy analyst with the N.C. Clean Energy Technology Center at North Carolina State University.

“As water availability is expected to become an increasingly urgent issue in the coming decades,” they wrote, “it is heartening to find that substantial reductions in household water use are readily available to U.S. households.”

Attari and Inskeep addressed potential savings of both indoor and outdoor water use, focusing on efficiency improvements through one-time technology upgrades as well as curtailment actions. The typical household, they found, could reduce indoor water consumption by 45 percent by improving efficiency and by 30 percent by changing habits and behaviors – with the greatest potential for savings coming from toilets and clothes washing machines. For example, replacing a standard toilet with a WaterSense-labeled toilet could save a family a whopping 18 percent of the water they consume.

Attari and Inskeep said many households could eliminate nearly all outdoor water use, which goes almost entirely for watering grass and other plants.

The article followed a March 2014 paper that Attari published that found Americans have little idea how much water is used by various activities. It is based on “The Short List,” an influential 2009 *Environment* article authored by Gardner and Stern, who analyzed the best ways to reduce energy consumption and address climate change.

The authors noted that water availability is a rising concern in the U.S., with many cities expected to face shortages in the 21st century. Americans use an average of 98 gallons of water per day, seven times what’s required to meet daily needs. Yet water is cheap, so there’s little incentive to conserve. Installing more efficient appliances and fixtures can produce savings, but up-front costs deter many consumers.

Drawing on data from the Water Research Association and the U.S. Geological Survey, Attari and Inskeep estimated indoor water consumption can be reduced by 45 percent through efficiency actions such as installing efficient toilets, washing machines, dishwashers, showerheads, and faucets. Households can reduce indoor water consumption by 30 percent, they say, by implementing curtailment actions such as reducing toilet flushes by a quarter, only washing full loads of clothes, and taking shorter showers.

Outdoor water use can be reduced or nearly eliminated by watering turf grass less often, using a rain barrel or other rain-harvesting system, watering all plants in the morning, replacing cool-season grass with warm-season grass that requires less watering, and installing drip irrigation systems.

Not all water saving tips actually produce savings. For example, one conservation campaign suggests “washing your face or brushing your teeth while in the shower.” The researchers said it would be far smarter to do those activities at the sink since a typical faucet uses far less water than a showerhead.

Regarding conservation policies, Attari and Inskeep wrote that “command and control” approaches, such as mandatory water restrictions, can be effective but are typically unpopular. They suggested market-based approaches, such as setting water rates closer to the long-run marginal cost of supply, offering bigger rebates on efficient appliances, and providing consumers with more information.

An editorial by *Environment* executive editor Timothy O’Riordan highlighted the Attari-Inskeep article and discussed the relationship between climate change and water availability and the challenges associated with changing behavior when there aren’t short-term incentives to do so.
Dr. Randall Baker is an emeritus professor. He is also Distinguished Professor at New Bulgarian University in Sofia, Bulgaria. He wrote Moresnet: the Curious Complexities of a Neutral Zone. He is an expert on historical perspectives in the analysis of contemporary environmental policy and problems.

Dr. A. James Barnes is former SPEA dean and an expert in environmental law and policy. The 12th edition was published of the textbook he co-authored, Law for Business.

Dr. Charles F. Bonser is dean emeritus and Ameritech Professor emeritus. He was the founding dean of SPEA in 1972. He is an expert in economic development, public finance, management, and leadership.


**Beth Cate**, J.D., is an expert in data governance and regulation, Constitutional law, and Supreme Court decision-making. She made presentations on collaborative governance at meetings of the Transatlantic Policy Consortium, Law and Society Association, and Midwest Public Affairs Conference.


Professor **Melissa A. L. Clark** teaches courses in water resources and is the director of the Indiana Clean Lakes Program. She has written a series of reports on lakes and watersheds for government agencies.

Dr. **Christopher Craft** is the Duey-Murphy Professor of Rural Land Policy and an expert on the effects of climate change, eutrophication, and other human activities on estuarine and freshwater wetlands and the restoration of ecosystems. He is the co-editor of *Wetland Soils: Genesis, Hydrology, Landscapes, and Classification*, 2nd edition. With John Marton, he is among the co-authors of both “USDA conservation practices increase carbon storage and water quality improvement functions: An example from Ohio” in *Restoration Ecology* and “Functional differences between natural and restored wetlands in the Glaciated Interior Plains” in the *Journal of Environmental Quality*.

Professor **Brian DeLong** is director of debate at Indiana University, coaching Hoosier teams to regional and national success in policy debate. His research interests include public sphere theory and political rhetorical communication studies within the realm of national security policies.

Dr. **Sameeksha Desai**, an expert in private sector development in conflict/postconflict recovery and political instability, co-authored the article “Ownership and Allocation of Capital” for the *Journal of Institutional and Theoretical Economics*. With David Audretsch and others, she authored the article “Scientist Entrepreneurship across Scientific Fields” for the *Journal of Technology Transfer*. She serves as the co-chair (American) of the Transatlantic Policy Consortium.

Dr. Michael Edwards, an expert on the recruitment, retention, and graduation of underrepresented students in STEM disciplines, teaches courses in chemistry and environmental science. He established a collaborative summer internship program with the United Nations Environmental Program in Jamaica, West Indies, for SPEA graduate students.


