

SPEAAdvance

*News from the Indiana University Bloomington
School of Public and Environmental Affairs*

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Advancing Knowledge for the Greater Good



new & improved

SPEA PRESENTS OUR MOST RECENT FACULTY APPOINTMENTS – FALL 2018



B. Andrew Chupp
Senior Lecturer,
IUB
Ph.D., Georgia
State University,
2009

Focus: Public choice, public economics, environmental economics, energy economics, public policy, international macroeconomics



Jon Eldon
Lecturer, IUB
Ph.D., University
of California-
Santa Cruz,
2017

Focus: Agricultural ecology and ecosystem management, agronomy/crop/soil science, food security, and farmer adaptation in smallholder agricultural systems



James Farmer
Associate
Professor, IUB
Ph.D., Indiana
University, 2009

Focus: Sustainable food systems and human dimensions of natural resources



Laura Littlepage
Clinical
Associate
Professor, IUB*
MPA, New York
University, 1982

Focus: Civic engagement, nonprofit management, public policy

*Previously, Littlepage was a lecturer and senior researcher at SPEA IUPUI



Avram Primack
Lecturer, IUB*
Ph.D., Indiana
University, 1999

Focus: Using geographic information systems (GIS) to create large datasets for analytical use, land use management and human impact analysis using GIS and remote sensing, documenting biodiversity using GIS, and estimating the impacts of climate change on vegetation using hydrologic modeling

*Previously, Primack was a visiting lecturer



John Rupp
Clinical
Associate
Professor, IUB*
MS, Eastern
Washington
University, 1980

Focus: Energy systems, energy use and the environment, unconventional natural gas reservoir analysis, geological sequestration of carbon, public perception of energy development

* Previously, Rupp was an adjunct professor

Newly Tenured and Promoted –SPEA IUB and IUPUI

Tenure and Promotion to Associate Professor

- Shazheen Attari (IUB)
- Eric Grommon (IUPUI)
- Kim Novick (IUB)
- Brad Ray (IUPUI)

Promotion to Full Professor

- Kerry Krutilla (IUB)
- Jody Sundt (IUPUI)

Promotion to Associate Clinical Professor

- Dan Preston (IUB)

Promotion to Senior Lecturer

- Bill Foley (IUPUI)
- John Karaagac (IUB)
- Frank Lewis (IUB)
- Susan Siena (IUB)
- Michael Wilkerson (IUB)

Promotion to Associate Scientist

- Marta Venier (IUB)

asked&answered

HIGHLIGHTS OF FACULTY RESEARCH AND OUTREACH

Patient beware: SPEA researchers diagnose crowdsourced hospital ratings

Consumers can go to Google, Yelp and Facebook for crowdsourced insight about the experiences they'll have at a hospital, but they shouldn't expect foolproof guidance on the quality of care they will receive, according to new SPEA research. Researchers **Victoria Perez** and **Seth Freedman** compared social media ratings offered by patients with the extensive data available through the federal government's "Hospital Compare" website.

Their key findings:

- On patient experience – food, friendliness, amenities – the Google, Yelp, and Facebook ratings most often aligned with hospitals that are highly ranked by Hospital Compare for patient experience based on surveys.
- On quality of care and safety as measured on Hospital Compare, the Google, Yelp and Facebook ratings were not as accurate. In fact, 20 percent of the hospitals rated "best" within a local market on social media were rated "worst" in that market by



Seth Freedman and Victoria Perez

Hospital Compare on patient health outcomes.

"Our results indicate that crowdsourced ratings reflect measures of quality most easily observed, which is not all that matters in health care," Perez said. "While crowdsourced sites may provide similar information to the government's patient experience surveys, they are not a substitute for measures of clinical quality or patient safety."

The researchers acknowledge that finding that information can be a challenge. Their research highlights shortcomings with the Hospital Compare scores and a need to

communicate clinical quality more clearly to patients. Of the 57 Hospital Compare metrics, patients must wade through 46 to determine clinical quality and safety. Many may not apply to the specific condition for which they are seeking care.

"For patients broadly interested in the dimensions of clinical quality and safety, our research shows the need for better tools to help patients search for hospitals that meet their clinical needs," Freedman said.

