

# Northwestern

# INSTITUTE FOR POLICY RESEARCH

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## 2017 Year in Review

PHOTOS FROM THE COVER:

2017 YEAR IN REVIEW



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## MESSAGE FROM THE DIRECTOR



Diane Whitmore Schanzenbach,  
IPR Director

I returned to Northwestern in September to become IPR's seventh director after spending two years at the helm of The Hamilton Project in Washington, D.C. I am honored to serve in this role at IPR, which has been an important intellectual home to me since I arrived on campus in 2010.

Our faculty's production of rigorous and relevant research is impressive and inspiring. For example, we have psychologists, anthropologists, and physicians studying the pathways through which economic hardship is transmitted across generations. We see development economists working alongside sociologists and political scientists to understand myriad issues surrounding global poverty and development. We have a psychobiologist who teamed up with an education economist to examine how stress affects teens' schooling. You can find these—and many other interdisciplinary projects—in the following pages.

We continue to bring top policy scholars to discuss research and ideas. This year, we welcomed three new fellows: sociologist **Andrew Papachristos**, labor economist **Ofer Malamud**, and political scientist **John Bullock**. They join

IPR's current roster of nearly 150 fellows and associates spread across the University's campuses and schools. Additionally, six new fellows will be joining the Institute in fall 2018 (see p. 4).

Over the year, our highly talented IPR faculty continued to win substantial grants and acclaim for their research (see pp. 78–80). These included election to some of our nation's most prestigious scholarly bodies, such as sociologist and IPR associate **John Hagan's** election to the National Academy of Sciences and the election of IPR economists **David Figlio**, my predecessor who is now dean of the School of Education and Social Policy, and **Morton Schapiro**, Northwestern's president, to the National Academy of Education. **Teresa Woodruff**, dean of The Graduate School and an IPR associate, received a Guggenheim Fellowship. Economist **Charles F. Manski** and psychologist **Alice Eagly**, two giants in their respective fields, received lifetime achievement awards, and three of us received chairs, health psychologists **Edith Chen** and **Greg Miller** and myself. I would add that this pursuit of excellence is not just true of our faculty, but also of our students and staff: Doctoral student **Mollie McQuillan**, an IPR graduate research assistant, received a Presidential Fellowship, and Business Administrator **Eric Betzold** became Northwestern's 2017 Employee of the Year.

In addition to its mission to produce original research with policy impact, the Institute also seeks to disseminate it widely, which we accomplish in many ways. To foster policy dialogue and exchange across the IPR and Northwestern community, IPR held more than 50 events over

2017–18, including two distinguished lectures, one by former IPR fellow and sociologist **Kathryn Edin**, now at Princeton University, and another by the president of the Spencer Foundation **Na'ilah Suad Nasir**. Nearly 40 undergraduates took part in meaningful policy research as part of our highly successful summer research assistants program. Developmental psychologist **Terri Sabol** asked her undergraduate class to develop evidence-based policy proposals for early childhood education that were presented to the governor's office. We held workshops that examined a range of issues from democratic change, to household water insecurity, to U.S. policy responsiveness. Our faculty injected their evidence-based research into public discourse by testifying before Congress, delivering keynote lectures, writing opinion pieces, and speaking with news outlets from the Washington Post and New York Times to Fox News and Forbes. We also produced a steady stream of policy research content in the form of briefs, infographics, and other publications (see pp. 4, 75–77, and 88).

If there's one thing that I learned in Washington, it is that facts and data are often in short supply. IPR research is one antidote to that: It is not only innovative and interdisciplinary, but unbiased, rigorous, and always available at [ipr.northwestern.edu](http://ipr.northwestern.edu). I hope you will join us in continuing the policy discussion either online or in person at one of our events.

A handwritten signature in black ink that reads "Diane". The signature is written in a cursive, slightly informal style.

Diane Whitmore Schanzenbach,  
IPR Director and Fellow, and  
Margaret Walker Alexander Professor

# Questions We Need to Ask Ourselves

- Do we believe that we can make progress?
- What are the mechanisms for our work to have impact?
- How do we remain both engaged and politically neutral?
- Are we training the scholars we need to do this work?



Na'ilah Suad Nasir, president of the Spencer Foundation, outlined her "lofty goals" for the future of education research at a special lecture hosted by IPR and the School of Education and Social Policy on November 14, calling for an investment in big ideas.

## HIGHLIGHTS OF 2017



IPR has welcomed three new fellows since September, with six more to join next fall. Clockwise from left: Sociologist Andrew Papachristos, political scientist John Bullock, sociologist Julia Behrman (joining in fall 2018), and economist Ofer Malamud.

### IPR WELCOMES NEW DIRECTOR AND FELLOWS

On September 1, IPR economist **Diane Whitmore Schanzenbach** became IPR's seventh director. She returned to the Institute after spending two years at the helm of The Hamilton Project in Washington, D.C. She took over from **David Figlio**, who became dean of Northwestern's School of Education and Social Policy. IPR has also welcomed three new faculty fellows since September 2017, sociologist **Andrew Papachristos**, political scientist **John Bullock**, and economist **Ofer Malamud**. Papachristos examines crime and gun violence using network analysis. Bullock investigates how partisanship affects people's political views. Malamud is a labor economist examining why education improves outcomes and how skills develop over a person's life. Sociologist **Julia Behrman**, who investigates development issues, will be one of six coming aboard in fall 2018. These new fellows add their expertise to IPR's nearly 150 faculty, representing 30-plus departments across the University.

### IPR DISTINGUISHED LECTURERS

Sociologist **Kathryn Edin** discussed extreme poverty in the United States as IPR's 2017 Distinguished Public Policy Lecturer on February 16. Now at Princeton University, Edin recounted how the "death of welfare" led to an increase in the number of Americans living on less than \$2 a day.

With the School of Education and Social Policy, IPR hosted **Na'ilah Suad Nasir**, the Spencer Foundation's recently appointed president, on November 14. She met with faculty and students and outlined her vision for the future of education research in her lecture.

### POLITICAL AND SOCIAL BEHAVIOR WORKSHOP

More than 100 faculty and graduate students from the Midwest and beyond attended the May 5 Chicago Area Political and Social Behavior Workshop, organized by IPR political scientist **James Druckman**. In the keynote, Vanderbilt's **Larry Bartels** discussed how U.S. policy responsiveness has become more tilted toward the affluent over time. Also presenting were **Cara Wong** of the University of Illinois at Urbana-Champaign on the politicization of places, IPR associate and political scientist **Chloe Thurston** on the politics behind U.S. home ownership, and **Michael Wagner** of the University of Wisconsin-Madison on how journalists perceive bias and decide what is newsworthy.

### HOUSEHOLD WATER INSECURITY WORKSHOP

IPR anthropologist **Sera Young** hosted an international workshop to improve data collection for the first cross-culturally validated scale of household water insecurity. The researchers from 17 universities and six countries are validating the scale across 29 study sites (see p. 27).

### DEMOCRATIC CHANGE WORKSHOP

IPR political scientist **Rachel Beatty Riedl** led “The Democratic Change Research Initiative: Global Trajectories and Policy Analysis,” an April 12 workshop co-sponsored by IPR and the Buffett Institute for Global Studies. Speakers from Oxford, Harvard, Princeton, Stanford, and Gothenburg, in addition to Northwestern and other universities, spoke on authoritarianism in democracy and democratic breakdown in the West, among others (see p. 42).

### TRAINING RESEARCHERS

Each summer IPR’s Summer Undergraduate Research Assistants (SURA) program pairs Northwestern undergraduates with IPR experts to collaborate on faculty research. The 2017 program matched 37 students with 31 faculty to study social science issues from congressional gridlock to children’s media use. IPR education researcher and SURA director **James Rosenbaum** said the program gives students hands-on research experience, enhancing their learning experiences (see p. 85). IPR social psychologist emeritus **Thomas D. Cook** led a two-week workshop on quasi-experiments in education for 40 researchers, sponsored by the Institute of Education Sciences (see p. 57).

### CLASS OFFERS POLICY PROPOSALS TO STATE

As part of a policy-oriented class designed by developmental psychologist **Terri Sabol**, an IPR associate, undergraduates in the School of Education and Social Policy (SESP) worked in teams to address pressing child policy issues in the state. The students then presented their research-based recommendations to policymakers at the Illinois governor’s office on June 13 in Chicago.

### MAJOR AWARDS AND HONORS

Sociologist and IPR associate **John Hagan** was elected to the National Academy of Sciences. IPR economists **David Figlio**, SESP dean, and **Morton Schapiro**, Northwestern University president and professor, were elected to the National Academy of Education. IPR health psychologists **Edith Chen** and **Greg Miller** and IPR Director and economist **Diane Whitmore Schanzenbach** were invested in chairs. IPR psychobiologist **Emma Adam** received a \$1 million Lyle Spencer Research Award. Oncofertility specialist and IPR associate **Teresa Woodruff**, dean of Northwestern’s Graduate School and associate provost for graduate education, was awarded a Guggenheim Fellowship. IPR economist **Charles F. Manski** and IPR psychologist **Alice Eagly** received



Former IPR fellow Kathryn Edin, now at Princeton University, discussed extreme poverty in the United States as IPR’s 2017 Distinguished Public Policy Lecturer on February 16.

lifetime achievement awards. The University selected **Mollie McQuillan**, a doctoral student and IPR graduate research assistant, for a Presidential Fellowship. IPR Business Administrator **Eric Betzold** was named as the 2017 Northwestern Employee of the Year (see pp. 78–80).

### NOTABLE MEDIA COVERAGE

The Guardian covered IPR psychobiologist **Emma Adam**’s study of how nearby crimes can affect teens’ sleep and grades. The Wall Street Journal, CNN, and others picked up IPR sociologist **Lincoln Quillian**’s meta-analysis, showing that hiring rates for blacks and Latinos remained largely unchanged for the past 25 years. PBS NewsHour covered a study by medical social sciences professor and IPR associate **Brian Mustanski** linking same sex marriage laws to fewer suicides by LGBTQ youth. Science and Fox News were a few of the many covering oncofertility specialist and IPR associate **Teresa Woodruff**’s study of 3D printed ovaries that restored fertility in mice. Outlets including Science Friday and The Economist covered IPR economist **Seema Jayachandran**’s study of how paying farmers to not cut trees can reduce deforestation and mitigate climate change. IPR economist **Jonathan Guryan** co-authored an op-ed in the Chicago Sun-Times on how violence can be prevented by an intervention that helps youth to slow down and think before they act (see pp. 81–82).

IPR provides policymakers evidence-based social science research to inform public discourse and policymaking.

## UNDERSTANDING SNAP AS AN INVESTMENT



IPR Director and economist **Diane Whitmore Schanzenbach** testified before the Senate Agriculture, Nutrition, and Forestry Committee in a September 14 hearing to discuss nutrition programs, including the Supplemental Nutrition

Assistance Program (SNAP) covered by the 2018 Farm Bill. Schanzenbach covered what research, including her own, says about the benefits of SNAP—for example, those who benefited from SNAP as children were 18 percentage points more likely to graduate high school. She also offered the committee suggestions for improvements to the upcoming bill. Schanzenbach underscored how SNAP is a smart public investment that improves both public health and economic growth.

## PROVIDING INSURANCE TO IMMIGRANT CHILDREN TO LOWER ER USE



IPR sociologist **Christine Percheski** and Sharon Bzostek of Rutgers University compare insured children with their uninsured siblings in immigrant families. Uninsured children were six times more likely to depend on the emergency room for care and more than 12 times more likely to lack a usual source of healthcare. Public insurance increases utilization of healthcare and decreases reliance on hospital emergency rooms and departments. Expanding public health insurance to cover more children in immigrant families will likely improve children's access to healthcare.

## ATTENDING COMMUNITY COLLEGE FOR CAREER SUCCESS



*In Bridging the Gaps: College Pathways to Career Success* (Russell Sage Foundation, 2017), IPR education researcher **James Rosenbaum** and his colleagues propose college options such as certificates and associate degrees as strong alternatives to bachelor's degrees with significant earnings payoffs. They provide roadmaps to reorganize community colleges so students are more likely to complete programs. They also discuss the implementation of their findings at Harper College in Illinois and Guttman College in New York.

## ANALYZING MASS INCARCERATION TO REFORM IT

The United States has the highest incarceration rate of any industrialized nation, with extreme disparities for racial minorities. In her new book, *Building the Prison State: Race and the Politics of Mass Incarceration* (University of



Chicago Press, 2018), IPR sociologist **Heather Schoenfeld** reframes the story of mass incarceration as an enormous increase in the state's capacity to punish.

She highlights how the current situation cannot be understood without a clear grasp of the past.

Schoenfeld is now working on a project that aims to help lawmakers, interest groups, and reform advocates create the conditions necessary to substantially reduce incarceration.

## TRACKING 25 YEARS OF RACIAL DISCRIMINATION IN HIRING

According to a meta-analysis by IPR sociologist **Lincoln Quillian** and his colleagues, the rate of hiring discrimination against African Americans has not changed in 25 years. Whites received on average 36 percent more interview callbacks than African Americans with equal job qualifications and 24 percent more callbacks than Latinos. Quillian's research was picked up by numerous media outlets, such as CBS News, the Wall Street Journal, CNN, and Forbes. In a Harvard Business Review column,



Lincoln and his colleagues write that they believe the results provide a “strong rationale” for affirmative action policies and continued anti-discrimination laws.

## INVESTING IN SCHOOLS TO BREAK THE CYCLE OF POVERTY

IPR labor and education economist **Kirabo Jackson** and Rucker Johnson of the University of California, Berkeley, examine the effects of spending on Head Start programs, K-12 school spending, and the interaction between the two. They establish that the effects of increases in Head Start spending were larger when participants in the program subsequently attended schools that were relatively well-funded as a result of court-ordered reforms. The findings suggest that early investments in the skills of disadvantaged children followed by sustained educational investments over time can help break the cycle of poverty.





IPR sociologist **Christine Percheski** focuses on family demography, economic inequality, and health policy. Her research is particularly concerned with understanding the well-being of American women and families with children.

## RESEARCH TOPICS

- Family characteristics and social inequality
- Health and well-being across the life cycle
- Childhood programs and development
- Effects of school, life, and family contexts

### EXAMINING WEALTH INEQUALITY

In a National Science Foundation (NSF)-funded project, IPR sociologist **Christine Percheski** and Duke University's Christina Gibson-Davis examine wealth inequality among families with children in the United States. In the project's first paper, which is forthcoming in *Demography*, Percheski and Gibson-Davis compare trends from 1989–2013 for wealth levels among “America's dependents”: the elderly and households with children. They discover that the wealth gap between elderly households and households with children has substantially increased over time, growing most among the least wealthy households. In a second paper, Percheski and Gibson-Davis analyze trends in wealth by household structure for the nonelderly population. They find families with married parents have a substantially higher net worth than all other family structures, including married couples without children. Different investment patterns partially explain this, specifically home ownership. Families with married parents are far more likely to own their home, and home ownership is the primary way that people accumulate wealth in the United States.