Dr. **Seth Freedman**, an expert in health, economics, and policy, co-authored “Public Health Insurance Expansions and Hospital Technology Adoption” in the *Journal of Public Economics*. Co-authors on the article included Kosali Simon.

Dr. **Beth Gazley** is an expert in nonprofit management, intersectoral relations, collaboration, and volunteerism. With Ashlyn Nelson, she authored “The Rise of School-Supporting Nonprofits” in *Education Finance and Policy*. She helped two SPEA doctoral students co-author their first academic articles: “Applying social role theory to gender and volunteering in professional associations,” co-authored with Rachel Fyall and published in *Voluntas, the International Journal of Voluntary and Nonprofit Organizations*, and “Evaluating a product donation program: Challenges for charitable capacity,” co-authored with Gordon Abner and published in *Nonprofit Management and Leadership*. With Ashley Clark, she authored a study on high performing association boards in collaboration with the American Society of Association Executives. She also serves as Chair of the SPEA Teaching and Learning Faculty Group.

Dr. **David Good** is an expert in quantitative policy modeling, productivity measurement in public and regulated industries, and urban policy analysis. He serves as director of SPEA’s Transportation Research Center.

Dr. **John D. Graham**, SPEA dean and an expert in government reform, energy and the environment, and the future of the automobile in both developed and developing countries, was co-editor of the book *Public Administration and the Modern State: Assessing Trends and Impact*. With co-authors including John Rupp and Sanya Carley, he wrote “Effects of providing total cost of ownership information on consumers’ intent to purchase a hybrid or plug-in electric vehicle” in *Transportation Research Part A: Policy and Practice*. With co-authors including Ashley Clark and Denvil Duncan, he wrote “Bumpy designs: impact of privacy and technology costs on support for road mileage user fees” for *National Tax Journal*, and “Demand for Benefit Taxation: Evidence from Public Opinion on Road Financing” in *Public Budgeting and Finance*. He co-authored “Regulatory and quasi-regulatory activity without OMB and cost-benefit review” for *Harvard Journal of Law & Public Policy*.
Dr. Kirsten Grønbjerg is Associate Dean for Faculty Affairs and Efroymson Chair in Philanthropy, Lilly Family School of Philanthropy, Indiana University-Purdue University, Indianapolis. She is an expert on nonprofit and public sector relationships and directs a group of researchers publishing a series of reports to help community leaders develop effective and collaborative solutions to community needs and to inform public policy decisions by providing baseline information about the Indiana nonprofit sector. She co-authored “Local officials support for PILOTs/SILOTs: Nonprofit Engagement, Economic Stress, and Politics” for the Academy of Management Proceedings.

Professor Daniel Grundmann is an expert on employment law and the human resources body of knowledge, management principles, organizational behavior, and government budgeting. He is Diversity Director for the Indiana State Council of the Society for Human Resource Management and serves as director of the Indiana Business Leadership Network for employment of people with disabilities.

Dr. Hendrik Haitjema is a professor emeritus and an expert in groundwater hydrology and groundwater flow modeling. He serves as Editor-in-Chief of the journal Groundwater, which is an international scientific publication published by the National Ground Water Association.

The Honorable Lee H. Hamilton is a professor of practice and director of the Center on Congress. He is an expert on Congress, homeland security, civic education and participation, American economic and foreign policy, and domestic politics. The Huffington Post and hundreds of print and online outlets across the country publish his regular commentary on national issues.
John D. Graham and Sergio Fernandez on Government Outsourcing

Government outsourcing can be effective and benefit taxpayers if certain steps are followed and certain conditions are met, according to a report from a panel of experts convened by Indiana University.

The international panel included former Pennsylvania Gov. Ed Rendell, former Indianapolis Mayor Stephen Goldsmith, and several prominent scholars and government officials. SPEA Dean John D. Graham brought the group together and Professor Sergio Fernandez co-authored the report.

“Government outsourcing or privatization can be a political, ideological, and emotional issue,” Graham says. “We wanted to determine the latest knowledge and lessons from research and experience. Our goal is to help enhance the value that government outsourcing can generate – including lower costs, higher performance, and greater responsiveness.”

The panel defined outsourcing as turning over to private enterprise substantial public functions and services, even infrastructure like bridges and toll roads. It is a growing practice that is taking new and more interesting forms. The report is titled “Government Outsourcing: A Practical Guide for State and Local Governments.”

Panelists were not unified in their enthusiasm for outsourcing. The more enthusiastic panelists noted that outsourcing allows government agencies to save money, improve quality or services, and focus on what they do best while encouraging new ideas and innovation. Those who took a more guarded view toward outsourcing noted that anticipated cost savings often fail to materialize, particularly when outsourcing initiatives are not designed and managed effectively.

“Despite these differences of opinion we were able to arrive at a set of recommendations we all agreed were based on strong empirical evidence and that state and local government officials could follow to improve the practice of outsourcing,” Fernandez says.

The panel offers nine recommendations in the report, including:

• Determine initial motivations for outsourcing. Governments including the state of Virginia and the cities of San Diego and Indianapolis have successfully outsourced maintenance of their motor vehicle fleets, the panel found. The governments had a clear vision of why they wanted private business to take over fleet maintenance. They got what they wanted: lower costs while maintaining or improving the quality of service.