While the Hospital Compare ratings have been available since 2005, only recently has it been possible to make a comparison with crowdsourcing sites. Because of the rapid growth of social media, 90

percent of hospitals now show up on Hospital Compare and on the crowdsourced sites.

“Our study establishes how the ‘best’ and ‘worst’ rankings in a hospital market depend on where a patient goes for information,” Perez said. “While five-star ratings are easy to understand, our research shows patients should think twice before using it as a single source of information for a life-changing decision about hospital care.”

An in-depth article about the research, **“Do Crowdsourced Hospital Ratings Coincide with Hospital Compare Measures of Clinical and Nonclinical Quality?”** was published in the peer-reviewed journal, *Health Services Research*.

Study raises concern about flame-retardant metabolites in bald eagles

Scientists have raised concerns for decades about toxic chemicals in the environment that accumulate in the tissues of birds, fish, and other animals. New research from SPEA that examined bald eagles suggests that’s only part of the story.

A study led by IU-SPEA environmental scientists finds that chemicals used in flame retardants, plasticizers, and other commercial products are broken down through the process of metabolism into other compounds. Researchers say not enough is known about the dangers posed by those compounds, known as metabolites.

“Most of these flame retardants and related chemicals can be readily metabolized,” said **Marta Venier**, a SPEA scientist and one of the authors of the study. “The issue here is that, in some cases, the metabolites can be more toxic than the parent compounds.”

The study was published in *Environmental Science & Technology*. Authors, in addition to Venier, are William Stubbings, Jiehong Guo and Kevin Romanak of SPEA and Kendall Simon and William Bowerman of the University of Maryland, College Park.

The researchers measured metabolites of flame retardants in bald eagle eggs in the Great Lakes region. They focused on “alternative” flame retardants that were introduced after it was discovered that earlier generations of the chemicals were persisting in the environment, causing health and environmental concerns.

In recent years, these alternative flame retardants have also been found in the environment. But when Venier and several collaborators looked for the flame retardants in eggs and serum of bald eagles in a recent study, they found the compounds in low concentrations or not at all.

One possibility was that the eagles weren’t absorbing the chemicals from their food and environmental exposure. But the researchers hypothesized that, instead, they were metabolizing the compounds so that only low concentrations of the parent compounds were passed on to the

eggs that the birds laid. Using sophisticated chemical analysis, they determined that’s what was happening.

“The results confirmed our hypothesis,” Venier said. “Some of these compounds are not found in high concentrations because they get metabolized.”

She said scientists don’t know a lot about the toxicity of the alternative flame retardants, and they know even less about the toxicity of their metabolites. In one test involving chicken embryos (not part of the SPEA research) exposure to the primary metabolite of an alternative flame retardant altered three times as many genes as exposure to the parent compound.

The SPEA study examined samples from 21 bald eagle eggs that failed to hatch. The eggs were collected between 2000 and 2012 in a monitoring project called the Michigan Bald Eagle Biosentinel Program.

In addition to being an iconic species and the official emblem of the United States, bald eagles can serve as “sentinel species” that provide warnings about environmental dangers to humans and other organisms, Venier said. They are at the top of the food chain, feeding on

Marta Venier



fish and waterfowl, making them susceptible to exposure to chemicals that persist in the environment. Formerly listed as an endangered species, in part because of the effects of the pesticide DDT in the environment, bald eagles are now increasing in number. But their recovery could be slowed by exposure to flame retardants and other pollutant chemicals, the researchers say.

Indianapolis nonprofits face growing demand for services while resources shrink

Indianapolis nonprofits are seeing increased demand for their programs and services while struggling with lean budgets and other administrative challenges, according to a new Indiana University report.

The report, “**The Indianapolis Nonprofit Sector: Overview and Challenges**,” uses data from a 2017 survey of about 260 Indianapolis-area nonprofits and was conducted by IU’s Indiana Nonprofits Project. It was produced at the request of the Indianapolis Public Library for the purpose of designing needs-based training programs and resources for nonprofits.