### INSURANCE FOR IMMIGRANT CHILDREN

Though the percentage of all American children without health insurance has dropped slightly in the last decade, a high percentage of children in immigrant families are uninsured. Many studies have examined the correlation between lack of insurance and health outcomes, but in the *Maternal and Child Health Journal*, **Percheski** and Sharon Bzostek of Rutgers University take a new approach, comparing insured children with their uninsured siblings. In research funded by the Robert Wood Johnson Foundation, they estimate uninsurance rates for children with siblings in immigrant families. They find that 19 percent had no insurance and 33 percent had public insurance—either Medicaid or the State Children's Health Insurance Program (CHIP). In families with mixed insurance coverage, 49 percent of the children had no insurance. Compared with their publicly insured siblings, uninsured children were six times more likely to depend

on the emergency department for care and more than 12 times more likely to not have a usual healthcare source. They note that children born abroad are more likely to be uninsured, so expanding public health insurance to cover more children in immigrant families will likely improve children's access to healthcare.

### FERTILITY RATES AMONG AMERICAN INDIANS

Since 1990, government statistics show a dramatic decline in the total fertility rates of American Indian and Alaska Native women. Is this decrease due to an actual change in fertility or to differences in who identifies as American Indian and Alaska Native? **Percheski** and Sarah Cannon, a former IPR graduate research assistant now at the University of Michigan, investigate in *Demographic Research*. Based on U.S. Census data from 1980–2010, they discover that the decrease can be attributed to a change in fertility patterns. They estimate a total fertility rate of 2.59 births per woman in 1980, which fell to 2.091 births per woman in 2010. The largest declines in fertility are concentrated among younger women. Percheski and Cannon also note that fertility rates among married and unmarried women have remained fairly stable, but the share of women who have ever been married has declined across birth cohorts. They conclude that the lower share of married women is driving the decrease in fertility.



MESMIN DESTIN, CHAIR

This interdisciplinary program combines the interests of IPR faculty studying the ways in which social programs, policies, and contexts affect the lives of families and children from birth to young adulthood. Many faculty share common interests with scholars in IPR's research programs on Poverty, Race, and Inequality; Social Disparities and Health; and Education Policy—particularly in studying the impact of public policies on America's poor.



IPR developmental psychologist Lindsay Chase-Lansdale (right) discusses her work on two-generation programs for both parents and their children with IPR psychologist Sandra Waxman, an expert in linguistic and cognitive development.

### MOTHER-CHILD INTERACTIONS

IPR developmental psychologist **Sandra Waxman** is continuing to work among the Wichí, a remote indigenous population in Argentina's Chaco rainforest. In a longitudinal investigation, Waxman is examining mother-child interactions from infancy through age 3. The Wichí are a unique research population, as the Wichí language is intact, unlike in most indigenous groups, and children learn it from infancy. This population also presents an opportunity to examine how interactions with the natural world influence cognition: Due to their remote setting, Wichí children have more opportunities to connect with nature than children who are typically studied. Waxman hopes this first-of-its-kind study will broaden the empirical research base on the intersection between core cognitive capabilities and the shaping role of the environment. Waxman is the Louis W. Menk Professor of Psychology.

### LINKING LANGUAGE AND COGNITION

How do infants begin to understand language? **Waxman** and IPR graduate research assistant **Danielle Perszyk** outline the evidence about the early links between language and cognition in the *Annual Review of Psychology*. They explain that even before infants can recognize the sound of their own names, they have begun to link language and cognition. Within the first several months of life, infants prefer the sound of human language over almost any other sound. Waxman discovers that listening to language also promotes fundamental cognitive capacities, such as the ability to form object

categories and learn abstract rules. Waxman explains that this is key: If listening to human speech boosts infant cognition and language development, then infants who hear little of it are at a disadvantage not only in language skills, but in fundamental cognitive capabilities.

### CHILDREN'S BIOLOGICAL COGNITION

Children's environments can influence how they think about the natural world, according to **Waxman's** findings in the *Journal of Cognition and Development*. In a NSF-funded study of both urban and rural Native American children, as well as urban non-Native American children, Waxman

examines how 4-year-olds played with a forest diorama. She finds that all of the children actively engaged with the diorama in both realistic and imaginative play, and Native American children talked at least as much as the non-Native American children—contradicting the widespread belief that Native American children are less talkative and have smaller vocabularies. Waxman also discovers that Native American children, whether residing in an urban or rural environment, were more than twice as likely as non-Native American children to take an animal's perspective while playing. The study highlights the powerful role a child's environment can have on their thinking, and it demonstrates the value of expanding research methods for assessing young children's biological cognition.

### TWO-GENERATION PROGRAM EFFECTS

IPR developmental psychologist **Lindsay Chase-Lansdale**, the Frances Willard Professor of Human Development and Social Policy, is continuing her work on *CareerAdvance*, a two-generation program that recruits parents of children enrolled in Head Start into a healthcare workforce training program. With developmental psychologist and IPR associate **Terri Sabol** and IPR research associate professor **Teresa Eckrich Sommer**, Chase-Lansdale uses a quasi-experimental design to examine the intervention's effects. Compared with other parents of Head Start children, the parents who enrolled in *CareerAdvance* had significantly higher rates of certification and employment in the health sector.

Enrolled parents also reported stronger career identity, and their psychological well-being increased, as measured by reported self-efficacy and optimism. Parents in the CareerAdvance program did have lower earnings over the course of the year, but they did not differ from the other parents in reports of material hardship or stress. According to the researchers, this study, supported by the Administration for Children and Families, provides a foundation for testing and scaling up new two-generation interventions. The researchers have also received funding from the Robert Wood Johnson Foundation to study a new model program in Massachusetts that focuses on formerly incarcerated fathers, mothers, and their children.

### **COSTS AND BENEFITS OF TWO-GEN PROGRAMS**

Is a two-generation (two-gen) program that offers Head Start for children and career training for their parents a cost-effective way to boost outcomes? **Sommer, Sabol, Chase-Lansdale**, and IPR postdoctoral fellow **William Schneider** examine average benefit-cost ratios in *RSF: The Russell Sage Foundation Journal of the Social Sciences*. The researchers estimate the two-year workforce development program, based on the CareerAdvance model, costs \$13,955 per person. This includes tuition, career coaching, conditional cash incentives, and six months of employment services. The total per participant benefit is estimated at \$17,913 within the five years of beginning the program, based on the higher salary participants receive with career certification. The study finds that such a two-generation model is likely to break even on its investment after five years and have an eight-fold return on investment after 10 years. The researchers call for further model testing of two-generation programs, with the goal of achieving the greatest anti-poverty benefits for children and parents at the lowest cost. Other institutions are now starting research based on the team's work. Chase-Lansdale presented at the launch of Cornell University's Project 2Gen, which is developing partnerships with community, state, and national organizations and government agencies to support parents and children simultaneously.

### **INCREASING HEAD START ATTENDANCE**

**Sommer, Sabol**, and **Chase-Lansdale** examine an innovative approach to increase Head Start attendance by promoting parents' social capital. The program pairs parents with children enrolled in the same classroom who also live near one another. The researchers find that after one school year, paired parents had higher social capital, or more people in their social network. They were also

more willing to ask for help from other parents. While the program did not increase children's attendance overall, it did improve attendance in winter, when average attendance typically dips below 80 percent. In the *Journal of Research on Educational Effectiveness*, the researchers note that even a modest increase in attendance is meaningful for early childhood education programs, giving students exposure to the academic, social, and developmental programming they need to advance.

### **ASSESSING PARENTAL DISCIPLINE**

Understanding how harsh parenting increases a child's risk of mental illness is key to prevention. This requires nuanced methods that capture the variations in perception and experience among diverse families. The Family Socialization Interview-Revised (FSI-R) is one available method. It uses a semi-structured interview to characterize methods of parental discipline used with young children. In *Prevention Science*, IPR clinical and developmental psychologist **Lauren Wakschlag** and her colleagues test the FSI-R in a diverse, high-risk community sample of 386 mothers and their 3- to 6-year-old children. Their findings support the FSI-R's reliability and validity and suggest the interview could be a valuable complement to self-report and observational approaches. In particular, the test proved better than other methods at showing how harsh parenting is associated with children's depressive symptoms. Wakschlag and her colleagues note that information about how parents discipline young children on a day-to-day basis might prove valuable for programs that are designed to identify, target, and modify parenting behaviors. The research was supported by the National Institute of Mental Health.

### **EARLY CHILDHOOD DISRUPTIVE BEHAVIOR**

**Wakschlag** continues to investigate how child disruptive behavior is associated with mental health. In *The American Journal of Psychiatry*, she and her colleagues review the evidence on irritability and callous behavior, two core examples of early disruptive behavior. Both irritability and callous behavior can be reliably detected in young children, predicting developmental impairments in multiple systems. Both are also linked to specific changes within the brain: Irritability is associated with disruptions in prefrontal regulation of emotion, and callous behavior is tied to abnormal fear processing. The researchers recommend that early childhood disruptive behavior be incorporated into the *Diagnostic and Statistical Manual of Mental Disorders*



IPR associate Ellen Wartella (standing), a communications studies researcher, reviews research results with Elizabeth Diamond (center), an IPR summer undergraduate research assistant, and communications researcher Alexis Lauricella.

as a neurodevelopmental condition. This could serve as the foundation for prevention efforts designed to prevent children from developing chronic mental disorders.

#### EFFECTS OF HAVING A DISABLED SIBLING

How does having a disabled sibling influence a child's cognitive development? In an IPR working paper, IPR economists **David Figlio** and **Jonathan Guryan**, with IPR research associate **Krzysztof Karbownik**, are comparing the school outcomes of first- and second-born siblings who have a younger, disabled sibling with those in families where the third child is not disabled. They discover that when the youngest child is disabled, the middle child has a cognitive disadvantage relative to the oldest child when compared with the sibling outcomes in families without a disabled child. This suggests that, in addition to effects on all the children in a household with three children and the youngest disabled, the middle child will experience additional, negative effects from having a younger, disabled sibling. The researchers also provide evidence suggesting that the sibling spillovers are at least in part due to differences in how much time parents spend with each child and how much money they have to spend on them. Parents with a disabled child who requires additional attention will have fewer resources to share with their other children. Figlio is the Orrington Lunt Professor of Education and Social Policy and of Economics.

#### FOOD MARKETING TO CHILDREN

Food companies are marketing less to children online, which advocates consider a win in the fight against childhood obesity. Websites that are aimed at children, however, commonly feature games promoting unhealthy foods, according to a recent study by communication studies researcher and IPR associate **Ellen Wartella**. In *Health Communication*, Wartella and her colleagues zero in on how food companies are marketing to kids online, and what this might mean for children's eating habits. With support from the NSF, the researchers conducted a content analysis of 95 brand websites, discovering that games were a common feature in the 15 websites aimed at children.

Almost half of these "advergames" included companion advertisements bordering the game, such as a McDonald's logo, and had the primary goal of manipulating pieces of food. Previous research has shown these advergames to be even more effective than other forms of child-directed advertising, making them particularly worrying. In addition, brands used these games to promote the most unhealthy foods in the study, compared with other tactics such as static pictures. Wartella and her colleagues recommend further research on advergames. They explain that with a stronger evidence base, advocates can call for more detailed policies regulating the use of such gaming features. Wartella is the Sheikh Hamad bin Khalifa Al-Thani Professor of Communication.

#### MONITORING CHILDREN'S INTERNET USE

Many parents worry about their children's use of technology, but they may lack either information or the tools to control their children's home internet use. IPR economist **Ofer Malamud** designed and implemented a set of randomized interventions among 7,700 families in Chile to test how these alternative factors affected parents' ability to monitor their children. One group of parents received weekly messages containing specific information about their children's internet use. Households receiving these messages had a 6–10 percent lower intensity of internet use compared with households in a control group that received only generic messages. The effect persisted in the weeks and months after the intervention ended,

suggesting that the temporary interventions led to permanent changes in children's internet use. Another group of parents received weekly messages offering help installing parental control software, but Malamud did not find a difference in internet use between these households and the control group. Malamud notes that the absence of impacts for this group might reflect the obstacles low-income parents face in implementing technological solutions for monitoring and supervising their children.

### THE EFFECTS OF VIOLENT VIDEO GAMES

Are violent video games related to aggressive behavior and delinquency? IPR education researcher and statistician **Larry Hedges** joined a task force convened by the American Psychological Association to examine the existing literature. Looking at studies published from 2009–13, the researchers note that violent video game exposure is associated with increased aggressive behavior, desensitization to violence, and decreased empathy. These results held true across both experimental and non-experimental studies and converged across methods and samples. Some research also demonstrated that the adverse effects of violent video games only lasted a short period of time. In *American Psychologist*, the task force concluded that playing violent video games is a risk factor for adverse outcomes. However, there were not sufficient studies to examine a potential link between playing violent video games and delinquency or criminal behavior. Hedges is the Board of Trustees Professor of Statistics and Social Policy and of Psychology.

### PARENTING AND CHILD HEALTH

Research shows that fathers tend to have more decision-making power than mothers, but mothers tend to focus more on children's well-being. If this is the case, should policies aimed at improving children's welfare target mothers or fathers? In the *American Economic Review*, IPR economist **Seema Jayachandran** examines village-level parenting classes for mothers to similar classes for fathers in Uganda. The classes covered prenatal nutrition, safe water and sanitation practices, and preventive healthcare for infants. Jayachandran shows that mothers attended the classes more regularly than fathers and were more likely to put what they learned into practice. This suggests mothers are a promising target for child health interventions.

### THE ALL-OR-NOTHING MARRIAGE

Marriages today are very different from those of the past. In his book, *The All-or-Nothing Marriage: How the Best Marriages Work* (Dutton, 2017), social psychologist and IPR associate **Eli Finkel** explains how today's marriages are more focused on self-discovery and personal growth. However, building a marriage that meets modern expectations has become more difficult. Even though spouses are now less dependent on marriage for basic survival than in the past, partners expect each other to fulfill more roles than ever—for example, confidant, sexual companion, best friend, and co-parent. This places marriages at risk for disappointment. Finkel notes that marriages have proven particularly problematic for

low-income couples: People without a college degree are less likely to marry and more likely to divorce. Lower-income couples also report less satisfying marriages. There is bright news, though: Finkel argues the best marriages today are flourishing as never before, as people find greater personal fulfillment with their partners. He reviews the latest research studies to identify the ways in which more people can seek to enjoy such deeply fulfilling marriages.



Social psychologist and IPR associate Eli Finkel (left) spoke about his recent book, *The All-or-Nothing Marriage: How the Best Marriages Work* (Dutton, 2017) with author, journalist, and advice columnist Dan Savage on September 26 in Seattle.



IPR development economist **Seema Jayachandran** focuses on health and gender in developing countries. One of her current projects examines gender-discriminatory attitudes among adolescents in India.

## RESEARCH TOPICS

- Economic opportunity and growth
- Poverty and income inequality
- Class, gender, and social dynamics
- Affirmative action laws and their effects
- Race, interracial relations, and prejudice

### CHANGING GENDER ATTITUDES IN INDIA

IPR economist **Seema Jayachandran** is examining gender-discriminatory attitudes among adolescents in India. She is assessing an intervention aimed at eliminating these attitudes in 314 secondary schools in the Indian state of Haryana. It has one of the most skewed sex ratios in the world, with just 914 females per 1,000 males. Half of the schools in the study were randomly assigned to receive the two-year intervention, in which staff of a human rights nongovernmental organization facilitated classroom discussions about gender equality, while the other half did not receive the intervention. The researchers hypothesize that by getting adolescents to think about and discuss the human rights and economic rationales for treating women equally to men, the intervention will decrease gender-biased attitudes and therefore change behavior. Preliminary results show that the intervention successfully changes attitudes about gender. The researchers plan to survey the participants once they become adults to examine if the program increased women's educational attainment and decreased sex-selective abortions.