• Select the “best” suppliers and partners. The low bidder isn’t always the best bidder, the panel concluded. Reputations, capabilities, and past performance are all key factors in addition to price. Weighing those considerations has proven effective for a regional government in Victoria, Australia, which has used a private firm for park, roadside, and building maintenance since 1993.

• Monitor and assess performance during and at the end of the contract. Policies should be in place to keep politics out of the evaluation process. The contract should clearly identify milestones, expectations, and output measures. Share performance information with everyone involved in the project. If there’s a dispute, try to resolve it constructively through negotiation, or if necessary, mediation or arbitration. To head off such problems, the city of Sandy Springs, Georgia, has a comprehensive approach to monitoring city staff employed by private companies. Those companies submit detailed quarterly and semi-annual reports to city managers, who also are in continual contact with contract workers. The community also acts as a watchdog, with a call center fielding 2,300 calls a week from residents.

About the panel

The ten-member panel met in person twice and studied the issue from various viewpoints over a two-year period with the assistance of SPEA faculty and staff. Co-chairs were Stephen Goldsmith, a faculty member at Harvard’s Kennedy School of Government and a former mayor of Indianapolis; and Ed Rendell, former mayor of Philadelphia and former governor of Pennsylvania. Other panelists were Graeme Hodge, Monash University; Jocelyn Johnston, American University; John McDonough, City of Sandy Springs, Ga.; Florian Schmitz, GORG Rechtsanwalte; David Van Slyke, Syracuse University; Clifford Winston, Brookings Institution; Mildred Warner, Cornell University; and David Yarkin, Government Sourcing Solutions.
Dr. Bradley T. Heim is an expert on the impact of tax policies on individual, household, and firm behavior; the impact of health policies on labor market outcomes; and income inequality. He co-authored “Rising Inequality: Transitory or Permanent? New Evidence from a Panel of U.S. Tax Returns 1987-2006” published in *Brookings Papers on Economic Activity* and wrote the article “Importing Corruption Norms from Overseas: Evidence from Corporate Tax Evasion in the United States” in the *Journal of Financial Economics* with co-authors including Anh Tran. He co-authored “Did Reform of the Non-Group Health Insurance Market Affect the Decision to be Self-Employed? Evidence from State Reforms in the 1990’s” in *Health Economics*.

The Honorable Paul Helmke is a professor of practice and director of the Civic Leaders Living-Learning Center. He is an expert in mayoral leadership, gun control, urban issues, law and public policy, civic education and participation, and nonprofit leadership.

Dr. Diane S. Henshel is an expert in risk assessment and sub-lethal health effects of environmental pollutants, especially pollutant effects on the developing organism. She is developing a new holistic cybersecurity risk assessment paradigm and is co-investigator on a $23-million Army cyberattack research program.

Dr. Adam Herbert is the former president of Indiana University and a professor emeritus. His expertise is in public and higher education policy and politics.
Dr. **Monika Herzig** is a touring jazz pianist and an expert in jazz history, concert promotion, the music industry, and jazz education. She leads a crowd-funded recording and touring project to study the role of women in jazz. She co-authored “Beyond Jamming: A Historical and Analytical Perspective on the Creative Process” in the *Journal of the Music & Entertainment Industry Educators Association*.

Distinguished Professor Dr. **Ronald Hites** is an expert in applying organic analytical chemistry techniques to the analysis of trace levels of toxic pollutants with a focus on the Great Lakes area. He is an associate editor of *Environmental Science and Technology* and co-authored *Elements of Environmental Chemistry* (2nd edition) with Jonathan Raff. With Amina Salamova, he co-authored “Halogenated flame retardants in baby food from the United States and from China and the estimated dietary intakes by infants” in *Environmental Science and Technology*.

Professor **Cheryl Hughes** is an expert in human resource management in the for profit and nonprofit sectors. She serves as faculty advisor for the IU student chapter of the Human Resources Association. She is a member of Indiana University committees on diversity and affirmative action and on mediation.

Dr. **Chaman Jain** is an expert in governmental and nonprofit accounting and financial management.
Dr. **Craig Johnson** is an expert in capital markets and financial intermediation, financial management, public budgeting and finance, financing e-government, financing economic development, and environmental and infrastructure finance. He chaired the advisory committee of a project that resulted in the report *Fiscal Benchmarking for Indiana’s Local Governments*. He co-authored the book, *State and Local Financial Instruments: Policy Changes and Management*.

Professor **William Jones** is a clinical professor emeritus. He is an expert in lake and watershed management, especially diagnosing water quality problems and preparing management plans.


Dr. **John R. Karaagac** teaches courses on public affairs, political economy, and comparative policy.


Dr. **Kerry Krutilla** is an expert in the theory and practice of benefit-cost analysis, environmental and energy policy analysis, and environmental and energy program evaluation. He is the principal investigator for a research project funded by the Electric Power Research Institute that assesses the cost-effectiveness of reducing mortality risks through federal regulation.