According to the report, the demand for programs, services, and activities increased for almost half of the nonprofits in Indianapolis over the past 36 months. At the same time, the majority have few employees and rely on volunteers; many are operating at or just above the margin. Many of these nonprofits lack some of the organizational components that are normally viewed as important for good management and transparency. They are also facing many other challenges, particularly with financial and marketing activities.



“The Indianapolis nonprofit sector is doing crucial work and is making significant contributions across a broad array of activities,” said **Kirsten Grønbjerg**, associate dean for faculty affairs at SPEA and the Efroymsen Chair in Philanthropy at the IU Lilly Family School of Philanthropy at IUPUI. «However, there is always room for improvement, and our research shows where improvements can be made. We are thrilled that the Indianapolis Public Library is using our findings to develop workshops for nonprofits.”

“These workshops will help provide information these small nonprofits need to survive and thrive,” said Tom Probasco, public services librarian at the Indianapolis Public Library. “Additionally, it will provide essential information to those wanting to start new nonprofit organizations and also potentially provide a unique educational experience to students studying the nonprofit sector.”

About the briefing

This briefing is the first in a series by the “Indiana Nonprofit Sector: Scope and Community Dimensions” project, designed to inform local community leaders and policymakers. The

analysis is a joint effort of the School of Public and Environmental Affairs and the Lilly Family School of Philanthropy. The briefing’s co-authors are the director of the project, Kirsten Grønbjerg, and research assistant and recent SPEA master’s degree graduate Hannah Martin.

SPEA researchers find gains in health insurance coverage from Indiana plan considered a national model

Indiana’s unique plan expanding access to Medicaid but requiring recipients to contribute to a health savings account has resulted in clear increases in insurance coverage that are in line with many other states using the traditional Medicaid expansion model, according to new SPEA research.

The Healthy Indiana Plan 2.0 is considered a national model as the Trump administration seeks ways to scale back the Affordable Care Act, also known as Obamacare, while increasing personal responsibility by recipients. Enrollees who fail to make monthly contributions to HIP 2.0

either receive less generous benefits or are locked out of coverage completely for six months.

The research, by SPEA's **Seth Freedman, Lilliard Richardson** (now at Penn State), and **Kosali Simon** is the first in-depth analysis of the impact on the availability of health insurance through HIP 2.0 since it was adopted in 2015.

Here are their major findings:

- Medicaid expansion through HIP 2.0 led to clear coverage gains in Indiana. Relative to states that did not expand Medicaid eligibility, Medicaid coverage in Indiana increased by 8.8 percentage points for individuals below the federal poverty level and by 6.7 percentage points for those just above the poverty level.
- The coverage gain in Indiana was smaller than among some neighbors such as Ohio and Michigan, which also expanded Medicaid coverage under the Affordable Care Act. However, the coverage effect in Indiana was larger than in many other states.
- Given the pivotal role played by Indiana's Medicaid expansion, further research is needed on possible reasons

for differences between gains in neighboring states and in Indiana.

"States that didn't expand Medicaid will likely now look for new strategies for providing health care to low-income residents, and they're going to look to Indiana's example," Freedman said. "We found smaller coverage gains than in neighboring expansion states but larger gains in Indiana than in many other states using the traditional Medicaid expansion model. Our findings underscore the need for further research examining plan complexity and cost-sharing requirements of the Healthy Indiana Plan."

The research is especially topical because the Trump administration is encouraging states to use Indiana as a model and expand coverage through work requirements and/or mandatory contributions after Congress failed to repeal key sections of the Affordable Care Act. Additionally, HIP 2.0 was adopted when Vice President Mike Pence was Indiana's governor, and it was designed by Seema Verma, now administrator of the Centers for Medicare and Medicaid Services for the Trump administration.

The peer-reviewed research by the IU team is a first step in understanding a complex and

evolving policy, Simon said. Richer data analysis is needed before policymakers and legislators can fully draw lessons from HIP 2.0 on the most efficient ways to increase coverage to low-income populations. An article with the full results of the research, "**Learning From Waiver States: Coverage Effects Under Indiana's HIP Medicaid Expansion**," is in the peer-reviewed academic journal *Health Affairs*.

SPEA scientists participate in month-long experiment to study indoor air pollution

Scientists can tell us a lot about outdoor air pollution and its effects on human health and the environment, but less is known about the air we breathe in homes, offices and other indoor spaces.