### JOB NETWORKS DISADVANTAGE WOMEN

Up to 50 percent of jobs are attained through informal channels, including employee referrals. In the *Journal of Labor Economics*, IPR development economist **Lori Beaman** asks whether these informal processes disadvantage women. Beaman and her colleagues use a competitive recruitment drive in Malawi that advertised positions for survey enumerators by posting fliers. After a half-day application process, candidates were asked to refer a friend or relative to apply for the position. Researchers split candidates into three groups: They were either told that they could refer a woman, a man, or a person of either gender. In the National Science Foundation-funded study, Beaman finds that the use of referrals disadvantaged women: When candidates were allowed to choose either gender for a referral, only 30

percent of referrals were women. This is driven by male candidates, with 77 percent of men referring other men when given the choice. In contrast, female candidates did not exhibit a strong preference for either gender. Female candidates also refer people who are not very likely to qualify for positions. Beaman concludes that the role of job networks in the labor market could contribute to persistent gender gaps.

### SOCIAL NETWORKS AND GENDER

Social networks are one way to diffuse information, particularly in areas missing more formal institutions, but does the way that information spreads differ based on which individuals in a network are first targeted?

**Beaman** examines data from a composting study among farmers in Mali. Using data from 52 villages, she finds the spread of information decreases with social distance, or how socially close or far apart the member of one social group is to members of another. This particularly disadvantages women, who are not as connected within many social networks. The results caution that while social networks might enable policymakers to spread information cheaply and efficiently, the choice of whom to target within a network has implications for who will benefit from the information. In particular, targeting the most connected people within a network tends to leave out those on the periphery, including women.

### RELATIONSHIP STATUS DISCRIMINATION IN HIRING

Junior faculty search committees play a vital role in shaping the demographics of university departments and disciplines, but how committees select new hires has received minimal scholarly attention. In *American Sociological Review*, organizational sociologist and IPR associate **Lauren Rivera** examines how relationship status discrimination can lead to gender inequalities in academic hiring. Through a small case study of junior faculty search committees at a large university, she discovers that when selecting hires, search committees actively considered women's—but not men's—relationship status. Committee members assumed that women whose partners held academic or high-status jobs would not move for the open position. However, they rarely discussed male applicants' relationship status and did not consider their female partners as an obstacle to their moving. Rivera concludes that even if women do “everything right,” excelling in school and pursuing demanding work, hiring committees might still treat them as if their careers are secondary to those of their partners and exclude them from top jobs.



IPR Director Diane Whitmore Schanzenbach, an economist, co-edited a new book that proposes evidence-based reforms to increase women's participation in the labor force.

### SENATE TESTIMONY ON SNAP

Economist and IPR Director **Diane Whitmore Schanzenbach** testified before the Senate Agriculture, Nutrition, and Forestry Committee in a hearing to discuss nutrition programs covered by the 2018 Farm Bill. She discussed what current research, including her own, says about SNAP's benefits and offered suggestions for improvements in the upcoming bill. She noted that SNAP, which is the nation's largest food assistance program, kept more than 8.4 million people out of poverty in 2014. The program also has economic benefits, with the USDA estimating that every \$5 in new SNAP benefits can generate as much as \$9 of economic activity. Highlighting her own research, Schanzenbach outlined how those who had access to SNAP benefits during their childhoods were 18 percentage points more likely to graduate from high school. They also grew up to be healthier. Schanzenbach called SNAP "a smart public investment that will improve both public health and economic growth." Schanzenbach is the Margaret Walker Alexander Professor.

### THE 51 PERCENT

Over the course of the 20th century, more American women have received college degrees and worked than ever before, adding an estimated \$2 trillion to the U.S. economy. Still, the U.S. economy has room to grow and will only reach its full potential if women are able to fully participate in the labor market, according to a new book that **Schanzenbach** co-edited. In *The 51 Percent: Driving*

### *Growth Through Women's Economic Participation*

(The Hamilton Project, 2017), researchers propose evidence-based public policy reforms aimed at addressing the structural problems in the economy that are holding women back. Schanzenbach and two colleagues contributed the first chapter that traces women's participation in the U.S. labor force since the middle of the 20th century. They demonstrate that the number of women working jumped dramatically between 1962 and 2000, but since then, the growth in women's labor force involvement has stagnated and reversed.

Schanzenbach, Sandra Black of the University of Texas at Austin, and Audrey Breitwieser of The Hamilton Project suggest that U.S. policies and labor-market institutions have played a role in women's labor force participation.

### CHANGING GENDER STEREOTYPES

How do stereotypes about men and women change over time as the roles of men and women also evolve? IPR social psychologist **Alice Eagly**, who holds the James Padilla Chair of Arts and Sciences, and her colleagues examine changes in stereotypes in Ghana, where women are increasingly attending school and participating in the labor force. For the study in the *Journal of Cross-Cultural Psychology*, 150 participants from a Ghanaian university answered questions about whether a man or woman would be more likely to have specific characteristics. The researchers also estimated the percentages over time of men and women in roles that were female-dominated, such as a flight attendant or nurse, or male-dominated, such as a manager or lawyer. Eagly and her co-authors discover that participants were less likely to consider roles as inherently "male" or "female" in the present day, compared with what they believed people thought in the past. They observed the same trend for personality traits, with participants assigning women more traditionally masculine traits in more recent years and the future. Eagly and her colleagues note that expectations about the future can become reality as men and women engage in new social roles.

### DEFINING GENDER IDENTITY

How do people define their gender identity, and how much of that identity is due to nature versus nurture? **Eagly** and Wendy Wood of the University of Southern California review the evidence. They note that a great deal of children's socialization involves gender, with children learning what to expect of men and women from both observation and direct experience. As children mature, they begin to form ideas of gender roles based on the division of labor between the sexes. These stereotypes

promote conformity in both men and women, and they form the basis for gender identities. Eagly and Wood note that the division of labor, which often informs stereotypes, is itself informed by biology. Each sex's unique physical attributes—including men's greater size and women's capacity for childbearing—are often tied to typical roles. However, as societal changes have decreased childbearing and revolutionized work so that it does not typically prioritize physical strength, the gender identities of men and women have partially converged. The researchers note these changes reflect a cascade of intertwined biological and social processes.

### BUILDING IDENTITIES

How do children build their identities? IPR developmental psychologist **Onnie Rogers** is examining the development and intersectionality of racial and academic identities, as well as gender and sexuality, among African American youth attending a public all-girls high school. She is also investigating the associations between identity and psychosocial well-being, as well as the implications for academic success. Rogers notes that African American girls are disproportionately expelled from school and exposed to psychological and physical violence. The project has the potential to inform interventions to improve mental health and well-being, in addition to the practices and policies of schools to support development.

### STEREOTYPES AND IDENTITY DEVELOPMENT

In further work, **Rogers** is seeking to understand how racial and gender identities intersect, as well as how stereotypes impact identity development. She gathered primary data from 2013–16, using in-depth interviews, survey measures, and experimental techniques. With a sample of 240 children aged 7–14 at predominantly low-income public schools, Rogers is analyzing how children speak about and make sense of social groups, including race, gender, academics, and athletics. She asked the children about their thoughts on race and gender, identity and self-perceptions, school and learning, peers and friendships, and future aspirations. The ongoing qualitative analysis is focused on how the content of children's identity narratives changes over time and how their understandings differ across social identities. In addition, Rogers is exploring the relationship between multiple identities and stereotypes. For example, she examines how children understand what it means to be African American, what it means to be a boy, and what it means to be an African American boy.

### HOW MANY RACISTS?

How do different factors work together to shape an individual's experience of race? IPR social demographer **Quincy Thomas Stewart** is using agent-based modeling for his forthcoming book, "How Many Racists? How Everyday People Contribute to a System of Inequality." Stewart uses a computational simulation to examine racial inequality from a dynamic perspective, specifically investigating the social dynamics that lead to the emergence and maintenance of racial inequality. He also examines the history of racial inequality from 1865–1965, as well as the social organizations involved in maintaining inequities between whites and African Americans. Stewart finds that a large number of racists is not needed to maintain institutional inequalities, as biased social dynamics are also at play. People who do not expressly act or talk in a racist manner also learn subtle prejudices that can contribute to racial inequality. The results underscore the need for a broad, multifaceted policy approach to eradicate racial inequality. As Stewart notes, policies that strictly focus on preventing discriminatory action among individuals will miss the unique structural components of inequality.

### SKIN TONE'S RELATION TO MORTALITY

Is skin tone in African Americans and whites related to mortality? **Stewart** uses data from the 1982 General Social Survey, linked to the National Death Index until



**JAMES ROSENBAUM, CHAIR**

In the research program on Poverty, Race, and Inequality, IPR researchers look at various aspects of these three issues and their consequences for populations in the United States and other nations. The researchers' examinations often overlap with other IPR programs, such as Urban Policy and Community Development; Social Disparities and Health; and Child, Adolescent, and Family Studies.



Following an IPR talk by economist Christopher Udry (standing, right), development economists Dean Karlan, Cynthia Kinnan, Lori Beaman, and IPR Director and economist Diane Schanzenbach review the evidence for a multi-faceted program that seeks to boost the incomes of extremely poor households.

2008. He finds that observed skin tone is a significant determinant of mortality among African Americans. Light-skinned blacks had the lowest mortality hazards among African Americans, while those with medium- and dark-brown skin experienced significantly higher mortality. These results differed by education: Skin tone disparities are large among African Americans with at least a high school education, but not significant among those with lower education levels. This reveals that the nuanced social experiences of African Americans with different observed skin tones markedly change the experience of racial inequality. Stewart calls for further research on the social processes and biological mechanisms that connect skin tone to mortality outcomes in order to discover policies that might help mitigate the disparity.

### RACE AND COLLEGE ATHLETICS

How does race affect student-athletes in college? In a series of IPR working papers, IPR political scientist **James Druckman** investigates aspects of race for both coaches and players. One study examines coaches' beliefs about athlete protests, such as kneeling for the national anthem, within the NCAA. Among 800 college coaches from a variety of sports and institutions, African American coaches were 40 percent more supportive of anthem protests and 26 percent more likely to believe that players genuinely care about the issues they protest. In another project, Druckman conducts a vignette survey experiment about NCAA medical staff to explore

perceptions of an injured student-athlete—for example, asking respondents to gauge how likely it is that a student-athlete will follow medical recommendations. The researchers find little evidence of bias, although related work by Druckman finds that a majority of respondents view African Americans as having a greater tolerance for pain than white athletes—but only when the African American athletes come from less privileged social backgrounds. Druckman is the Payson S. Wild Professor of Political Science.

### THE ORIGINS OF AFFIRMATIVE ACTION

As debate over affirmative action continues, IPR sociologist **Anthony Chen** is working to chronicle its social, political, and intellectual origins in college admissions. With New York University's Lisa Stulberg, Chen is completing a book manuscript that illustrates how affirmative action originated as college and university leaders drew inspiration from the civil rights movement. These leaders also sought new ways to racially integrate the Northern, Midwestern, and Western universities over which they presided in the early 1960s. Through extensive archival research, the book will help to clarify the circumstances under which affirmative action emerged and developed in the United States. Chen hopes that having a clear understanding of the past will help policymakers make sound decisions about affirmative action policy today—and in the future.

### DIVERSIFYING THE TEACHER WORKFORCE

Can hiring guidelines increase the share of African American teachers? In an IPR working paper, former IPR graduate research assistant **Cynthia (CC) DuBois** and **Schanzenbach** examine a 1969 court-ordered hiring mandate in Louisiana's Tangipahoa Parish, which was finally enforced in 2010. They find the policy significantly increased the share of African American teachers in the district, which rose 2 to 5.6 percentage points in the five years after the policy's enactment. The policy also decreased the student-teacher representation gap, measured as the difference in enrollment share among African American students and teachers. DuBois and Schanzenbach outline how this increase in the share of African American teachers held across both predominantly white and predominantly African American schools in the district. They call for further research into the potential effects of "soft" versus "hard" affirmative action policies to diversify the teacher workforce. DuBois passed away in January 2018 as a result of brain cancer.

### OCCUPATIONAL LICENSING FOR MIGRANTS

Researchers typically argue that occupational licensing—such as that required for lawyers or even hair stylists—limits entry into an occupation due to the substantial barriers involved, including time and cost. However, IPR sociologist **Beth Redbird** finds that occupational licensing can actually make certain occupations more accessible to immigrants. Using a dataset of occupational licensing enactments between 1994–2012, paired with nationally representative data from the Current Population Survey, Redbird finds that licensing creates institutional mechanisms and publicizes uniform standards for entry into an occupation. Licensing is particularly helpful for migrants arriving as adults who have already completed their education in their home country, as well as for those who recently entered the United States and do not have the social network to follow typical informal paths to enter a chosen field. In related work in the *American Sociological Review*, Redbird examines more than 500 occupations in all 50 states to determine whether licensing drives up prices by limiting the number of workers who can enter an occupation. With funding from the U.S. Department of Labor's Employment and Training Administration, she finds that licensing actually increases access—in particular helping women get jobs—and has no effect on wages.

### NATIVE AMERICAN INEQUALITY

In the first wide-scale examination of Native American inequality in 30 years, **Redbird** is examining the ways in which changing tribal structures and processes are affecting well-being and inequality. Since the last study of this scale, there have been multiple important developments across Native American lands and tribes, including gaming, energy projects, expanded health and social services, and the advent of tribal colleges. Redbird is using the Decennial Census, American Community Survey, Current Population Survey, and General Social Survey, paying particular attention to whether shifts in inequality are seen between different tribes or between members of the same tribe.

### THE IMPACT OF SAVINGS GROUPS

Some nonprofit organizations train villagers to create and lead microfinance programs that save and then lend out the accumulated savings to other members. But do these programs actually work to improve lives? Development economists and IPR associates **Dean Karlan** and **Christopher Udry** use a randomized evaluation across three countries to determine the answer in the *Proceedings of the National Academy of Sciences*. They discover that the promotion of these informal savings groups in Ghana,

Malawi, and Uganda leads to an improvement in household business outcomes, as such programs stimulate investment to extend and expand businesses operated by the households. The informal savings groups also empower women, increasing their access to credit and raising their influence on household decision-making. However, Karlan and Udry do not find evidence that the program changed average consumption or improved food security. Udry is the Robert and Emily King Professor of Economics, and Karlan holds the Frederic Esser Nemmers Chair.

### THE ROLE OF MICROCREDIT

How did India's 2010 "microfinance crisis," in which the state of Andhra Pradesh stopped all microcredit lending, affect the rest of the country? IPR economist **Cynthia Kinnan** and Emily Breza of Harvard University use this "natural experiment" to show how the microcredit crisis rippled throughout the nation, affecting average borrowers via lenders' balance sheets. They illustrate how district-level reductions in credit supply are associated with significant decreases in daily wages, household wage earnings, and consumption. The inability of institutions to finance credit-worthy borrowers outside of the district led to nationwide decreases in lending, consumption, earnings, wages, and agricultural yields. Even those who did not borrow were affected by the fall in wages, suggesting that evaluations that only focus on "likely borrowers" might miss significant impacts.

### THE VALUE OF HEALTH INSURANCE

Since 2008, India's public health insurance has covered the poorest quarter of the population. The Indian government is now considering expanding coverage to include households above the poverty line. To create the most effective policy for nearly 700 million people, it is vital to understand how care-seeking behavior works with and without insurance. In partnership with the government of Karnataka, India, **Kinnan** and fellow researchers from the United States, England, and India are currently conducting a randomized controlled field experiment to measure the effects of expanding the free inpatient public health insurance plan called Rashtriya Swasthya Bima Yojana (RSBY). RSBY is centrally funded, state-run, and provides hospitalization insurance to households below the poverty line. Preliminary results show that demand for low-cost insurance is significant: 78 percent of households take up RSBY when it is free, 71 percent buy the insurance when given a cash transfer equal to its cost, and 60 percent buy it even without receiving a cash transfer. The researchers are continuing to analyze the health and financial effects of access to the program.