Dr. **Marc L. Lame** is a clinical professor and the director of the Master of Science in Environmental Science program. He is a national leader in the promotion and implementation of integrated pest management in schools. He is one of the developers of the “Monroe Model,” which is now considered a national standard for pest management.
Dr. Leslie Lenkowsky is an expert in nonprofits and public policy, civil society in comparative perspective, institutional grant-makers, volunteering and civic engagement, education and social welfare policy, and social entrepreneurship. He is a regular contributor to *The Chronicle of Philanthropy*.

Professor Frank C. Lewis is an expert in art history, contemporary theory, and criticism. He teaches courses in museum management.

Dr. Alvin Lyons teaches courses in nonprofit management. He is a nationally recognized trainer of development professionals and community leaders, with a focus on nonprofit board development. He also serves as curriculum director for the Global Social Entrepreneurship Institute offered through the IU Kelley School of Business Institute for International Business.

Dr. Joyce Y. Man is the director of IU’s Research Center for Chinese Politics and Business. She is an expert on public finance and budgeting, urban and regional economics, China’s fiscal policy, urban housing and land issues, and sustainable development. She was a co-editor of *China’s Land Policy and Economic Development* and of *The Future of Public Housing: Ongoing Trends in the East and the West*. 
Dr. John Marton is an assistant scientist and expert on wetland biogeochemistry, ecological restoration, wetlands, and water quality. With Chris Craft, he is one of the co-authors of “USDA conservation practices increase carbon storage and water quality improvement functions: An example from Ohio” in *Restoration Ecology*. Also with Craft, he is one of the co-authors of “Functional differences between natural and restored wetlands in the Glaciated Interior Plains” in *Journal of Environmental Quality*. He also co-authored “Phosphorus sorption dynamics in Louisiana marshes two years after the Deepwater Horizon oil spill” in *Journal of Geophysical Research-Biogeosciences*.

Professor Antonette McCaster teaches courses in public sector/nonprofit accounting and financial reporting.

Dr. Eugene B. McGregor Jr. is a professor emeritus. His research focus has been comparative approaches to complex public systems with an emphasis on strategic management and decision making. He directed the SPEA in Barcelona overseas education program.

Dr. Michael McGuire is the executive associate dean. He is an expert in intergovernmental and interorganizational collaboration and networks, federalism and intergovernmental relations, and public management. He co-authored “Network Management Behaviors: Closing the Theoretical Gap” with Robert Agranoff, which was published in the edited volume *Network Theory in the Public Sector: Building New Theoretical Frameworks*. Also with co-author Agranoff, his 2003 book *Collaborative Public Management: New Strategies for Local Governments* was selected for the Martha Derthick Book Award by the American Political Science Association. He published “Challenges of Intergovernmental Management” in *Journal of Health and Human Services Administration*. He is the co-author of “Policy Energy and Networks” in the journal *Complexity, Governance, and Networks*. He is associate editor for research synthesis in *Public Administration Review*. 
Dr. **Vicky J. Meretsky** is an expert in landscape-level conservation, conservation under climate change, ecology and management of rare species, integrating ecosystem research, and endangered species management within adaptive management. She co-authored “Learning from conservation planning for the U.S. National Wildlife Refuges” in *Conservation Biology*. She co-authored “Planning for Adaptation to Climate Change: Lessons from the US National Wildlife Refuge System” in *BioScience*.

Chancellor’s Professor Dr. **John L. Mikesell** is an expert in governmental finance, especially questions of policy and administration of sales and property taxation, state lotteries, public budgeting, and public finance in countries of the former Soviet Union. With Justin Ross, he authored “State Revenue Forecasts and Political Acceptance: The Value of Consensus Forecasting in the Budget Process” in *Public Administration Review*. He wrote “Misconceptions about Value-Added and Retail Sales Taxes: Are They Barriers to Sensible Tax Policy?” in *Public Budgeting & Finance*.

Dr. **Theodore K. Miller** is a professor emeritus. During his 32 years at SPEA, he developed expertise in statistical analysis and geography.

Dr. **Sarah Mincey** is an academic specialist, associate director of the Integrated Program in the Environment, and administrative director of the IU Research and Teaching Preserve. Her expertise is in natural resource management and policy, social-ecological systems, urban and community forestry, applied ecology, collective action, and institutional analysis. With Burnell Fischer and others, she authored “Private residential urban forest structure and carbon storage in a moderate-size urban area” in *Urban Forestry & Urban Greening*. 
Professor **Roger Morris** is an expert in managing information technology and database management systems for public affairs.

Dr. **Andrea Need** is an expert in environmental, administrative, and conservation law. She is deputy director of the Master of Public Affairs program, faculty advisor to the Law and Public Policy program, and is of counsel to the Conservation Law Center.


Dr. **Jill Nicholson-Crotty** is an expert in public and nonprofit management and the role of the sectors in the policy process. She co-authored “Does My Boss’s Gender Matter? Explaining Job Satisfaction and Employee Turnover in the Bureaucracy” in the *Journal of Public Administration Research and Theory*. 

SPEA2014: The year in research and scholarship
Kirsten Grønbjerg: *Recessions and Indiana’s Nonprofit Employment*

Kirsten Grønbjerg is the project director and lead author of “Recessions and Indiana’s Nonprofit Employment.” The report is a joint project of SPEA, the Indiana Business Research Center at IU’s Kelley School of Business, the Indiana University Lilly Family School of Philanthropy, and the Johns Hopkins Center for Civil Society Studies.