To help address that situation, SPEA atmospheric scientist **Phil Stevens** and several of his graduate students are participating in an ambitious project taking place in Texas. Together with researchers from a dozen other universities, they are conducting research to gain a better understanding of the indoor environments where most Americans spend 90 percent of their time. "It is the largest indoor air experiment conducted on an actual occupied environment," said Stevens, Rudy Professor in SPEA and professor of chemistry in the College of Arts and Sciences.

Called HOMEChem – for House Observations of Microbial and Environmental Chemistry – the project is funded by the Alfred P. Sloan Foundation and led by scientists at Colorado State University and the University of Colorado Boulder. For the month of June, researchers are studying indoor pollution under various conditions in



Kosali Simon



Brandon Bottorff

a manufactured home on the campus of the University of Texas at Austin. Operating from a tiny trailer adjacent to the test house, the IU scientists are measuring concentrations of chemical oxidants, including ozone and the hydroxyl radical, a highly reactive and short-lived compound that plays a key role in air pollution. Stevens' lab uses a laser-based instrument that is one of the few in the world capable of accurate measurements of hydroxyl radicals.

Stevens said that much of the previous research on indoor air pollution focused on the presence or absence of the radioactive gas radon and on volatile organic compounds that escape carpets and furniture. But everyday indoor activities produce chemical mixtures that can vary and transform in response to light, temperature and air flow. Not much is known about how that works.

"We've done a lot of measurements of outdoor chemistry, and we continue to do that," he said. "But until now, there have been very few measurements of what happens indoors."

Teams of scientists from other universities are studying the production and transformation of volatile organic chemicals, airborne particulates, microbes and other

components of indoor air pollution as part of HOMEChem. The researchers are conducting experiments to learn how chemical processes respond to cooking, cleaning, use of personal-care products and other typical indoor activities.

Modeling experts will draw on the vast data being produced to create models of how indoor activities affect air quality. The aim is to develop better methods to reduce pollution and protect health.

"What we're finding is, it's a very active environment," Stevens said. "With the surfaces in the environment, cooking and cleaning can produce a lot of transformations that we didn't know about."

Working on the experiment for the IU Bloomington team are Brandon Bottorff and Emily Reidy, doctoral students in chemistry, and Colleen Rosales, a doctoral student in environmental science. Preliminary results are expected to be shared at an indoor air conference sponsored by the Sloan Foundation in October. Analysis that includes whether the chemicals are potentially harmful will be published in academic journals. Also participating are researchers from Drexel University; Syracuse University; the University of Toronto; the University of California, Berkeley;

the University of California, San Diego; the University of Massachusetts, Harvard University; Washington University in St. Louis; and the College of William & Mary.

States boost renewable energy and economic development when utilities adopt renewable standards

States that require utilities to increase renewable energy see an expansion of renewable energy facilities and generation -- including wind and other renewable sources, but especially solar -- according to new research from SPEA and two other institutions.

SPEA's **Sanya Carley** led a team of researchers including **Nikolaos Ziogiannis**, an assistant scientist at SPEA, and law professors Lincoln Davies of the University of Utah and David B. Spence of University of Texas at Austin. The group closely examined the history and evolution of state renewable portfolio standards and interviewed more than 40 experts about renewable portfolio standards implementation.

Their findings are published in the peer-reviewed journal *Nature Energy*, in an article titled "**Empirical evaluation of the stringency and design of renewable portfolio standards.**"

The regulations, which require utilities to increase the percentage of energy they sell from renewable sources by a specified amount and date, have been adopted in varying forms by about 30 states. For example, New York requires 50 percent of all electricity sold in 2050 to come from solar.

"As the federal government moves away from climate mitigation policy, including abandoning the Paris Agreement, the role of state-

Sanya Carley



critical state energy laws are today, particularly as the Trump administration alters the national energy policy landscape. States are where the action is. They are driving the future of our electric grid.”

level policy tools such as RPS take on increasing importance,” said Carley.

Most states have adopted such standards, except those in the Southeast and parts of the Great Plains and Interior West, where fossil fuel prices are low. Nevada and Massachusetts were the first to adopt a renewable portfolio standard in the 1990s, and Hawaii’s is considered the most stringent, a pivotal measuring stick.