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IPR psychobiologist Emma Adam has found that discrimination is associated with chronic stress, with adolescent experiences having particularly strong effects on adult stress biology.

## RESEARCH TOPICS

- Social disparities, stress, and health
- Intergenerational perspectives on health disparities
- Early environments and health trajectories
- Biomarker development and deployment

### DISCRIMINATION AFFECTS STRESS, HEALTH

Does being exposed to discrimination affect health? IPR health psychobiologist **Emma Adam** and her colleagues are examining 20 years of data, gathered from adolescence through young adulthood, in a project with funding from the National Institutes of Health (NIH). The data include exposure to race-related stressors, as well as measures of family functioning, racial and ethnic identity, and coping. Adam is examining this data with a wide range of stress-sensitive biological measures in young adulthood, including gene expression relevant to the regulation of biological stress. Results indicate that participants with higher perceived discrimination have lower overall cortisol levels and flatter cortisol diurnal rhythms, which are associated with chronic stress. Experiences of discrimination during adolescence have particularly strong effects on adult stress biology. Adam also finds that histories of discrimination help to explain racial and ethnic differences in cortisol rhythms. However, the presence of a strong ethnic and racial identity in adolescence, and particularly in early adulthood, is associated with better-regulated stress biology and higher levels of academic attainment.

### SOCIOECONOMIC STATUS AND ASTHMA

IPR health psychologists **Edith Chen** and **Greg Miller** are leading work on the intergenerational health effects of economic hardship. With IPR faculty adjunct **Madeleine Shalowitz** of NorthShore University HealthSystem, the researchers examine whether parents' childhood socioeconomic status (SES) is associated with asthma in their children. The NIH-funded study of 150 children aged 9–17 finds that those with parents who grew up in households with lower SES were more likely to have poorer asthma control, compared with those whose parents grew up under better socioeconomic conditions. The researchers focus on one potential explanation: family relationship stress. They note that parents who grew up in low-SES households were more likely to experience frequent family conflict and harsh parenting as children, and they

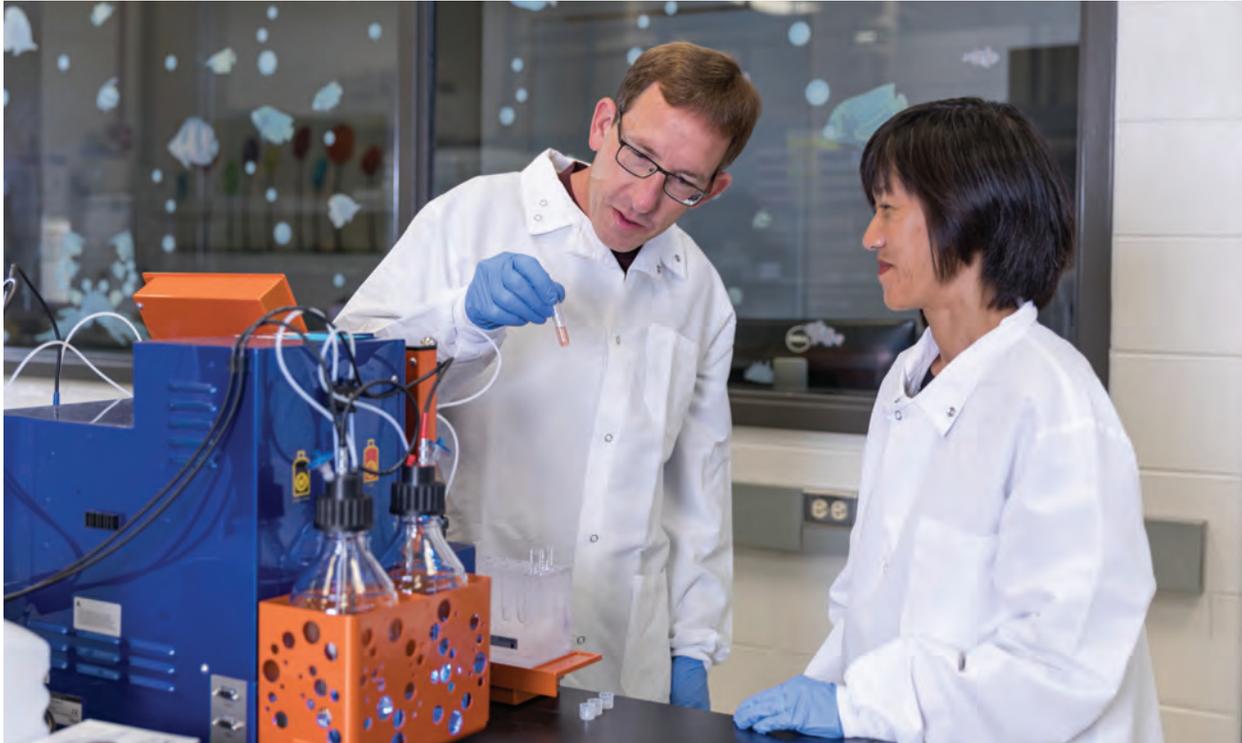
were also more likely to have less supportive and trusting relationships with their own children. Greater family stress is, in turn, associated with poorer control of childhood asthma. Chen, Miller, and their colleagues suggest that efforts to ameliorate asthma disparities need to go beyond improving families' current socioeconomic circumstances to addressing children's family environments and their potential effects across generations. The results are published in the *Journal of Allergy and Clinical Immunology*. Chen is the John D. and Catherine T. MacArthur Professor of Psychology, and Miller is the Louis W. Menk Professor of Psychology.

### HEALTH EFFECTS OF THE GREAT RECESSION

Some of the highest rates of illness and death from cardiovascular disease in the United States are found among lower-income African American communities in the rural Southeast. Research suggests this disparity originates early in life, and it might reflect the influence of socioeconomic forces acting on behavioral and biological processes that accelerate the progression of cardiovascular disease. **Miller** and **Chen** and their University of Georgia colleagues test this hypothesis in the *Journal of the American Heart Association*. The researchers followed 328 African American youth from rural Georgia before and after the Great Recession. They measured the youths' glucose levels, blood pressure, and waist circumference, all of which increase the risk for heart disease, stroke, and diabetes. The researchers discover that the prevalence of these risk factors, or metabolic syndrome, varied depending on how the Great Recession affected families' economic status. Metabolic syndrome prevalence was lowest for youth whose families continued to have low incomes throughout the recession, but it rose to more than 21 percent for youth in families who slipped from lower-income to poverty status during it. The highest rate of 27.5 percent was among youth whose families began the recession in poverty and sank even deeper into it afterwards. The results suggest that broader economic forces shape cardiometabolic risk in young African Americans, potentially exacerbating disparities already present. The NIH supported the research.

### THE HEALTH COSTS OF FAMILY STRESS

Family stress can lead to worse health outcomes, including for adolescents who experience many demands in their family life. **Chen** investigates under what circumstances family demands might have a physiological cost. In *Health Psychology*, she looks at two potential moderators between frequency of family



IPR health psychologists Greg Miller and Edith Chen, shown here in their lab, are investigating how socioeconomic status affects health, including the risk for cardiovascular disease and metabolic syndrome.

demands and adolescents' inflammatory profiles: the closeness of the teens' relationships with their families and how often teens provided help to their families, such as doing chores or caring for siblings. For the study, 234 youth aged 13–16 filled out a daily diary and were interviewed about their family relationships. Chen finds that more frequent demands from family predicted higher levels of inflammation. Family closeness moderated this relationship, as frequent demands proved to be more physiologically detrimental when adolescents were close to their families. How frequently the teens provided help also moderated the relationship, with more frequent demands predicting worse inflammatory profiles when adolescents helped out more with the family. The results build on previous work to show how family pressures can affect health.

### **METABOLIC HEALTH DISPARITIES**

A quarter of the world's population has metabolic syndrome, which includes high blood pressure, high blood sugar, and high cholesterol. Researchers have shown that being lower on the socioeconomic ladder is associated with a higher risk for metabolic syndrome. In *Psychosomatic Medicine*, Miller and Chen examine how economic disadvantage early in life—even if an individual later moves up the socioeconomic ladder—

is related to a higher risk of metabolic syndrome in mid-adulthood. They determine that early-life SES affects risk. On average, individuals with low childhood SES were nearly twice as likely to meet the criteria for metabolic syndrome at midlife than those with high childhood SES. However, the researchers do not find a significant effect for SES at the time when metabolic syndrome is measured. Miller and Chen suggest that early childhood might be an opportune time to target interventions aiming to reduce the risk of metabolic syndrome across a person's lifespan.

### **ECONOMIC HARDSHIP AND BIRTH OUTCOMES**

Previous research suggests that the health consequences of economic hardship can be passed across generations, with some of these disparities thought to be passed to children during pregnancy. In *Brain, Behavior, and Immunity*, Miller tests this hypothesis by investigating whether women exposed to economic hardship during childhood show higher rates of adverse birth outcomes. With Adam, IPR anthropologist Thomas McDade, and IPR associate and obstetrician Ann Borders, Miller finds that mothers who experience economic hardship in childhood were more likely to deliver their babies preterm. Their babies also weighed less at birth, were more likely to be small for their gestational age, stayed in

the hospital longer, and were more likely to be admitted to a special care nursery. The researchers also identify multiple behavioral and biological mechanisms associated with childhood hardship and pregnancy outcomes. For example, childhood disadvantage predisposes women to express higher levels of interleukin-6 during pregnancy, which accelerates gestation and can also lead to premature labor. McDade is the Carlos Montezuma Professor of Anthropology.

### REDUCING PRENATAL STRESS

**Lauren Wakschlag**, an IPR clinical and developmental psychologist, is seeking to improve trajectories for child neurodevelopment by reducing maternal stress during pregnancy. The “Promoting Healthy Brain Project,” which also includes clinical and developmental psychologist and IPR associate **Amélie Petitclerc**, involves a randomized controlled trial with 200 mothers and their babies, following them from the second trimester through the first year of their children’s lives. Wireless wearable health sensors will measure the mothers’ heart rate, and smartphone surveys will measure when mothers are experiencing stress in a typical day. Mothers will receive a one-on-one stress reduction intervention, the “Mothers and Babies” course, in addition to their usual prenatal care. When the heart rate and survey data indicate that mothers need additional support, the project will send extra stress reduction messages and interventions via their smartphones. Researchers will also observe infant neurodevelopmental trajectories at birth, at 6 months, and at 12 months. Their overarching goal is to improve child neurodevelopment by reducing maternal stress in real time.

### PREGNANCY AND INFLAMMATION

IPR biological anthropologists **Christopher Kuzawa** and **McDade** are examining pregnancy as a key moment of inflammatory regulation. The researchers measure C-reactive protein as an indicator of maternal inflammation during pregnancy. They find that mothers who have higher levels of C-reactive protein give birth to smaller infants, both in terms of weight and length. This effect was not only seen among mothers with unusually high levels of inflammation, but held across the range of C-reactive protein measures. McDade and Kuzawa’s previous work has discovered that early life experiences influence inflammation in adulthood, and this study points to inflammation as a potential pathway for mothers to pass along their experiences in a way that affects infant health. The research was published in the *Journal of Developmental Origins of Health and Disease*.

### HOW ENVIRONMENTS SHAPE INFLAMMATION

New research, led by IPR biological anthropologists **McDade** and **Kuzawa** with IPR health psychologist **Miller**, underscores how environmental conditions early in development can cause inflammation in adulthood—an important risk factor for a wide range of diseases of aging, including cardiovascular diseases, diabetes, autoimmune diseases, and dementia. Drawing on prior research that links environmental exposures to inflammatory biomarkers, the study, published in the *Proceedings of the National Academy of Sciences*, breaks new ground in helping to understand how our bodies “remember” experiences in infancy and carry them forward to shape inflammation and health in adulthood. Using data from a large birth cohort study in the Philippines, with a lifetime of information on the study participants, the researchers find that nutritional, microbial, and psychosocial exposures early in development predict DNA methylation (DNAm) in nine genes involved in the regulation of inflammation. The research suggests that altering aspects of the nutritional, microbial, and psychosocial environment early in development can leave lasting marks on biology, with the potential to help reduce levels of chronic inflammation in adulthood. The NIH and the National Science Foundation (NSF) supported the work.



**THOMAS MCDADE, CHAIR**

IPR’s Cells to Society (C2S): The Center on Social Disparities and Health continues to expand its scope of activities to understand how social, economic, and cultural contexts affect physical and mental health, as well as cognitive achievement, at the population level. Faculty research overlaps with other IPR research program areas, including Child, Adolescent, and Family Studies; Poverty, Race, and Inequality; and Education Policy.

## SOCIAL DISPARITIES AND HEALTH

### SOCIAL STRATIFICATION, STRESS, AND HEALTH

**McDade** is investigating the links among social stratification, stress, and health. He is continuing research on the impact of financial debt on both mental and physical health. In 2013, McDade was part of a study that was the first to examine the effect of debt on physical health. The results, published in *Social Science and Medicine*, found that a higher debt-to-asset ratio was associated with higher perceived stress and depression, higher diastolic blood pressure, and worse self-reported general health. A new project, with funding from the National Institute of Child Health and Human Development, will examine how housing and neighborhood quality affect child health. Both studies build on McDade's recent analyses of data from the National Longitudinal Study of Adolescent Health to investigate how socially patterned environments in infancy contribute to social disparities in adult health outcomes.

### EARLY LIFE INFECTION AND ADULT HEALTH

Those who suffer many infectious diseases while growing up have shorter lifespans, suggesting the possible lingering influences of early life exposures. Exactly how early life infection influences later illness and death is unknown, however. In the *American Journal of Human Biology*, **Kuzawa** examines whether the shortening of telomeres could be a partial answer. Telomeres—the repeating DNA sequences at the ends of chromosomes—are an important molecular marker of aging. Using data from the Cebu Longitudinal Nutrition and Health Survey in the Philippines, Kuzawa and his collaborators link adults' blood telomere length to early life data on infections. They find that a higher burden of diarrheal illness in infancy predicts shorter adult telomere length in adults. This association was strongest for infections experienced from 6–12 months, which is when infants are typically weaned off breast milk and start to crawl and walk. This period is the first time pathogens tend to be introduced en masse without the immune-protecting effects of breast milk. Kuzawa's results suggest that telomeres are a pathway by which early life environments and health might influence adult disease.

### BRAIN ENERGY NEEDS IN CHILDHOOD

**Kuzawa** and his colleagues previously discovered that the brain's energy use peaks at 4–5 years of age, requiring twice the glucose that the adult brain needs. This peak in brain energy needs is not due to brain growth, but to a rise in the rate of energy use by neurons, which is temporarily increased during childhood as part of the normal process of learning and brain development. Kuzawa is currently

assessing the feasibility of using a new, noninvasive imaging technique for measuring brain energy use in children as they age. The brain's need for energy at 4–5 years old is so strong that it appears to divert energy from body growth: There is an inverse relationship between body growth and brain energy use during infancy and childhood. Furthermore, the age when brain energy use is greatest is also the age when body growth rate is at its slowest. This suggests that young children's healthy cognitive development might be particularly sensitive to the adverse effects of nutritional stress. Kuzawa notes that new approaches to interventions in young children could optimize healthy brain development.