“Historically, the Indiana nonprofit sector has shown remarkable resilience, has been an effective partner for government service provision in times of crisis, and has been a strong contributor to high living standards in our state,” Grønbjerg says. “That resilience, though, is becoming uneven among the nonprofit industries and sub-industries. Shifting government funding priorities and changing population characteristics will likely continue to have an impact on the composition of the nonprofit sector, as well as the state’s slow climb to recovery from the Great Recession.”

Grønbjerg led a team of researchers that produced the report showing the state’s nonprofit sector grew every year from 1995 through 2011. That growth was driven mainly by the nonprofit healthcare and education industries.

Three smaller industries – arts, entertainment and recreation; social assistance; and membership and related organizations – proved to be much more vulnerable to recessions and other external pressures. In each case, employment and payroll grew during the early years of the 1995-2011 period, but then stalled and declined.

Arts, entertainment and recreation peaked in 2001, social assistance in 2004, and membership and related organizations in 2006. All three industries lost employment and payroll during the Great Recession of 2008-09 and continued to falter through the subsequent recovery.

Overall, however, Indiana’s nonprofit sector continued to grow through the recessions of March to November 2001 and December 2007 to June 2009.

“Recessions and Indiana’s Nonprofit Employment” focuses on how Indiana’s nonprofit and for-profit sectors reacted to the economic recessions of 2001 and 2008-09. In the height of the Great Recession, from 2008-2009, nonprofit employment grew nearly 2 percent and payroll grew 5 percent, while for-profit employment and payroll each decreased by 8 percent. Although government experienced very slight overall growth during the Great Recession, government employment and payroll decreased from 2009 to 2011.

Nonprofits in the health and education industries drove nonprofit-sector growth from 1995 to 2011. These industries, the authors note, “appear to have benefitted from the high and growing demand for these types of services and have helped bring significant levels of federal tax dollars to Indiana.”

Education increased the most of all nonprofit industries in employment (56 percent) and payroll (77 percent). Healthcare was not far behind, with employment growing 36 percent and payroll increasing 65 percent. In both industries, nonprofit growth in employment and payroll was led by a dominant sub-industry: colleges and universities, and hospitals, respectively.

However, closer analysis reveals a much more complicated pattern of divergent trends within the nonprofit sector itself.

“While education and healthcare nonprofits were quite resilient during recession periods, those providing social assistance, membership, and arts, entertainment, and recreation did not fare as well,” said SPEA’s Kirsten Grønbjerg. “These nonprofits, which provide vital social services and opportunities for cultural and community engagement, have faced significant challenges and may need particular attention in times of economic crises.”

Diverging patterns were seen even within the two major nonprofit industries that experienced overall growth. For example, while nonprofit colleges and universities grew in both employment and payroll from 2007 to 2011, nonprofit junior colleges saw major losses in both categories over the same time period. Similarly, while nonprofit hospitals grew almost every year, nonprofit nursing and residential care grew rapidly in the early years of the study (except for 1997 to 1998), but later slowed and even decreased.

Professor **Frank L. Nierzwicki** is an expert in civil engagement at the state and local level; urban studies at the federal, state, and local levels; and community development and planning at the local level.

Professor **Mark Norrell** is an expert in healthcare strategic planning and business development, and financial management, operations, and human resources management for healthcare provider organizations.

Dr. **Kimberly A. Novick** is an expert in forest ecology, ecosystem carbon and water cycling, and biometeorology. She co-authored “Inferring the contribution of advection to total ecosystem scalar fluxes over a tall forest in complex terrain” and “Eddy covariance measurements with a new fast-response, closed-path analyzer: spectral characteristics and cross-system.” Both were published in *Agricultural and Forest Meteorology*. She co-authored “Land management and land-cover change have impacts of similar magnitude on surface temperature” in *Nature Climate Change*. 
Dr. Nancy Obermeyer is an expert in the institutional, management, and societal aspects of implementing geographic information systems. She authored chapters on “Community Mapping” and “Public Access to Cartographic Information” in the forthcoming History of Cartography: Volume Six.

Dr. Patrick O’Meara is Vice President Emeritus of International Affairs and Special Advisor to the President at Indiana University. A professor emeritus, he is an expert on South Africa and southern Africa. His textbook Africa is now in its fourth edition.

Dr. Clinton V. Oster Jr. is a professor emeritus and an expert in transportation policy, transportation safety, energy policy, environmental policy, and economic development. He co-authored “Analyzing Aviation Safety: Problems, Challenges, and Opportunities” and “Analyzing Road Safety in the United States,” both in Research in Transportation Economics. He also co-authored “Chapter 5 – Transportation,” in Climate Change Impacts in the United States: The Third National Climate Assessment.

Dr. David E. Parkhurst is a professor emeritus and a mathematical biologist with expertise in physiological plant ecology and statistics. He is treasurer of the Bloomington Food Policy Council.
Dr. Roger B. Parks is a professor emeritus with expertise in police organization and performance. He recently served as evaluator for the Trinidad and Tobago Police Service’s Model Stations Initiative.