Renewable mandates drive renewable energy development across the U.S., the researchers found. The design of the policy, however, is of fundamental importance. These are key findings:

- When designing a renewable mandate, stringency is critical. The stronger the mandate, the more renewables a state develops.
- Other important design features include frequent planning processes and regulations that are mandatory rather than voluntary.
- States that allow utilities to count non-renewable energy, such as “clean coal” or other fossil fuels, to satisfy renewable mandates will

develop significantly less renewables, particularly less solar energy.

- In addition to the renewable portfolio standards, having a conducive economic climate and good resources (e.g., strong winds as in Iowa or abundant sun as in Arizona) is especially important.

Carley said that teaming up with researchers from three universities gave the project unique and unusual depth, including through its quantitative analysis and the use of structured expert interviews. The team developed a unique score to measure the stringency of renewable portfolio standard policies, then reaffirmed their findings by interviewing experts from government agencies, including public utility commissions and state energy offices, and renewable energy firms and associations.

“Policymakers face tough trade-offs when designing their RPS policies, such as whether to force in-state renewable energy for local economic development purposes, or to purchase renewables from other states at a potentially lower cost,” said Davies, of the University of Utah. “Our research also shows just how

Notable

AROUND THE SCHOOL

SPEA names its 2018 distinguished alumni

A leader in public affairs education and an expert in health system management are the recipients of the SPEA 2018 Distinguished Alumni Awards.

“So many of SPEA’s more than 34,000 alumni have led lives of significance, so it is a daunting challenge to select only two for this honor,” said SPEA Dean **John D. Graham**. “This year’s recipients are shining examples of what it means to lead for the greater good, and the arc of their careers demonstrates the transformational potential of an Indiana University degree.”

The alumni were honored at the SPEA undergraduate and graduate commencement ceremonies.

The 2018 recipients of the Distinguished Alumni Award are:

Trevor Brown, who received his Ph.D. in 1999, is the dean of the John Glenn College of Public Affairs at The Ohio State University. Brown has been a faculty member at Ohio State since 2001. His research focuses on public-private partnerships, government contracting, and democracy and democratic transitions. From the Ukraine to Ohio, Brown has worked with government and public organizations



Trevor Brown

to improve organizational and managerial performance.

“From one dean to another, Trevor Brown has my admiration,” Graham said. “His research, often conducted with SPEA faculty, has had an enormous impact. The Glenn College is a partner with SPEA and a worthy competitor in preparing the next generation of public affairs leaders.”

Steve Eller received his Bachelor of Science degree in 1984. He is chief human resource officer for Beacon Health System in South Bend, Indiana, overseeing the risk management and performance improvement departments. He is also



Steve Eller

active in the community, serving on several boards. Eller is an emeritus member of the IU Alumni Association Executive Council and an active member of SPEA’s Distinguished Alumni Council. He returns to campus often to give guest lectures and to mentor SPEA students.

“Steve is generous with his time, giving back to IU and to SPEA in so many ways,” Graham said. “His insight benefits our students, and so does his example. Steve’s leadership role in the healthcare industry shows what can be accomplished with a SPEA degree.”

Committee named to lead Dean Search

IU Bloomington Provost and Executive Vice President Lauren Robel has appointed a committee to identify candidates for the position of dean for SPEA. It is a core-campus school on both the IU Bloomington and IUPUI campuses.

John D. Graham, who has served as dean of SPEA since 2008, announced Aug. 8 that he will step down as dean Aug. 1, 2019, and return to the faculty.

SPEA was established in 1972 as the first school of its kind, bringing together the study of public affairs, environmental science and policy. Graham most recently oversaw the planning and opening of the new 34,000-square-foot Paul H. O'Neill Graduate Center.

In addition to a more than 50 percent increase in enrollment during Graham's tenure, SPEA has also expanded its academic offerings, which include public affairs, management, environmental science and policy, criminal justice, and arts administration. SPEA's Master of Public Affairs program is ranked No. 1 by *U.S. News and World Report*, as are its concentrations in nonprofit management, environmental policy and natural resources management, and public finance and budgeting.