### FATHERS AND TESTOSTERONE

In previous research, **Kuzawa** has shown that men are biologically attuned for childcare: Becoming a father leads to a drop in testosterone that is believed to help men focus on raising their children. However, less is known about whether this decline in testosterone influences outcomes like relationship stability or child development. With support from the NSF, Kuzawa is addressing these questions using data and samples on 908 men along with their spouses and children. Kuzawa will compare hormone levels with detailed reports of men's familial, professional, and social behaviors, as well as with outcomes related to child well-being and family relationships. In one aspect of this project, Kuzawa's team examined a part of the gene that provides instructions for making the androgen receptor protein, which might influence an individual's "androgenicity." Men with a low androgenic profile are at increased risk of depression, which could change family dynamics such as marriage stability and parenting. In *Hormones and Behavior*, Kuzawa and his colleagues find that men with intermediate androgenicity levels were most likely to be in stable relationships over the study's more than four years. As fathers, they were also more involved with childcare.

### TESTOSTERONE TRANSFER AMONG TWINS

In collaboration with **Kuzawa** and IPR research associate **Krzysztof Karbownik**, IPR education economist **David Figlio** is investigating how female twins are affected in utero when exposed to testosterone from their male twin. The researchers tracked all births in Norway over 10 years, following more than 12,000 twins for more than 30 years. They find that females with a male twin have substantially lower graduation and college attendance rates. They are also less likely to marry, have lower fertility, and have reduced lifetime earnings compared with women with a female twin. These effects persist among women whose

twin died soon after birth, illustrating that the effects are likely due to prenatal testosterone transfer rather than to being socialized with a male twin. The research is the first to address the long-term impacts of testosterone transfer among twins by following a full national population with objectively measured outcomes from the fetal stage into adulthood. Figlio is the Orrington Lunt Professor.

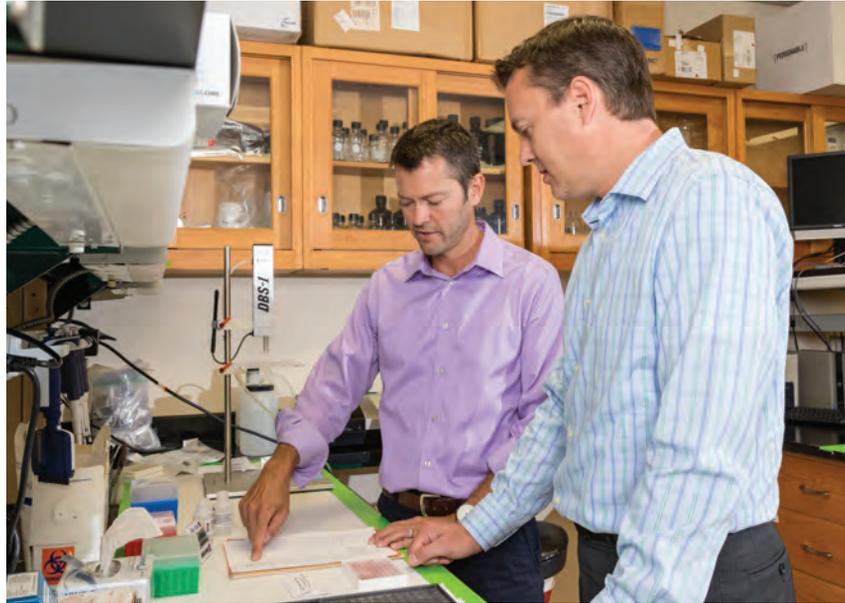
### HOW SLEEP TIMING AFFECTS DIABETES

Research has shown that not getting enough sleep can increase metabolic disease risk. Does sleep timing also affect risk, given the potential impact on circadian rhythms of metabolic function?

Neurologist and IPR associate **Kristen Knutson** investigates whether such a link exists in a study of more than 13,000 Hispanic adults. Knutson and her colleagues discover that going to sleep later is associated with higher estimated insulin resistance, which can contribute to developing diabetes. They also find that other associations between sleep timing and metabolic measures might depend on age. Among participants younger than 36, going to sleep later was associated with a lower body mass index, lower fasting glucose, and lower hemoglobin A1c—all of which are linked to a lower risk of diabetes—but the opposite was true for older participants. Knutson and her colleagues explain in *Sleep* that behavioral interventions addressing sleep timing might add to existing approaches for preventing and managing diabetes, which disproportionately affects Hispanics in the United States.

### BREAST CANCER SCREENING BELIEFS

Cancer is the leading cause of death among Chinese Americans, and breast cancer is the most frequently diagnosed cancer among Chinese American women. Despite this, Chinese Americans have low rates of mammography screening. To investigate Chinese American women's attitudes toward screening and healthcare barriers, health disparities scholar and IPR associate **Melissa Simon** conducted six focus groups among Chinese-speaking adult women aged 45 and older. The women expressed a range of opinions about the



IPR biological anthropologists Thomas McDade (left) and Christopher Kuzawa (right), with IPR health psychologist Greg Miller, have discovered that environmental conditions early in development can cause inflammation in adulthood.

importance of breast cancer screening. Among those who did not believe it was important, reasons included not feeling sick and perceived harm from mammographies. The women also highlighted barriers to screening, including language differences, transportation issues, and not wanting to burden their adult children. Simon and her colleagues suggest in *The Journals of Gerontology* that patient navigators might help improve screening rates by providing interpreter services and making appointment reminder calls. Community health workers might also help meet the health needs of older Chinese American women, as participants' limited knowledge of breast cancer causes and symptoms shows there is a need for more accessible cancer education. Simon is the George H. Gardner, MD, Professor of Clinical Gynecology.

### WEALTH AND HEALTH AMONG HISPANICS

Is there a relationship between wealth and health among Hispanics? IPR associate **Frank Penedo**, a professor of medical social sciences, and his colleagues examine whether there is a link between SES and risk factors for cardiovascular disease in the Hispanic and Latino population. They use data from 4,971 Hispanics and Latinos aged 18–74. The researchers find no overall association between wealth and hypertension, high cholesterol, or obesity. Breaking down the data further, they find more mixed results. Women in the middle of the wealth distribution were less likely to have high cholesterol or be obese. Wealthier Central Americans were less likely

## SOCIAL DISPARITIES AND HEALTH

to be obese while wealthier Puerto Ricans were more likely to be obese. The researchers note that future studies should incorporate more robust measures of wealth to help clarify their results and determine the relationship between wealth and health. Penedo is the Rosewell Park Professor.

### MEXICAN AMERICAN MENTAL HEALTH

Mexican American youth are more likely to experience mental health problems such as depression and anxiety than their white peers. Do the experiences of Mexican American adolescents receiving treatment also differ? IPR anthropologist **Rebecca Seligman** is investigating this using both ethnographic and quantitative methods, examining how culture and ethnicity matter to Mexican American patients, how healthcare providers treat Mexican Americans in mainstream mental healthcare settings, and the experiences and responses to treatment of youth who receive care. In the study that received funding from the William T. Grant Foundation, Seligman seeks to assess which factors most strongly influence quality of care outcomes, including patient satisfaction, adherence to treatment, and retention. The findings have the potential to improve clinical practices and promote better social, emotional, and behavioral outcomes for already disadvantaged Mexican American youth struggling with psychological distress.

### MIND-BODY PROCESSES AND HEALTH OUTCOMES

**Seligman** is also continuing theoretical work on mind and embodiment that seeks to develop a robust model of how people's thoughts, ideas, and cognitive practices influence their health and well-being. She is drawing on research from cognitive neuroscience, as well as anthropology, to inform her work. The project has implications for the development of interventions to improve mental and physical health, highlighting the importance of considering mind-body processes in affecting health outcomes. In December, Seligman participated in a conference on the power of the mind at Stanford University. Invited researchers explored how to apply knowledge about mind-body processes to address inequality.

### IMMIGRATION AND MENTAL HEALTH

The United States is in the midst of a debate about whether or not to deport its estimated 11 million unauthorized immigrants, but the fact that these immigrants are parents to more than 4 million U.S.-born children is often overlooked. A research team including IPR associate **Bernard Black**, the Nicholas J. Chabreja Professor of Law, examines the impact of parents' immigration status on the mental health of their children in *Science*. Black and his

colleagues use Medicaid claims data from Oregon and the effectively random assignment of eligibility for the Deferred Action for Childhood Arrivals (DACA) program, which provides partial legalization, among mothers with birth dates either shortly before or shortly after the June 30, 1981 birth date cutoff in the DACA executive order. They find that children of DACA-eligible mothers had fewer adjustment and anxiety disorder diagnoses. The researchers conclude that parents' unauthorized status is a substantial risk factor for mental health issues.

### BRAIN ACTIVITY AND MENTAL HEALTH

Depression and anxiety are often diagnosed together. Evidence suggests that individuals with depression display reduced activity in the brain's left prefrontal cortex. Do patients with both depression and anxiety also have lower resting-state prefrontal EEG activity? Psychologist and IPR associate **Robin Nusslock** tests women with a history of childhood-onset depressive disorder who either had a current anxiety diagnosis or no current diagnosis, as well as controls with no mental health problems. In *Psychophysiology*, he shows that depressed women without an anxiety diagnosis had significantly lower levels of left prefrontal activity compared with healthy controls and women who had both depression and anxiety. The findings indicate that decreased left frontal activity might be specific to a variant of depression that does not co-occur with anxiety disorders, and that comorbid anxiety suppresses or masks the relationship between depression and prefrontal asymmetry.

### PINPOINTING THE RISK FOR PSYCHOSIS

Psychologist and IPR associate **Vijay Mittal** is working to identify signs of psychosis prior to its onset. In *Schizophrenia Research*, Mittal uses motion energy analysis to test differences between youth at high risk for psychosis and their healthy peers. The video analysis software provides frame-by-frame measures for both head and body movement in terms of total movement, amplitude, speed, and variability. He discovers significant differences in body movement between the groups, with youth at high risk for psychosis showing greater total body movement as well as faster body movements. The high-risk youth also had less variation in body movement compared with participants not at risk. Mittal concludes that motion energy analysis could be a helpful tool in assessing psychosis risk.

### IDENTIFYING THE GENETIC ROOTS OF AUTISM

Autism affects an estimated 1 in 68 children in the United States. Communication studies researcher and IPR associate **Molly Losh** is investigating the genetic roots of

autism to try to identify autism spectrum disorder (ASD) earlier and understand how it is transmitted in families. In the *Journal of Autism and Developmental Disorders*, Losh examines the school test scores of parents of children with ASD. She finds that parents of children with ASD are more likely to show a split between their language and math skills, with one being significantly better than the other. The severity of this discrepancy even predicted the severity of autism in their children. Losh is also extending this work with economists **Figlio** and **Joseph Ferrie**, an IPR associate, to detect a similar split in children. Their results show that those who were good at recognizing letters but struggled with recognizing sounds were 2.5 times more likely to be diagnosed with autism than children who did not show this difference. Losh holds the JoAnn and Peter Dolle Chair in Learning Disabilities.

### MEASURING WATER INSECURITY

With an international team of researchers, IPR anthropologist **Sera Young** is working to develop the first cross-culturally validated scale of water insecurity for households. The scale, which will resemble those already used for food insecurity, will help scientists understand the prevalence and severity of water insecurity in a community and to better study its health impacts. It will also enable measurement of interventions' effectiveness over time and provide better targeting of resources to the most vulnerable populations. The scale's questions cover various aspects of water use, including how frequently anyone in a household has had to drink unsafe water or gone to sleep thirsty in the last month. With funding from several Northwestern institutes and programs, including IPR, Young hosted an international workshop to discuss how to improve ongoing data collection. At the workshop, researchers from 17 universities and six countries also worked to reduce the number of questions on the scale. The researchers are validating the scale in 29 study sites, including India, Samoa, Guatemala, and Ghana, and have completed data collection for more than 3,800 participants. They have received funding from Innovative Methods and Metrics for Agriculture and Nutrition, a research initiative supported by the U.K. Department for International Development.

### FOOD AND WATER INSECURITY IN KENYA

In a NIH-funded study in Kenya, **Young** explored the consequences of food and water insecurity for mothers and their infants. Young and her colleagues enrolled 371 pregnant and lactating women in the Pith Moromo study, some of whom were infected with HIV. The researchers find that food insecurity had a negative effect on child development. Children born to mothers with moderate or severe food insecurity developed more slowly and had lower development scores than children born to mothers with less food insecurity. In related work in Kenya, Young is using her household-level water insecurity scale to assess a range of outcomes linked to water insecurity, including viral load, maternal depression, stress, food insecurity, and cognitive development. Preliminary results show that water insecurity leads to stress and maternal depression, which in turn can lead to poor infant bonding. The research also highlights how water insecurity is tied to food insecurity, with one study participant noting that she can afford to buy either water or food—but not both.

### EDUCATING FARMERS TO ADDRESS STUNTING

Approximately 40 percent of children under age 5 are stunted in Tanzania. Previous research identified issues faced by small farmers that might contribute to this rate of stunting, including poor farmer education. The Singida Nutrition and Agroecology Project is trying to address this through a peer farmer education intervention, which will address agroecology, climate change, nutrition, and gender equality. **Young** is investigating whether the program increases farmers' knowledge of nutrition,



IPR anthropologist Sera Young leads a brainstorming session at a workshop she organized in August for researchers working to create a cross-culturally validated scale of water insecurity at the household level.

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particularly of infant and child feeding practices, and promotes women's empowerment. She also plans to draw on her water insecurity research to explore how water affects agriculture production and the ways in which it mediates gender dynamics within the household.

### INCOME AND COGNITIVE DEVELOPMENT

IPR researchers have cast doubt on a widely-held belief that connects family income with cognitive development. A well-known theory holds that genes play a larger role in brain development for children from advantaged environments than in those from poorer backgrounds. However, **Figlio, Karbownik**, Stanford sociologist Jeremy Freese, and University of Florida pediatrician Jeffrey Roth use matched birth and school records from Florida, finding that family income does not necessarily mitigate the effects of genetics on cognitive outcomes. They note that children from higher socioeconomic backgrounds have better cognitive outcomes on average than those from families with a lower SES, but genetics appear to matter just as much for both groups. The results, published in the *Proceedings of the National Academy of Sciences*, indicate that a full understanding of how genes interact with the environment to influence cognition is more complex and elusive than previously supposed.

### PRESERVING AND RESTORING FERTILITY

Oncofertility specialist and IPR associate **Teresa Woodruff** is making great gains to help preserve women's fertility—and even restore the fertility of women affected by cancer. Woodruff and her team at the Women's Health Research Institute recently developed a miniature female reproductive tract, described in *Nature Communications*. The new 3D technology—called EVATAR—is made with human tissue. It will enable scientists to test new drugs for safety and effectiveness on the female reproductive system instead of using human subjects. It will also help researchers understand diseases of the female reproductive tract, including endometriosis, cancer, and infertility. In another scientific first, Woodruff has developed a functional biosynthetic ovary. After removing a female mouse's ovary and replacing it with a bioprosthetic ovary, constructed of 3D printed scaffolds that house immature eggs, the mouse was able to not only ovulate but also give birth to healthy pups. The mothers were even able to nurse their young. Woodruff and her colleagues' objective for developing the bioprosthetic ovaries is to help restore fertility and hormone production in women

who have undergone adult cancer treatments or those who survived childhood cancer and now have increased risks of infertility and hormone-based developmental issues. Woodruff is the Thomas J. Watkins Professor of Obstetrics and Gynecology.