Dr. Flynn Picardal is an expert in bioremediation, environmental microbiology, and biogeochemistry. He received a major grant from the National Science Foundation to support research into natural gas production from coal.

Professor Orville Powell teaches courses in urban policy and city management. He received the 2014 Distinguished Service Award from the International City/County Management Association.

Professor Daniel Preston is the deputy director for Global Initiatives and director of SPEA in Croatia. He teaches public policy and international relations.

Dr. Thomas M. Rabovsky is an expert on accountability, performance management, managerial values and decision making, and higher education policy. He wrote “Using Data to Manage for Performance at Public Universities” in Public Administration Review. With Amanda Rutherford, he authored “Evaluating Impacts of Performance-Funding Policies on Student Outcomes in Higher Education” in The ANNALS of the American Academy of Political and Social Science. He co-authored “Higher Education and Congressional Influence on Administrative Decisions: An Examination of NSF and NIH Research Grant Funding to Four-Year Universities” in Social Science Quarterly.

Dr. Deepak Rajagopal is an expert on the economics of energy and environmental policy, lifecycle analysis and bioenergy systems, and the impact of climate change on agriculture.

Dr. J.C. Randolph is a professor emeritus. He is an expert in forest ecology and the ecological aspects of climate change.

Dr. David Reingold is an expert in urban poverty, economic development, social welfare policy, low-income housing policy, civil society, and government performance. He is the project director for the SPEA VISTA Fellows Program and procured and manages a training grant of $300,000 to provide up to 15 full-time fellowships (stipend and tuition remission) for professional graduate students in public affairs to work in leading not-for-profit organizations and governmental agencies on innovative antipoverty programs. The grant comes from the U.S. Corporation for National and Community Service.

Dr. Rafael Reuveny is an expert in international political economy, sustainable development, and the political economy of the Middle East. He co-authored a chapter “Moving to a better life? Climate, migration and population health” in the book Climate Change and Global Health.
Dr. **Edwardo L. Rhodes** is a professor emeritus now focusing his studies on applications of operations research and management science to public policy. This includes the areas of environmental justice and common property resource decision-making.


Dr. **Todd V. Royer** is an expert on water quality and his laboratory addresses questions related to aquatic biogeochemistry, particularly nitrogen, carbon, and phosphorus cycling in streams and rivers. He co-authored “Denitrification in Agriculturally Impacted Streams: Seasonal Changes in Structure and Function of the Bacterial Community” in the journal *PLOS/ONE*. 
Dr. Barry M. Rubin, chair of the Policy Analysis and Public Finance Faculty Group, is an expert in urban and regional economic development and impact analysis, state-level energy policy analysis, and strategic planning and management. With co-authors including Sanya Carley and Kenneth Richards, he wrote the research paper *A Method for Estimating Sub-State Consumption of Delivered Energy*. He also co-authored the paper *Social Capital and Metropolitan Economic Development*.

Dr. Michael Rushton is director of the Arts Administration programs and an expert in cultural economics, policy and administration, nonprofit organizations, and tax policy. He wrote the book, *Strategic Pricing in the Arts* and “Hybrid Organizations in the Arts: A Cautionary View” in the *Journal of Arts Management, Law, and Society*.

Dr. Amina Salamova is an assistant scientist who couples organic and analytical chemistry to identify and measure toxic pollutants in the environment. With Ron Hites, she is one of the co-authors of “Halogenated flame retardants in baby food from the United States and from China and the estimated dairy intakes by infants” in *Environmental Science and Technology*. In the same journal and with Hites, she was one of the co-authors of “Organophosphate and halogenated flame retardants in atmospheric particles from a European Arctic site” and “Interstudy and intrastudy temporal trends of PCBs, pesticides, and PAH concentrations in air and precipitation at a rural site in Ontario.” With Hites and Marta Venier, she was one of the co-authors of “Differences in Spatiotemporal Variations of Atmospheric PAH Levels between North America and Europe: Data from Two Air Monitoring Projects” in *Environment International*.

Dr. Yue (Jen) Shang is an expert in philanthropic psychology, donor behavior, fund development, and nonprofit marketing. With co-author Adrian Sargeant, she wrote *The Psychology of Philanthropy: The Science behind Giving*, which will be published in 2015.
Scientists around the world have never been more interested in understanding and monitoring carbon dioxide exchange between the atmosphere and forest ecosystems, given the role of forests in storing carbon and reducing climate warming. An important tool in that process is a 150-foot tower in Morgan Monroe State Forest owned by Indiana University and operated by SPEA in collaboration with other IU units.

Since 1998, what IU scientists call the MMSF Flux Tower has been providing data on the things everyday weather-watchers are interested in, like relative humidity and air temperature. But it also provides highly high-resolution observations of the rate at which forests can capture and store carbon dioxide through photosynthesis and growth. These processes are of interest to some of the world’s leading climate and ecosystem scientists, including SPEA’s Kim Novick, who manages the tower operations.