"John Graham is a wonderful colleague who has focused on academic excellence in faculty hiring, research and academic programs during his successful 10-year tenure as dean," Robel said. "He will leave the school in terrific shape to recruit a worthy successor."

Austen Parrish, the Rudy Professor of Law and dean of the IU Maurer School of Law, will chair the search committee.

The committee includes representatives of faculty, staff and students at IU Bloomington and IUPUI. In addition to Parrish, they include:



- Charlie Abbott, administrative secretary, IU Bloomington
- David Audretsch, Distinguished Professor, IU Bloomington
- Shahzeen Attari, professor, IU Bloomington
- Claudia Avellaneda, associate professor, IU Bloomington
- Matthew Baggetta, associate professor, IU Bloomington
- Sanya Carley, associate professor, IU Bloomington
- Beth Cate, clinical associate professor, IU Bloomington
- Jerome Dumortier, associate professor, IUPUI
- Denvil Duncan, associate professor, IU Bloomington
- Sergio Fernandez, associate professor, IU Bloomington
- Lori Garraghty, executive director of development and alumni relations, IU Bloomington
- Maggie Hopkins, SPEA undergraduate student, IU Bloomington
- Janet McCabe, Dean's Council, IUPUI
- Stuart Nissenbaum, SPEA graduate student, IU Bloomington
- Doug Noonan, professor, IUPUI
- Daniel O'Donnell, assistant director of online education and online services, IU Bloomington
- Jonathan Raff, associate professor, IU Bloomington
- Kosali Simon, Wells Professor, IU Bloomington

Search support will be provided by Jacqueline Cushman, project specialist in the Office of the Provost.

As Dean Graham gives up his administrative duties at SPEA, here are highlights of his tenure as the school's fourth dean.



The dean enjoys teaching undergraduate classes and sharing his government and academic experiences with students.



Dean Graham's expertise on safety and regulatory issues was often in demand at congressional hearings.



SPEA's Manufacturing Policy Initiative was launched during the dean's tenure. Here, he speaks to business and political leaders at the National Press Club.



Dean Graham frequently participated in graduation and recognition ceremonies, greeting graduates as they crossed the IU Auditorium stage.



Dean Graham, with students and IU leaders, performs the ceremonial groundbreaking for the O'Neill Graduate Center.



SPEA expanded its international reach. The dean traveled to Vietnam to strengthen academic ties.

boldfaceNames

Kosali Simon co-authored an article in the *Journal of General Internal Medicine*: “Third Year of Survey Data Shows Continuing Benefits of Medicaid Expansions for Low-Income Childless Adults in the U.S.” Simon analyzed whether the ACA’s Medicaid expansions were achieving goals regarding insurance coverage, access to care, preventive care, self-assessed health, and risky health behaviors. The researchers found the expansions are helping to achieve those objectives, and the benefits have persisted three years after expansion.

She also co-authored an article in the *Journal of the American Medical Informatics Association*: “Hospitals’ adoption of intra-system information exchange is negatively associated with inter-system information exchange.”

Brad Heim and **Kosali Simon** co-authored an article in *Demography*: “The Impact of the Affordable Care Act Young Adult Provision on Childbearing: Evidence From Tax Data.” The researchers examined tax data to determine the impact of the ACA on childbearing. The impact is theoretically ambiguous: Gaining insurance may increase access to contraceptive services while also reducing the out-of-pocket costs of childbirth. Their results suggest that the ACA young adult provision led to a modest decrease in childbearing.

Ph.D. student **Sian Mughan** won the 2018 Association for Budgeting & Financial Management Michael Curro Student Paper Award for her paper “Budget Deficits and Revenue Extracting Activities in the Criminal Justice System.” Her paper follows trial case administrative data through the criminal justice system. She demonstrates that Indiana local governments experiencing fiscal stress



Sian Mughan

issue more traffic tickets, extract more revenue per trial case, engage in more revenue-oriented sentencing, and more aggressively enforce penalties for defendants who fail to pay their court fees on time. In his nomination letter for the award, **Justin Ross** described it as “a contender for the most important paper written in public finance this year.” A SPEA student has now won the award in three consecutive years, with Mughan following **Luke Spreen** (2017) and **Kate Lang Yang** (2016).