### HIV/AIDS AND TRANSFORMATION

In her forthcoming book, *Remaking a Life: How Women Living with HIV/AIDS Confront Inequality* (University of California Press), IPR sociologist and African American studies researcher **Celeste Watkins-Hayes** examines how women remake—not just rebuild—their lives after trauma. Watkins-Hayes draws on interviews with more than 100 Chicago women living with HIV/AIDS, as well as her discussions with nationally recognized advocates, to position the AIDS epidemic as a lens to understand how people radically improve their social well-being. She outlines a theory of transformative projects, in which individuals fundamentally shift how they conceptualize, strategize around, and tactically address struggles related to inequality. Watkins-Hayes also traces the unique safety net that has enabled HIV-positive women to launch successful transformative projects. She argues that the HIV/AIDS service and healthcare infrastructure offer important lessons for how advocates and institutions might think about assisting other socially and economically marginalized populations, not just those living with HIV.

### SOCIAL SUPPORT MEDIATES VIRAL LOAD

Having friends and family to turn to has been shown to protect health. Behavioral scientist and IPR associate **Linda Teplin** examines whether this extends to HIV/AIDS among men who have sex with men. In *AIDS Care*, Teplin and her colleagues use longitudinal data from men using antiretroviral therapy enrolled in the Multicenter AIDS Cohort Study between 2002 and 2009. They assess characteristics of social support and the effects of social support on HIV viral load. The researchers discover that men who had higher levels of social support had greater viral load suppression and lower viral load means. However, African American and Hispanic men who have sex with men reported lower social support than their white counterparts. Teplin, the Owen L. Coon Professor of Psychiatry and Behavioral Sciences, explains that interventions to boost social support could particularly benefit men of color who are HIV-positive.

# Regression Results

**Own Effect:** Being a teacher at the 85<sup>th</sup> percentile versus average (estimated in previous years).  
**Peer Effect:** Having all other teachers in same grade and year at the 85<sup>th</sup> percentile versus the average.

	Math Test Score			Reading Test Score		
	1	2	3	4	5	6
	School Fixed Effects			School Fixed Effects		
	Student Fixed Effects			Student Fixed Effects		
	OLS			OLS		
Teacher Effect	0.1268 [0.0031]**	0.1689 [0.0062]**		0.0547 [0.0027]**	0.0785 [0.0061]**	
Mean Teacher	0.0522	0.0604		0.0262		
Peer Effect	[0.0037]**	[0.0076]**				



IPR labor and education economist **Kirabo Jackson** has discovered that investment in Head Start, followed by sustained educational investments over time, can help to break the cycle of poverty.

## RESEARCH TOPICS

- Evaluations of education interventions and programs
- School spending and student outcomes
- Improving academic achievement
- College transitions and persistence

### INVESTING IN CHILDREN AND SCHOOLS

When and where should society invest funds in children to break the cycle of poverty? In an IPR working paper, IPR labor and education economist **Kirabo Jackson** and Rucker Johnson of the University of California, Berkeley, focus on the causal effects of spending on Head Start programs, K-12 school spending, and the effects of the interaction between the two. Rather than rely on test scores to evaluate the effects on children, they used the Panel Study of Income Dynamics (PSID) to look at the educational attainment, adult wages, and the likelihood of adult incarceration of people born between 1950 and 1976. Head Start was launched in 1964 and was rolled out over time in different counties and at differing funding levels. Court-ordered school finance reforms between 1971 and 2010 led to increases in public school funding to correct some of the inequities between school districts due to their varying wealth. Jackson and Rucker establish that the effects of increases in Head Start spending were larger when participants in the program subsequently attended schools that were relatively well-funded as a result of the court-ordered reforms. These are interactive, or synergistic, effects between the two types of investment in children. The combined benefits for poor children growing up in places with both greater Head Start spending and K-12 per pupil spending are significantly greater than the sum of the independent effects of either investment on its own. The National Institutes of Health, Russell Sage Foundation, and National Science Foundation (NSF) provided research support.

### SCHOOL FINANCE AND STUDENT SUCCESS

Finance reforms are key for promoting equal educational opportunity, according to IPR Director and economist **Diane Whitmore Schanzenbach** and fellow researchers Julien Lafortune and Jesse Rothstein of the University of California, Berkeley. In research supported by the Spencer Foundation and the Washington Center for Equitable Growth, the authors examine the impact of “adequacy” school finance reforms in the 1990s that

raised funding levels of poorer school districts to guarantee equal access to an “adequate education.” These reforms led to sharp and sustained increases in spending in low-income school districts and sometimes resulted in higher spending in these poorer school districts than in higher-income ones. Using data from the National Assessment of Educational Progress (NAEP), the “nation’s report card,” for 1990–2011, the researchers determine that school finance reforms reduced the test-score gap between low- and high-income districts and that the implied effect of school resources on educational achievement is large. They caution, however, that school finance reforms are a rather blunt instrument in improving education for lower-income children since most do not live in a low-income school district. The research was published in *American Economic Journal: Applied Economics*. Schanzenbach is Margaret Walker Alexander Professor.

### SCHOOLS DIFFER WITHIN DISTRICTS

Understanding which school districts do better at educating both socioeconomically advantaged and disadvantaged students is the first step towards uncovering the causes of success and, ultimately, how to replicate it. A closer look reveals, however, that schools in the same district might differ a great deal. Using linked birth and school records in Florida, IPR education economist **David Figlio** and IPR research associate **Krzysztof Karbownik** demonstrate that within single districts, both advantaged and disadvantaged students fare well in some schools, while in others, both groups do poorly. In yet other schools, one group does relatively well, but the other does relatively poorly. The researchers find that preschool preparation for kindergarten did not explain the differences across schools. Nor were overall school advantage levels related to differences between achievement levels of advantaged and disadvantaged students. Figlio and Karbownik point out that policymakers need to enact school accountability policies that hold schools accountable for the success of specific populations, rather than focusing only on overall schoolwide performance gains or losses. They also urge a closer study of practices at individual schools, rather than stopping research at the district level. The research is ongoing and is sponsored by the Laura and John Arnold Foundation. Early results appear in the Brookings Institution’s *Evidence Speaks* reports. Figlio is the Orrington Lunt Professor of Education and Social Policy and of Economics.

### HOW DO PREMIES DO IN SCHOOL?

Parents of prematurely born babies often fear their children might go on to struggle in school, but findings from a large-scale study by IPR faculty should be reassuring. Results published in *JAMA Pediatrics* show that two-thirds of babies born at only 23 or 24 weeks were ready for kindergarten on time. While those born extremely prematurely often scored low on standardized tests, preterm infants born at 25 weeks or later performed only slightly lower than full-term infants. Pediatrician and IPR associate **Craig Garfield**, with **Figlio, Karbownik**, IPR economist **Jonathan Guryan**, and their colleagues analyze the records of more than 1.3 million babies born in Florida from 1992–2002. The babies had gestational ages of 23–41 weeks and later entered public schools between 1995 and 2012. The researchers match the babies' vital statistics with their school records to examine the association between being born early and educational performance. They learn that most babies born prematurely performed similarly to other children on standardized tests through elementary and middle school. Funding support was provided by the NSF, U.S. Department of Education, Smith Richardson Foundation, and Bill & Melinda Gates Foundation through the National Center for the Analysis of Longitudinal Data in Education Research.

### PROS AND CONS OF REDSHIRTING

Research shows that redshirting, or delaying a child's entrance into kindergarten, has a significant downside, **Schanzenbach** and her co-author, preschool director Stephanie Howard Larson, advise parents in *Education Next*. About 6 percent of all children beginning kindergarten are redshirted, but rates are closer to 1 in 5 among summer-born boys with college-educated parents. While being among the oldest in a class has benefits in the early grades, Schanzenbach's research finds that the impact of being relatively older than other classmates disappears over time and evaporates by high school. On the other hand, being with higher-achieving classmates has a positive spillover—which means that while younger children benefit from having older, redshirted, children in their classroom, the children who delayed entrance to school are negatively affected by attending class with younger children. Because delaying kindergarten a year in turn pushes back college graduation and the transition to the workforce, it even has an effect on a child's future earnings, which for a college-educated male would mean earning \$80,000 less over his working career.

### READING INCENTIVES AND SCALE-UP

**Guryan** extended his ongoing research into Project READS, a summer reading program developed by Harvard University's James Kim. Over summer break, the project mails books weekly to rising fourth- and fifth-grade students. The students were randomly assigned to one of three groups: a control group that received no summer books; a group that received books; and a group that received books and prizes based on the number of books read. In the *Economics of Education Review*, the researchers demonstrate that incentives led to a significant increase in total reading, and the incentives worked best among students already more motivated to read. Though reading comprehension test scores for average students did not increase as a result of the additional summer reading, test scores of the most motivated students who received books well-matched to their skill level did show significant improvement. In related research, Guryan, Kim, and their colleagues experimented with a method that might lead to successful scale-up of the program and others like it. In *Reading Research Quarterly*, the investigators compare "Core" READS with a version that included adaptations created by teachers for their students in a structured process. Their results indicate that the



**JONATHAN GURYAN, CHAIR**

Struggling schools, declining school funding, persistent achievement gaps, and recruiting and retaining effective teachers are just a few of the critical issues that school districts across the nation face. More rigorous research is needed to understand these issues and to create effective solutions. IPR's Education Policy program groups scholars from a variety of disciplines and aligns with other research programs, including Quantitative Methods for Policy Research.

## EDUCATION POLICY

adapted version of the reading program increased the level of student and family engagement with summer books, as well as students' reading comprehension. Additionally, the findings suggest that structured teacher adaptation is a possible method for scaling up literacy interventions.

### FAMILY AND SCHOOL INTERACTIONS

IPR education economist **Ofer Malamud** is examining the possible interactions between conditions in early childhood and the productivity of later investments in education. In a working paper, he and co-authors Cristian Pop-Eleches and Miguel Urquiola of Columbia University use administrative data from Romania to learn whether the benefit of access to better schools—determined by a high-stakes exam—is larger for children who experienced better family environments because they were born after abortion became more widely available in 1990. The results show that access to abortion and access to better schools each had a positive impact on test scores, but they find no evidence of significant interactions between them and later educational investments. If anything, the benefits of access to a better school were larger for children born under a more restrictive abortion policy, suggesting that higher-quality schools might help children overcome their disadvantage.



Research by IPR economist Ofer Malamud suggests that higher-quality schools might help children overcome their disadvantage.

### RACE, GENDER IN SCHOOL DISCIPLINE

Several forms of school discipline might be found to coexist in the same school, IPR education sociologist **Simone Ispa-Landa** observes in *Social Currents*. For example, fairly authoritarian disciplinary policies that include police officers stationed in schools might be found side by side with restorative justice programs meant to counter harsh, criminalizing, and racially disproportionate punishment. The impact on students and student discipline of these two quite different approaches functioning in the same school is not well understood. Are certain types of students (African American girls, for instance) more likely to be routed through the authoritarian channel—disciplined and perhaps even arrested—in contrast with others (middle-class whites, for instance) who are sent through the school's restorative justice program? Ispa-Landa calls for more research to investigate how broader policy contexts influence particular disciplinary programs so as to enrich current scholarship on race and gender disparities in school discipline.

### RACE, STRESS, AND ACADEMIC OUTCOMES

How do racial stressors affect sleep and academic outcomes among teenagers? With funding from the Spencer Foundation, IPR development psychobiologist **Emma Adam**, IPR social psychologist **Mesmin Destin**, and Adriana Umaña-Taylor of Harvard University are following 300 students at a large, racially and ethnically diverse high school. The researchers are specifically measuring the levels of the stress hormone cortisol, as well as sleep length and quality. They will also assign students to different interventions: One group will participate in an eight-week program that promotes developing a positive self-image related to culture, heritage, and race. Another group will receive eight weekly sessions on college and career planning. Adam, Destin, and Umaña-Taylor plan to examine the impact of the programs on stress biology and sleep, student well-being, and academic outcomes, such as grades and high school graduation rates.

### STRESS AND TESTING

In other work funded by the Spencer Foundation, **Adam** is investigating how children respond biologically to the stress of standardized testing. With **Figlio** and former IPR graduate research assistant Jennifer Heissel, now at the Naval Postgraduate School, Adam is also examining whether stressors unrelated to school, such as those associated with children's neighborhood, affect children's

stress hormones and exacerbate the effects of school-based pressures. Initial results demonstrate that students have significantly higher levels of the stress hormone cortisol during both medium- and high-stakes testing. Younger students showed notable elevations the morning of their medium-stakes tests, which were the first major tests they ever had in their schooling. Older students, meanwhile, registered elevated cortisol across much of the day in response to testing. Students who had larger increases in cortisol on test days performed worse, on average, in mathematics, but researchers did not find any significant differences for the language arts or science sections. Adam and her colleagues plan to continue this work to determine whether stress hormone levels predict students' academic performance and emotional well-being.

### MINDSET AND EDUCATIONAL DISPARITIES

Some high school students believe their intelligence is a fixed trait, but others believe that intelligence can grow through education and persistence. Are these different understandings, or mindsets, related to socioeconomic status (SES), and do they predict academic achievement? **Destin** is leading a new interdisciplinary research project with the Mindset Scholars Network to uncover answers to these questions. With colleagues from psychology, statistics, sociology, and data analysis, including statistician and former IPR graduate research assistant Elizabeth Tipton, now at Columbia University, Destin is analyzing three datasets that include about 7,500 students from across the country and from different SES backgrounds. The researchers will be able to observe how mindsets about intelligence vary across a wide range of communities on a national scale. They will be looking to see if trends in mindsets vary based on SES among students from diverse backgrounds. The Raikes Foundation, Overdeck Family Foundation, and Joyce Foundation are providing project funding.

### IMPACT OF REFUGEES ON CLASSMATES

The world is in the midst of a massive refugee crisis. How to cope with the number of asylum seekers has provoked much debate, but scarce empirical evidence exists about the possible effects of refugees on host communities. One concern centers on schools being able to absorb refugee students. In the first investigation of the impact of a large influx of refugees on the educational outcomes of their classmates, **Figlio** and Umut Özek of the American Institutes for Research study what happened when Haitian earthquake survivors entered Florida schools in

2010. Florida received more than 4,000 refugee students who entered public schools—overwhelmingly in just four school districts—by the end of the 2009–10 school year. Using longitudinal education microdata, the researchers examine the effects of the refugees over two years on various subgroups of incumbent students, including blacks, limited English proficiency (LEP) students, non-LEP students, and immigrant students, both from Haiti and elsewhere. In an IPR working paper, Figlio and Özek report zero effects on incumbent students' test scores, disciplinary incidents, and student mobility across all groups, regardless of their SES, grade level, ethnicity, or birthplace.

### TARGETING PARENTS TO IMPROVE GRADES

Previous research has shown that students who receive information about how investment in education will yield rewards in the future experience increases in academic motivation. But little research exists into whether similar messages might motivate parents, in turn, to influence their children's motivation. To investigate, **Destin** and IPR graduate research assistant **Ryan Svoboda** created an experiment directed at a small sample of eighth-grade parents. They recruited parents whose children had already completed eighth grade in the same school to serve on panels to discuss ways they had helped their children think about future opportunities and deal with academic difficulty. The researchers expected that parents in the experiment would be more influenced by members of their own community. The panel's message was that difficult academic challenges are an important opportunity for achievement. For students whose parents attended the panel, they saw their grades rise throughout the school year, and parents' responses to academic difficulty mediated the large effect on grades. The research was published in the *Journal of Adolescence*.