The tower is one of more than 500 similar towers operating around the world as part of the Fluxnet network, and among more than 120 operating across North, Central, and South America as part of the AmeriFlux network. Now, IU’s MMSF tower, the second-longest-running carbon dioxide flux monitoring site in the world, has been identified as one of just 11 core data-gathering sites by the AmeriFlux network. The MMSF tower was chosen based on the quality and longevity of data collected from the site, and on how representative its ecosystem processes are compared to other tower sites.

The new designation will ensure support for the ongoing maintenance of the tower and processing of data. It will also mean the spotlight will increase on the scientists, the data, and the resulting research produced from a monitoring location that has already helped researchers produce more than 60 different research papers over the past decade, which collectively have been cited more than 1,500 times.

Novick says that understanding how forests like Morgan Monroe remove carbon dioxide from the atmosphere is critical for closing regional and global scale carbon budgets, now and in the future. As a core site in the AmeriFlux system, the MMSF tower will also become a leader in developing new measurements and techniques for use across those larger networks.

“This designation reflects the contribution of a large number of Indiana University faculty, research scientists, and students who have helped to keep the tower running continuously since 1998,” Novick says. “It also goes directly to not only the quantity but also the quality of the data and the research that has since been produced from the site.”

Instrumentation on the tower measures the balance between how much carbon dioxide is taken up by trees through photosynthesis or released by the forest through the respiration of trees and soil microbes. This flux is recorded in timescales of less than a second.

The data gathered over the years produces findings of interest to scientists, landowners, and the forest industry. Some of those key findings include:

- Warmer temperatures tend to promote longer growing seasons characterized by earlier ‘leaf-out’ in the spring and later ‘leaf-off’ in the fall.
- Longer growing seasons are associated with a larger yearly sink for atmospheric CO2.
- However, the trend toward more carbon uptake in longer growing seasons has been dampened in recent years by a series of drought events, reducing the carbon sink capacity of the forest.
- A particularly severe drought in 2012 decreased the size of the annual carbon sink by nearly 40%, and severe declines in photosynthesis were observed in nearly all monitored species, including maple, tulip poplar, and sassafras.
- The photosynthetic rate of oak trees, however, did not decrease during the 2012 drought. Across the region, the number of mature oak trees has been declining. The fact that oak trees are relatively insensitive to drought is a factor that may mitigate the pace of oak decline.
Dr. **Joseph Shaw** is an expert in environmental toxicology, environmental genomics, and comparative physiology. He co-authored “Natural Selection Canalizes Expression Variation of Environmentally Induced Plasticity-Enabling Genes” in the journal *Molecular Biology and Evolution*.

Dr. **Roy W. Shin** is a professor emeritus. He was appointed Special Advisor to the President of IU on Global Partnerships. He was the invited keynote speaker by the government of the People’s Republic of China at a major economic/trade conference in Guangzhou, China, and by the government of the Republic of Korea at a regulatory policy reform forum in Seoul.

Dr. **Susan Siena** teaches courses in national and international affairs. She is the faculty advisor to IU’s Model United Nations team. Her research interests include techniques to promote active learning and critical thinking in the classroom as well as issues of national security, peacekeeping, and international organizations.

Dr. **Daniel Simon** is an expert in firm strategy, competition, and customer satisfaction. He co-authored “Do Incumbents Improve Service Quality in Response to the Threat of Entry? Evidence from Airlines’ On-Time Performance” in *Management Science*. 
Dr. Kosali Simon is an expert in health economics and policy. She authored “Issues of Private Health Insurance Systems” in *Encyclopedia of Health Economics*, a volume for which she is also section co-editor; co-authored “Taxpayer Willingness-to-Pay for Health Insurance Reform: A Contingent Valuation Analysis” for *Economic Inquiry*; co-authored “Financial distress and use of mental health care: Evidence from antidepressant prescription claims” in *Economics Letters*; and co-authored “Effects of Federal Policy to Insure Young Adults: Evidence from the 2010 Affordable Care Act’s Dependent-Coverage Mandate” for the *American Economic Journal: Economic Policy*. She is also co-author, with Seth Freedman and others, of “Public Health Insurance Expansions and Hospital Technology Adoption” in the *Journal of Public Economics*.

Professor Nan Stager, director of undergraduate programs, is an expert in mediation, negotiation, alternative dispute resolution, and public input processes. She is approved by the Indiana Commission for Continuing Legal Education to conduct civil and family mediator training workshops for attorneys and judges.

Rudy Professor Dr. Philip S. Stevens, chair of the Environmental Science Faculty Group, is an expert in characterization of the chemical mechanisms in the atmosphere that influence regional air quality and global climate change. He co-authored “OH and HO2 radical chemistry during PROPHET 2008 and CABINEX 2009 – Part 1: Measurements and model comparison” in *Atmospheric Chemistry and Physics*, and “Temperature dependence of the yields of methacrolein and methyl vinyl ketone from the OH-initiated oxidation of isoprene under NOx-free conditions” in *Atmospheric Environment*.