Brad Fulton co-authored an article in the *Journal of HIV/AIDS & Social Services*: “Religious congregations addressing HIV: Examining predictors of different types of congregation-based HIV activities.” With four co-authors from the RAND Corp., Fulton analyzed data from a nationally representative survey of U.S. congregations. They found that about 19 percent of all congregations engage in some form of HIV activity, including prevention, providing care, raising awareness, and making donations. This

study can help public health officials better understand how congregations are addressing HIV and how involvement varies across different types of congregations.

Fulton also co-authored an article in *Psychiatric Services*. For “Prevalence and Predictors of Mental Health Programs among U.S. Congregations.” This article was featured on the *From Pages to Practice* podcast.

Avram Primack co-authored an article in the *International Journal of Climatology*: “A Recent Climate Study of the Caribbean’s Leeward Islands – Implications for a Climatic Shift and a Possible Solar Connectivity.” With a team of researchers from the University of the Virgin Islands, the Air Force Academy, and OrangeWave Innovative Science, Primack analyzed 60 years of climate data from the Leeward Islands. The team found evidence that climate change is bringing diurnal warming and enhanced precipitation, strengthening arguments that the Caribbean is a climate dominated by the Tropical North Atlantic Ocean.



Phil Stevens

Phil Stevens accepted a \$743,509 grant from the Sloan Foundation. He will study the importance of the hydroxyl radical (OH) in the chemistry and air quality of indoor environments where people spend about 90 percent of their time. Stevens and a co-researcher will conduct some of the first extended and comprehensive measurements of OH radical chemistry in a variety of indoor environments as they seek to assess risk factors associated with exposures to indoor air pollutants.

David Audretsch and **Sameeksha Desai** co-authored an article in *Entrepreneurship Theory and Practice*: "National Business Regulations and City Entrepreneurship in Europe: A Multilevel Nested Analysis." Audretsch and Desai helped develop and test a multilevel (country-city) nested model to analyze the relationship between national business regulations (NBRs) and city level entrepreneurship. Using panel data from 228 cities in 20 European countries, they found that NBRs related to property registration and taxes are more consequential for city level entrepreneurship than NBRs related to entry and contract enforcement.

Dan Cole co-authored an article published in the digital magazine *Aeon*. With Aurelian Craiutu (IU Political Science Dept.), Cole wrote "The Many Deaths of Liberalism." The authors reviewed critiques of

liberalism and recounted reports of its imminent demise. They note that liberalism is about solving problems and inevitably leads to dissatisfaction but remains the best means of maintaining and improving our coexistence on Earth. Cole and Craiutu argue declaring liberalism dead may sell books but it doesn't solve any of the real problems modern liberal societies confront including threats to widely accepted liberal values.

Kim Novick co-authored an article in *Agricultural and Forest Meteorology*: "Water balance of pine forests: Synthesis of new and published results." Novick and

seven other researchers analyzed the water budgets of pine forests worldwide. They found that forests have a limited capacity to respond to significant changes in precipitation. The U.S. Forest Service supported the research because the forest hydrologic cycle is expected to have important feedback responses to climate change, impacting processes ranging from local water supply and primary productivity to global water and energy cycles.

Kand McQueen co-authored an article in the *Journal of Humanistic Psychology*: "Unemployment and Marital Quality in Great Recession America: An Exploratory Canonical Correlation Analysis." McQueen assessed how unemployment during the Great Recession affected marital quality based on participants' beliefs about marital roles (on a continuum from more traditional to more progressive) and on their levels of education, duration of marriage, and duration and frequency of unemployment. Among the findings: faith in and commitment to the relationship seemed to sustain marriages despite the short-term obstacle of unemployment, which echoes humanistic psychologists' focus on resilience in relationships.

Maureen Pirog edited a special issue of *Contemporary Economic Policy* published by the Western Economics Association



Kim Novick

Maureen Pirog



International. For “The Economics and Policy Ramifications of an Aging Population,” Pirog selected ten articles from U.S. and international scholars. Topics include the effects of official retirement rates on suicides in the U.S., labor market participation of women in urban China, and the fiscal sustainability of the social welfare state in Finland. Pirog wrote the special edition is timely because the world’s aging population is increasing, giving rise to numerous policy issues in the arenas of health, social welfare, and economic growth.