### TEACHERS BENEFIT FROM PROXIMITY

Teachers are usually pictured as isolated from colleagues behind their classroom doors. But new research published in *Sociology of Education* by education professor and IPR associate **James Spillane** suggests that teachers might benefit from the chance encounters that stem from working near one another inside the school building. Spillane, along with former IPR graduate research assistant Matthew Shirrell, now at George Washington University, and Tracy Sweet of the University of Maryland, explore how physical proximity influenced the way teachers interacted. They find that



Research by James Spillane, an education professor and IPR associate, suggests that school buildings should be designed to promote interaction between teachers.

the physical distance between teachers—whether measured using the distance between classrooms or by the overlap of the areas teachers frequent in school buildings—affected the likelihood that school staff interacted with one another and were able to discuss problems and receive advice. Moreover, physical proximity had a stronger impact on teachers of the same grade level than teachers of different grades. The research has several implications for education practice: School buildings should be designed to promote interaction; “master” teachers or those in leadership positions should work in spaces close to other teachers; and school leaders should consider proximity when distributing staff throughout school buildings. Spillane is the Olin Professor in Learning and Organizational Change.

**COLLEGE COSTS: BURDEN OR INVESTMENT?**

The high costs of college can be seen either as a burden or an investment in the future. In *Research in Higher Education*, Destin and Svoboda investigate if how students at selective colleges and universities think about college costs and their futures affects their academic performance. The researchers performed two studies to establish the links between their awareness of education’s financial burden and psychological and cognitive processes, which in turn affect students’ academic achievement. The first study used longitudinal data from 28 selective colleges and established that students who accumulate student-loan debt are less

likely to graduate from college. Their debt predicts a decline in grades over time, even when controlling for other factors such as SES. To identify how financial anxiety influences academic performance, the researchers conducted a second experimental study with 221 undergraduates at an elite research university. Keeping college costs in mind reduced the students’ abilities to complete difficult cognitive tasks. However, those students who thought about college costs and loans but also thought about their connection to future financial success showed no decline in abilities. Better understanding of how students perceive high college costs might help in shaping effective policies to support student performance, especially for low-income and first-generation college students.

**COLLEGE PATHWAYS TO SUCCESS**

Most high school students want to attend college, but not everyone who enrolls succeeds in completing a four-year degree. High-income and high-achieving students are traditionally successful, but what about nontraditional students, who are older, low achieving, or lower income? In *Bridging the Gaps: College Pathways to Career Success* (Russell Sage Foundation, 2017), IPR education researcher James Rosenbaum, former IPR project coordinator Caitlin Ahearn, and Janet Rosenbaum of SUNY Downstate Medical Center propose more education options such as certificates and associate degrees, which offer strong alternatives to bachelor’s degrees and significant earnings payoffs over high school diplomas. These programs can be completed in less time and cost less than four-year degrees. However, nearly half of students drop out of community college before earning a degree. The authors recommend that community colleges create structured pathways to help students navigate their way toward a degree. They also urge better linkages between high schools and community colleges and between the community colleges and four-year institutions.

**PATHWAYS FOR LOW-INCOME STUDENTS**

In a new study that received funding from the William T. Grant Foundation, Rosenbaum continues his research into college pathways for nontraditional students. Which lower SES students complete various college credentials, and which ones receive job payoffs, both monetary—wages and benefits—and nonmonetary—such as job satisfaction? Using national longitudinal survey data from the Education Longitudinal Study 2002–12, Rosenbaum will analyze how colleges serve low-SES

students, and what earnings and job rewards they lead to. The study will also include interviews of high school counselors about how they advise and support low-SES students. The study's goal is to improve understanding about the journeys low-SES students take through college and to lead to better advice, college choices, earnings, and job rewards for these students.

### COLLEGE OPTIONS

Examining college pathways from another angle, **Rosenbaum**, supported by the Smith Richardson Foundation, is beginning a mixed-methods study to identify nontraditional college options, such as vocational training. Analyzing two national surveys, he will examine which students take these options, which pathways benefit these students, and how students learn about these options. Such students are now expected to attend college even if they are not high academic achievers. These youth face added obstacles but might not see alternative options that avoid these obstacles, and perhaps even lead to the same goals. In interviews with high school guidance counselors in cities and suburbs, the study will investigate how they inform students about options beyond traditional four-year degree programs.

### IMPROVING EDUCATIONAL GAMES

Both computer tutoring systems and games have become popular and widespread in recent years. So-called intelligent tutoring includes correction of a student's mistakes, while games reward success and penalize players for errors. What balance of these two types of activities increase learning and interest? To find out, learning scientist and IPR associate **Matthew Easterday** and colleagues at Carnegie Mellon University created two versions of an educational game for learning policy argumentation called Policy World—a game-only version and a game-plus-tutor version that included teaching feedback and immediate error correction. In results published in the *Journal of the Learning Sciences*, the researchers demonstrate that the game-plus-tutor version increased

the players' learning of policy analysis skills and self-reported competence. The study suggests that increasing tutoring and reducing penalties in educational games can increase learning without sacrificing interest.

### ECONOMICS AND LITERATURE

**Morton Schapiro**, Northwestern University president, professor, and IPR economist, and Gary Saul Morson, the Lawrence B. Dumas Professor of the Arts and Humanities and professor of Slavic languages and literatures, published their second book, *Cents and Sensibility: What Economics Can Learn from the Humanities* (Princeton University Press, 2017). The scholars argue that the study of literature offers economists ways to improve their models and predictions, as well as ways to shape more effective and just policies. At the same time, they underscore, examining literature through the lens of real-world economic problems can help to revitalize its study. The book was widely reviewed and discussed, in the academic press and beyond, including by the Times Higher Education, Washington Post, and Wall Street Journal. Schapiro and Morson penned several opinion pieces based on the book and spoke about the value of the humanities to the study of economics and vice versa at the Chicago Humanities Festival in November.



From left: Morton Schapiro, Northwestern president, professor, and IPR economist, and Slavic languages professor Gary Saul Morson reflect on their book, *Cents and Sensibility*, for a Northwestern University podcast.



Strategy professor and IPR associate **Benjamin Jones** has developed a way to measure the relationship between scientific research and patents, discovering that 61 percent of patents link back to a prior research article.

## RESEARCH TOPICS

- Performance in government and nonprofits
- Healthcare markets and regulation
- Accountability in education

## PATENTS AND SCIENTIFIC ADVANCES

Scientific research can lead both to basic insights into the world and to practical applications. It has been hard to measure, however, the extent to which scientific advances have led to technological innovations. How much does the research from universities and government labs contribute to new inventions with practical applications that firms can manufacture? In research published in *Science*, strategy professor and IPR associate **Benjamin Jones**, along with his Kellogg colleague Mohammad Ahmadpoor, develop a way to measure the relationship between scientific research and patents. The researchers connected references from all 4.8 million U.S. patents from 1976–2015 to all 32 million journal articles published from 1945–2013, allowing them to determine the distance between an article and a patent. Beyond whether published scientific research connected to patents, they also measured how many steps—other articles or patents—were connected along the way. Jones and Ahmadpoor discover that 61 percent of patents link back to a prior research article, and 80 percent of cited research articles link forward to a future patent. They are able to characterize the connections by scientific field, types of institutions, for example, government labs, and even individual scientists. Jones is the Gordon and Llura Gund Family Professor of Entrepreneurship.

## COMPULSORY LICENSING AND INNOVATION

Compulsory licensing allows governments to license patented inventions without the patent owners' consent. Developing countries often use this policy to license domestic firms to manufacture valuable and otherwise expensive drugs, such as those to treat HIV and cancer, that are patented in foreign countries. The patent holders do not give permission for the license and do not receive payment for the use of their invention. Does compulsory licensing discourage discoveries that lead to patents by reducing their value? Or, does it spur innovation by motivating inventors to stay in front with new breakthroughs? To answer this question, economist and IPR associate **Nicola Bianchi** and his colleagues

examine a rare historical example of compulsory licensing in the *Journal of Development Economics*. During World War I, the U.S. government confiscated all U.S. patents by German inventors, making more than 4,700 of them available for compulsory licensing. In the fields most affected, German inventors began to apply for more patents after the war, the researchers find. Compared with the number of pre-war patents in chemicals, for example, patenting increased 30 percent after 1918. The data suggest that compulsory licensing might have encouraged inventors by increasing competition, motivating them, thus, to invest more in research and development.

## CASH FOR CARBON

Deforestation accounts for an estimated 9 percent of human-induced carbon emissions. How can deforestation be slowed effectively in developing countries, where most global deforestation occurs? A recent study in Uganda by IPR economist **Seema Jayachandran** and her colleagues, published in *Science*, suggests that paying people to conserve their trees could be a highly cost-effective way to reduce deforestation, and, therefore, carbon emissions. The researchers conducted a randomized controlled trial in 121 villages in western Uganda over two years. In 60 villages, forest owners were paid to not cut down their trees, while forest owners in the remaining villages received no payments. Using high-resolution satellite imagery to compare tree cover, Jayachandran and her colleagues determine that forest cover declined by just 4.2 percent in villages that received payments. For villages not enrolled in the payment program, forest cover fell by 9.1 percent, meaning fewer trees were cut down when payments were offered. Not only did the program effectively reduce deforestation, it was very cost-effective. The researchers estimate that the benefit of delayed carbon dioxide emissions is 2.4 times larger than the program costs. The Global Environment Facility, through the United Nations Environment Program, International Initiative for Impact Evaluation, and National Science Foundation provided project funding (see p. 88).

## LESSONS FROM TWO YEARS AT HAMILTON

**Diane Whitmore Schanzenbach**, IPR director and economist, gave an overview of The Hamilton Project under her leadership from 2015–17, paying particular attention to measuring its performance, in the IPR Performance Measurement and Rewards Series on December 5. She identified three types of Hamilton products and the indicators of their success. The first, Hamilton's "bread and butter," consists of identifying policy proposals from

## PERFORMANCE MEASUREMENT AND REWARDS

leading academics and making them understandable, actionable, and available. The second product is creating a primer to outline the facts of an issue, and the third is producing a brief but timely economic analysis of an issue. What were the markers of success for these efforts? Both the number and the quality of the publications and events are important in evaluating performance. Measures include good press coverage, both short- and longer-term; citations by federal and state policymakers; the size of the audience at the release and its composition; and the number of posts, tweets, and downloads. Schanzenbach, the Margaret Walker Alexander Professor, pointed to one of Hamilton's "biggest successes" under her tenure: its report on states' options for a new metric required by the Every Student Succeeds Act (ESSA). It recommended states adopt chronic absenteeism as that metric, and 36 of 50 states did so, as well as Puerto Rico and Washington, D.C. However, she reminded her audience, much assessment of policy impact is not measurable.

### THE PERILS OF PAY-FOR-PERFORMANCE

Government and nonprofit activities are often difficult, if not impossible, to measure and assign monetary value to in ways that are broadly acceptable. These difficulties prevent the adoption of incentive systems that align rewards with performance. IPR economist **Burton Weisbrod** is writing a book, under contract with Stanford University Press, to consider the unintended—but foreseeable and counterproductive—consequences of the rising tide of efforts to reward performance measures, such as standardized tests for schoolchildren and crime rates for police. These involve adopting measures that are both incomplete and biased and then rewarding them. Titled "The Perils of Pay-for-Performance: Why Strong Rewards in Government and Nonprofit Organizations Don't Work," the book will cover a wide array of public and nonprofit sector services, such as K-12 education, hospitals, nursing homes, hospices, policing and jails, museums, charities, and the federal judiciary. Weisbrod emphasizes how the forces at work in these services cause strong rewards to be strategically gamed, inflating or distorting results, so that measured performance, not truly good performance, is rewarded. He explains why measured performance and actual performance are in conflict—why, for example, larger rewards in public schools might improve test scores but not learning. He notes that the next frontier for pay-for-performance is higher education and predicts the forms gaming will take there. Weisbrod directs IPR's Performance Measurement and Rewards Series, which features presentations by

researchers studying healthcare, education, policing, and other social service industries. He is Cardiss Collins Professor of Economics.

### IMPROVING EARTHQUAKE HAZARD MAPS

Scientists create complex models to forecast the hazards that earthquakes pose, both to structures and to people, and they represent their forecasts in maps that show different levels of hazards for different geographical areas. IPR statistician **Bruce Spencer**, geophysicist and IPR associate **Seth Stein**, and IPR graduate research assistant **Edward Brooks** are researching ways to improve the accuracy of hazard maps so that better policy decisions can be made about where to locate vulnerable structures—such as nuclear power or chemical plants—and for setting appropriate building codes. In an *International Journal of Earthquake and Impact Engineering* article, the researchers explore how hazard maps actually perform. Using a 510-year record of shaking in Japan, they find that too much historical detail makes the maps less accurate for predicting future hazards. They conclude that the goal of such hazard maps should not be to build the most detailed model, but instead, one that is robust or stable in the sense that the forecast is not unduly affected when the earth does not behave exactly as expected. Stein is William Deering Professor.



**BURTON WEISBROD, CHAIR**

Scholars from the fields of economics, law, management, political science, social policy, and statistics have focused research and public policy analysis on the measurement and rewarding of "performance" in nonprofit organizations and government. They examine how good performance is being measured and search for common problems, solutions, and reward mechanisms that provide incentives for efficiency. Research complements IPR's programs on Education Policy and Urban Policy.



Feinberg researcher and IPR associate Joe Feinglass explains how emergency department visits in Illinois have changed since passage of the Affordable Care Act.

### SCHOOL POLICIES UNEVENLY IMPLEMENTED

In 2002, the Florida legislature implemented rules that require students who do not meet a test of grade-level reading skills to repeat third grade. The policy includes certain exemptions for students that allow them to continue to fourth grade. IPR education economist **David Figlio**, the Orrington Lunt Professor, with former IPR graduate research assistant Christina LiCalsi and Umut Özek, who are both at the American Institutes for Research, investigate whether the retention rule was applied to all children whose test scores fell below the cutoff, or if some children received exemptions based on their socioeconomic (SES) background. A good indicator of higher SES—maternal education level—is recorded in the state’s birth records data, which the researchers matched to school records. The researchers determine that the grade retention policy is, in fact, not enforced equally. Among the students who scored just below the reading-level cutoff, those whose mothers had not graduated from high school were 14 percent more likely to be retained than children whose mothers had a bachelor’s degree or more. The ability of more highly educated mothers to know how to apply for exemptions and how to deal with school personnel most likely leads to the discrepancy in applying the retention rule, the researchers suggest. Since evidence shows that grade retention of lower-SES children might be harmful, it could be that Florida’s test-based promotion policy might be harming, not helping, these students. The study was published in *Education Finance and Policy* and

received funding from the U.S. Department of Education’s Institute of Education Sciences.

### INCREASING ENROLLMENT IN SNAP

The Supplemental Nutrition Assistance Program (SNAP), previously known as food stamps, provides cash that can be spent on food to eligible low-income U.S. households. The program requires individuals to apply and demonstrate their eligibility to qualify. Some apparently eligible people do not apply for benefits, perhaps put off by the time and effort required. How can they be encouraged to apply? IPR economist **Matthew Notowidigdo** and Amy Finkelstein of the Massachusetts Institute of Technology are examining several possibilities in research sponsored by the Abdul Latif Jameel Poverty Action Lab. With research partner Benefits Data Trust (BDT), a nonprofit experienced in helping people obtain benefits, Notowidigdo and Finkelstein conducted a randomized controlled trial among elderly households in Pennsylvania that were likely eligible. About 30,000 such households were divided into three groups, all of whom received a letter about their possible SNAP eligibility: one group also received a follow-up postcard; a second group was given a toll-free number for BDT’s application assistance; and a control group received no assistance from BDT. The researchers measured the impact of the two methods—information only and information plus assistance—by the number of households who applied and ultimately enrolled in SNAP after nine months. The group that received information only increased enrollment by 5 percentage points, while the group that received information plus assistance increased enrollment by 12 percentage points. The researchers are developing our understanding of how to improve outreach methods to low-income households who typically do not participate in social safety net programs.