Dr. Anh Tran is an expert in institutions and behaviors of bureaucrats, entrepreneurs, and workers in developing countries. With Brad Heim and others, he is a co-author of “Importing Corruption Norms from Overseas: Evidence from Corporate Tax Evasion in the United States” in the *Journal of Financial Economics*. He co-authored “The Impact of Recentralization on Public Services: A Diff-in-Diff Analysis of the Abolition of Elected Councils in Vietnam” in the *American Political Science Review*. 
Dr. **Marta Venier** is an assistant scientist with expertise in the monitoring of persistent organic pollutants in the environment and human exposure to toxic chemicals. With Ron Hites and Amina Salamova, she was one of the co-authors of “Differences in Spatiotemporal Variations of Atmospheric PAH Levels between North America and Europe: Data from Two Air Monitoring Projects” in *Environment International*. With Hites and Salamova, she was also among the co-authors of “High Levels of Organophosphate Flame Retardants in the Great Lakes Atmosphere” in *Environmental Science and Technology Letters*.

Dr. **Frank J. Vilardo** is a professor emeritus with expertise in public and private health administration. His focus is on injuries as a public health problem from a behavioral perspective. He was the founder of SPEA’s program in healthcare management and policy.

Dr. **Henry K. Wakhungu** is an expert in development of growth simulation models for sustainable management of indigenous community forests, experimental designs in tropical forestry research, and service learning research. He was named Professor of the Year by the IU Delta Academy and made several presentations on education and teaching issues at faculty conferences in Indiana.

Dr. **Adam Ward** is an environmental scientist with expertise in watershed management, hydro-science, and engineering. He co-authored “A Comparison of Hyporheic Transport at a Cross-Vane Structure and Natural Riffle” in *Groundwater*. He co-authored “Antecedent moisture controls on stream nitrate flux in an agricultural watershed, Clear Creek, Iowa” in *A Journal of Environmental Quality*. He co-authored “Spatially distributed characterization of hyporheic solute transport during baseflow recession in a headwater mountain stream using electrical geophysical imaging” in *Journal of Hydrology*. 
Dr. **Jeffrey R. White** is director of IU’s Integrated Program in the Environment. He studies the effects of human activities on the functioning of aquatic and terrestrial ecosystems. Current projects concern climate change effects on greenhouse gas cycles in lakes, wetlands, and terrestrial soils of Arctic landscapes; plant and soil microbial community response to permafrost thaw; microbial control of reactive nitrogen emissions in agricultural soils; and bioreactor microbial community dynamics in an acid mine drainage treatment system. He co-authored “A Synthesis of Methane Emissions from 71 Northern, Temperate, and Subtropical Wetlands” in *Global Change Biology*.

Professor **Michael Wilkerson** is an expert in arts administration and cultural policy. He organized the Moving the World Forward Conference at SPEA for undergraduate students nationwide considering careers or graduate studies in public affairs.

Dr. **Coady Wing** is an expert on health and social policy, the regulation of labor markets, causal inference, and applied econometrics. He co-authored “Effects of Occupational Regulations on the Cost of Dental Services: Evidence from Dental Insurance Claims” in the *Journal of Health Economics*. He co-authored the chapter “Methodological problems in determining the consequences of military service” in the book *Life Course Perspectives on Military Service*.

Dr. **Charles R. Wise** is a professor emeritus with expertise in public management and employment policies and practices. He is the former editor of *Public Administration Review* and was founding director of the John Glenn School of Public Affairs at The Ohio State University.


Dr. Nikolaos Zirogiannis is an expert in applied econometrics, time series, environmental and natural resource economics, and environmental policy. He is the co-author of the working paper *Dynamic Factor Analysis for Cognitive Trajectories* and, with Sanya Carley, John Rupp, John D. Graham, and Ph.D. student Jessica Alcorn, he is one of the co-authors on the working paper “State level regulations for shale gas development in the U.S.: An empirical evaluation.”

Dr. C. Kurt Zorn is an expert in state and local finance. He is the IU Associate Vice Provost for Undergraduate Education. He also serves as the IU Faculty Athletics Representative.

Other SPEA faculty, not pictured:

Professor Terri L. Renner teaches several courses in financial management, with an extensive background and interest in healthcare financial management.
2013–2014 Ph.D. Graduates

**Dr. Jacob Bower-Bir**, Governance and Public Policy Specialist / Quantitative Analyst, HK Consulting

**Dr. Kwan Nok Chan**, Honorary Assistant Professor, University of Hong Kong

**Dr. Rachel Fyall**, Assistant Professor of Public Affairs, Daniel J. Evans School of Public Affairs, University of Washington

**Dr. Ed Gerrish**, Visiting Lecturer, Indiana University School of Public and Environmental Affairs

**Dr. Stephen M. Griffith**, Postdoctoral Fellow, Department of Chemistry, Hong Kong University of Science & Technology

**Dr. Sarah Larson**, Visiting Assistant Professor, Political Economy and Environmental Research (PEER) Fellow, School of Public and Environmental Affairs, Indiana University-Purdue University at Indianapolis

**Dr. Jennifer Liljegren**, Environmental Engineer, Indiana Department of Environmental Management

**Dr. Yuning Ma**, Postdoctoral Fellow, School of Geography, Earth & Environmental Sciences, University of Birmingham, UK

**Dr. Doris G. Navarro-Barnard**, Private Consultant

**Dr. Francisco Kennedy Souza**

**Dr. Jessica M. Vogt**, Visiting Assistant Professor, Furman University

**Dr. Lanlan Xu**, Research Associate, IMPAQ International