Amina Salamova and graduate student **Karen Arnold** co-authored an article in *Environmental Pollution* – “A pilot study on semi volatile organic compounds (SVOCs) in senior care facilities: Implications for older adult exposures.” With four co-authors from institutions in Portugal, Salamova and Arnold analyzed five groups of SVOCs found in dust samples collected from 14 senior centers in the U.S. and Portugal.

Salamova, **Marta Venier**, **Ron Hites**, and post doc **Shaorui Wang** co-authored an article in *Environmental Science & Technology*: “Spatial and Seasonal Distributions of Current Use Pesticides (CUPs) in the Atmospheric Particulate Phase in the Great Lakes Region.” The authors analyzed spatial and seasonal

variations of current use pesticides (CUPs) levels in the atmospheric particulate phase in the Great Lakes basin. Twenty-four hour air samples were collected at six sites. Significantly higher concentrations of most CUPs were observed in the warmer months than in the colder months.

Nikolaos Ziropiannis and **Kerry Krutilla** co-authored an article in the journal *Social Indicators Research*: “Human Development Over Time: An Empirical Comparison of a Dynamic Index and the Standard HDI.” The authors use a dynamic factor analysis algorithm co-developed by Ziropiannis to construct a dynamic version of the Human Development Index (HDI). The performance of the dynamic index and the conventionally formulated HDI are then compared in a mixed effect regression model and a Monte Carlo simulation experiment.

Adam Ward, **Jeff White**, **Todd Royer** and former student **Joseph Morgan** (now at EPA) co-authored an article in *Hydrological Processes*: “Streambed restoration to remove fine sediment alters reach-scale transient storage in a low-gradient 5th order river, Indiana, USA.” This work documents the restoration of the Fawn River in Northern Indiana following an accidental release of sediment from a fish hatchery, with the work funded in part by the Fawn River Charitable Trust. Based on

results from field experiments, they found that restoration likely traded storage of water in in-stream aquatic vegetation beds with storage in the pore space of the gravel.

Rajendra Abhyankar authored a book: *Indian Diplomacy: Beyond Strategic Autonomy* (Oxford University Press, June 2018). Abhyankar charted India’s interactions with other countries from the early days of independence to now and reviews the changes in stance. In what the publisher describes as a foreign policy primer, Abhyankar defined India’s foreign policy and the aspects that determine and shape it. Before joining SPEA’s faculty, Abhyankar retired from the Indian Foreign Service as India’s Ambassador to the European Union, Belgium, and Luxembourg.

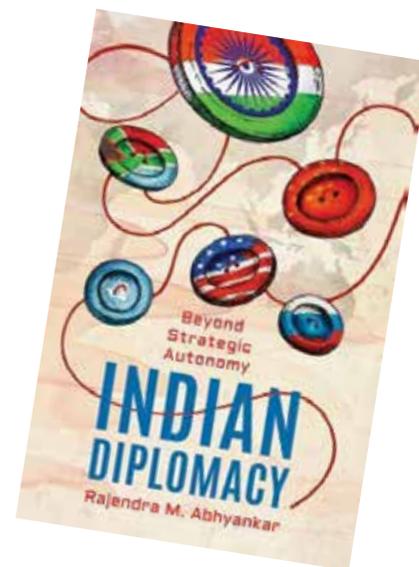


photo Finish



Student Michelle Long questions Chicago mayor Rahm Emanuel as part of her internship at Chicago City Hall.



SPEA Connect online students meet with Greene County, Indiana officials as part of Capstone research on opioid abuse.



These Hoosiers are home – welcoming the new class of graduate students in the elegant Alumni Hall at Indiana Memorial Union.



SPEA professor Amanda Rutherford and husband Jeff welcomed daughter Kendall Nicole Rutherford.



This is the class photo for our new group of Civic Leaders, residents of SPEA's fast-growing living-learning center for freshmen.



Grad students in Environmental Management visit the Hoosier Energy solar array near Ellettsville. Josh Cisney of Hoosier Energy (SPEA '14) leads the tour.



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