### THE ACA AND EMERGENCY DEPARTMENT USE

Of the 1.5 million people in Illinois who were uninsured prior to the Affordable Care Act (ACA) becoming law in 2014, 650,000 now have some sort of insurance, mostly Medicaid. Research professor of medicine and IPR associate **Joe Feinglass** has been tracking newly insured people’s increased emergency department (ED) visits in the state since that time. In research using statewide hospital data from 2011–15, published in the *Annals of Emergency Medicine*, Feinglass and his colleagues discover that adults aged 18–64 made more ED visits after the ACA’s expansion. Medicaid beneficiaries made more visits and uninsured patients made fewer visits. In

## PERFORMANCE MEASUREMENT AND REWARDS

the *Western Journal of Emergency Medicine*, Feinglass and fellow researchers compare people's insurance status change and ED visit rate for two years prior and two years after the ACA's enactment. They confirm that its implementation led to an increase in ED visits by adults aged 18–64, while areas with the largest increases in Medicaid enrollment experienced the largest growth in ED use. Will providing better access to primary and preventive care to newly insured adults reduce ED use over time? While more research is needed to answer this question, the researchers stress that monitoring local ED use is vital to the success of new home- and community-based care coordination initiatives.

### WHAT DOES HEALTH INSURANCE DO?

Publicly subsidized health insurance coverage, such as that provided through the ACA, provides benefits to the previously uninsured, including improvements in health, reductions in out-of-pocket spending, and reduced medical debt. Newly insured people are not the only beneficiaries, however, of expanding formal health insurance coverage, as uncovered by **Notowidigdo**, Finkelstein, and Neale Mahoney of the University of Chicago. They demonstrate that because the nominally uninsured pay only a small share of their medical expenses—about one-fifth to one-third—health insurance also provides substantial payments to others, such as hospitals and healthcare providers, who would otherwise have to cover the costs of providing uncompensated care to the uninsured. In effect, the uninsured are implicitly insured. This helps explain why individuals do not enroll in heavily subsidized public health insurance and why they value formal health insurance at costs substantially less than the cost to insurers of providing them coverage. Expanded, publicly funded health insurance might not be benefiting low-income people as much as it might be transferring income to healthcare providers and others who care for the uninsured. The National Institute on Aging supported their research.

### ECONOMIC RESULTS OF HOSPITALIZATION

Fewer Americans are uninsured since the ACA's passage. But even insured patients might face a big financial price if they are admitted to the hospital. To assess the economic impacts of hospital admissions, **Notowidigdo**, along with colleagues from the University of California, Santa Cruz, and the Massachusetts Institute of Technology, closely examine the health and financial records of Californians who entered the hospital between 2003 and 2007 in the

*American Economic Review*. Excluding pregnancies and people who had been in the hospital in the last three years, the researchers find the average hospital stay lasted about four days and had a sticker price of \$45,000—which is typically bargained down in later negotiation. Uninsured patients quickly fell into debt, while working-age insured adults also suffered financial difficulties. Following a hospital stay, these workers with health insurance experienced larger out-of-pocket medical spending, unpaid medical bills, and bankruptcy, as well as reduced earnings, access to credit, and consumer borrowing. For example, insured adults between the ages of 50 and 59 saw their annual incomes fall by over \$9,000, a decline of about 20 percent, and their probability of being employed dropped by 15 percent after hospitalization. In contrast, elderly patients, who had health insurance through Medicare and had small labor market earnings, appeared to suffer few or no economic setbacks from being hospitalized. These findings underline that insurance in the United States, unlike some European countries, rarely covers any decline in earnings. The National Institute on Aging and the NSF provided research funding.

### NONPROFIT HOSPITALS RESPOND TO CHANGE

In research published in the *RAND Journal of Economics*, healthcare economists and IPR associates **David Dranove** and **Craig Garthwaite**, along with Kellogg's Christopher Ody, reveal mixed evidence about how much nonprofits behave like for-profits. They discover that the average nonprofit hospital suffered reduced assets from the 2008 collapse, which economic theory suggests should lead to them raising prices, reducing quality, or taking other actions to decrease their unprofitable activities. Yet they did not raise prices, cut operating costs, or decrease their offering of charity care—unlike how a for-profit would act. Their financial losses thus persisted for several years. The nonprofits did cut back some relatively unprofitable services, however. The researchers show that nonprofits with bigger market shares adjusted prices without changing the services they offered, a response the researchers did not expect from for-profit hospitals. For the most part, however, nonprofit hospitals behaved like for-profits in disguise, responding to wealth shocks in the same way that for-profits would respond. Dranove is the Walter McNERNEY Distinguished Professor of Health Industry Management, and Garthwaite is the Herman Smith Research Professor in Hospital and Health Services Management.



IPR political scientist Rachel Beatty Riedl served as an independent election observer in Liberia in October. Her research has explored democracies in Africa.

## RESEARCH TOPICS

- Public opinion and political participation
- Parties, partisanship, and compromise
- Political communication and issue frames
- Legal changes and policy implications
- News, technology, and online behavior

### GOVERNMENT AND AUTHORITARIANISM

When and why do governments become less authoritarian? Why have some countries, such as Syria, moved from authoritarianism toward instability, while others, such as Nigeria, have become more democratic? Are democracies in the United States and Western Europe headed for breakdown? These were some of the overarching questions discussed at “The Democratic Change Research Initiative: Global Trajectories and Policy Analysis,” an April 12 workshop led by IPR political scientist **Rachel Beatty Riedl** and co-sponsored by IPR and the Buffett Institute for Global Studies. Throughout the day, speakers from Oxford, Harvard, Princeton, Stanford, and Gothenburg, in addition to Northwestern and other universities, debated various topics, including autocratic practices in democracy and democratic breakdown in the West. Northwestern political scientist Jason Seawright discussed how populist movements, like that of Hugo Chavez, can erode democracy. IPR political scientist **Daniel Galvin** chaired a panel in which Harvard’s Daniel Ziblatt suggested that authoritarianism could resurge in the “consolidated democracies” in the United States and Western Europe. IPR sociologist **Anthony Chen** also discussed how the election of President Donald Trump and populist movements in the United States could be a part of a wider global trend.

### SECURITY AND GOVERNANCE IN THE SAHEL

Following the regime change in Libya and the territorial takeover in northern Mali by the National Movement for the Liberation of Azawad in 2012, as well as international intervention to push back the militants and restore electoral democracy in the Malian capital of Bamako, the Sahel region has undergone dramatic changes. An ongoing research project from **Riedl** addresses the implications of this regional recalibration in collaboration with partners at Sciences Po. The period of military conflict created new dynamics for state and civil society, in terms of military strategies, state governmentality, and associational organizations. The

Sahel’s changes also unleashed certain pre-existing forces that were more marginal in the region and provided opportunities for transformation of well-established currents in the state, civil society, and the military. Riedl seeks to shed light on the implications of this regional recalibration, including how state and political actors are utilizing the resources and security situation to shape the domestic political environment.

### THE URBAN-RURAL CONNECTION

Who is an urban citizen? Africa’s rapid urbanization has raised many questions about the nature of demographic change and its political consequences. Another project by **Riedl** studies the nature of urban-rural connections in sub-Saharan Africa. This research project goes beyond existing notions of urbanization and circular migration, or when migrant workers move between their home and place of work, to explore the multiple dimensions of linkage that continue to connect urban residents with their rural homes. Citizens vary dramatically in the ways in which they maintain ties with their rural home and the forms of adaptation and replacement they pursue. Riedl demonstrates that the depth and duration of one’s urban experience is strongly related to the specific dimensions of the urban-rural linkage pursued, and that policy reforms in electoral procedures, judicial administration, and decentralized public services must account for urban citizens’ continued rural engagement. Citizens’ socioeconomic status, religion, and ethnicity also condition the dimensions of the linkage pursued and the extent of replacement available through new forms of urban connection.

### BUSINESS, POLITICS, AND POLICY

How politically powerful is American organized business? Does its political power distort democratic representation? A working paper by **Chen** examines how these questions are answered in the existing social science literature. Chen finds that the answers in the literature are inconsistent and uncertain, partly because of the way previous studies have been typically designed. Chen’s working paper points toward a new way of conceptualizing business power and measuring its outcomes. He argues that future studies should take a more granular approach, focusing on outcomes at the industry level and involving smaller units of political association. At the same time, he suggests that policy outcomes should be conceptualized as interrelated sets of policy choices that span levels and branches of government. His working paper was initially presented

at a meeting of a working group associated with the Anxieties of Democracy program of the Social Science Research Council. It will appear as a chapter in *Can America Govern Itself?* (forthcoming from Cambridge University Press).

### (IN)CIVILITY AND PARTISAN MEDIA

Over the past 25 years, the rise of partisan media outlets has dominated the landscape. While scholars have researched the effects of partisan media on political attitudes and behaviors, existing research has not successfully separated out the direct consequences of incivility versus other aspects of partisan media. In an IPR working paper, IPR political scientist **James Druckman** and his colleagues, including IPR graduate research assistant **Samuel Gubitz**, use a population-based survey experiment to show that civility can polarize or depolarize audiences depending on the audience and the source. They surveyed a nationally representative sample of more than 5,000 participants by randomly assigning respondents to one of four conditions that varied two factors: partisan source—either Fox News or MSNBC—and level of civility—either civil or uncivil. Interestingly, they find that when partisan media comes from the same party as the audience, such as when a Republican watches Fox News or a Democrat watches MSNBC, partisans feel less trusting of their party and move away from the positions advocated by the same-party source. While this finding might suggest a silver lining to rising incivility in partisan media, the researchers suggest that the costs of incivility, such as decreasing trust in the government and potential demobilization of partisans, could outweigh its depolarizing effects. Druckman is the Payson S. Wild Professor of Political Science.

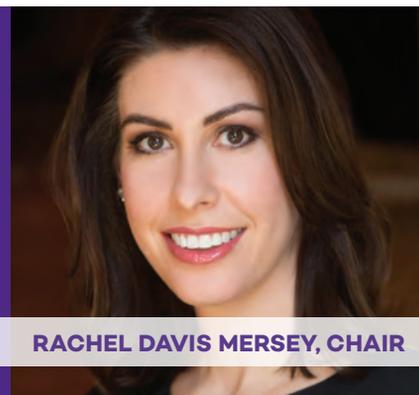
### TITLE IX AND SEX-EQUITY PERCEPTIONS

More than 40 years after its passage, how do college student-athletes view Title IX? In an IPR working paper, **Druckman**, IPR graduate research assistant **Jacob Rothschild**, and Elizabeth Sharrow of the University of Massachusetts Amherst study how the policy, which prevents colleges and universities from discriminating based on sex, has affected college athletes' views on sex discrimination. In a survey of 1,615 NCAA student-athletes, almost all respondents supported the spirit of the policy. While the vast majority of respondents said that resources and opportunities should be distributed equally between male and female athletes, most respondents—especially women and those who believe sex discrimination in society persists—said that male athletes are given more

resources and that redistribution is needed to promote greater equity in college athletics. The survey results suggest that from the perspective of college student-athletes, Title IX has not yet achieved its intended goal of eliminating sex-based discrimination. According to the researchers, the findings highlight the political nature of college athletics and raise the question: To whom are policymakers and leaders in college athletics responding with such policies?

### STATE OF POLITICAL BEHAVIOR RESEARCH

In an IPR working paper, **Druckman** and his colleagues explore the landscape of political behavior research, analyzing the most important concepts in the literature and whether experimental data sources have supplanted surveys. They focus particularly on the usefulness of the American National Election Studies (ANES), which have been a central provider of electoral data since 1980 and have received millions of dollars in federal funding. Based on an analysis of more than 1,000 published articles, the researchers make several observations about the evolution of political behavior research. They find that the existing literature focuses heavily on understanding voting, rather than examining specific policy attitudes and other relevant topics, and that this agenda has remained relatively unchanged since 1980. They also



**RACHEL DAVIS MERSEY, CHAIR**

Debates over immigration, income inequality, climate change, gender, and taxes continue to take place not only in the halls of Congress, but also in boardrooms, classrooms, and living rooms around the nation. IPR faculty are examining key aspects of the ways in which social, political, and institutional dynamics shape and constrain policymaking in the United States. Researchers analyze the role of government, policymakers, public opinion, and the media, among others.

note that political behavior research increasingly relies on experiments, though surveys are still important in the field. Finally, they highlight the enduring importance of the ANES, especially its time-series component. Druckman and his co-authors conclude that ANES is the main driver of political behavior research and a worthwhile, critical investment for the scientific community.

### CONGRESSIONAL WEB CAMPAIGNING

How has the digital age affected congressional campaigns? In an IPR working paper, **Druckman**, Martin Kifer of High Point University, and Oberlin College's Michael Parkin explore how an increased reliance on the internet has affected the way candidates craft their online websites. Analyzing data from elections in 2008, 2014, and 2016, the researchers find that candidate websites have played a similar role in campaigning over time. These websites continue to function as digital hubs, with a wealth of information about each candidate's stances and beliefs. The researchers note that the historic circumstances of the 2016 presidential election, including the first female candidate from a major party, Hillary Clinton, and Washington-outsider Donald Trump, did not have much of an effect on website usage for congressional candidates. Most of these candidates steered clear of the presidential election and used their websites to focus on their own stances. Overall, the researchers conclude that, even given the unusual nature of the 2016 race, internet use in congressional campaigning remains much the same as it has for the past decade, with little to no change in how online messaging is used to connect with voters.

### LIMITS OF POLICY FEEDBACK

A number of major policy achievements during President Obama's administration, such as the Affordable Care Act, did not translate to electoral victories for the Democratic Party in 2016. In *The Forum*, IPR political scientist **Daniel Galvin** and political scientist and IPR associate **Chloe Thurston** challenge the widely held view that policy wins generate feedback effects that lead to electoral benefits. Specifically, they propose that the Democratic party's faith in policy feedback is "misplaced." They outline three main arguments: First, policies do not necessarily, and often do not, generate their own political supports. Second, even when policies generate political support, there is little evidence that they cement partisan loyalties among the electorate. Finally, Galvin and Thurston argue that policymaking and party-building are mutually dependent but serve very different functions. They conclude that although the Obama administration achieved a number of major policy wins, its failure to build the Democratic party organization could lead to the rollback of much of his policy legacy under the current administration.

### EMPLOYMENT LAW KEY TO WORKERS' RIGHTS

For decades, labor laws have been the primary institutional channel for advocates to protect workers' rights. In the *Labor Studies Journal*, **Galvin** explains how, in recent years, employment law, which deals with the rights of individual workers rather than groups of workers, has come to displace labor law as the primary vehicle to challenge threats to workers' rights. While existing research has documented the rise of employment law at the federal level, Galvin conducts an analysis of state laws, finding that employment law has expanded dramatically both in terms of the types and numbers of laws passed. He applies a historical-institutional perspective to document how the rise of employment law has coincided with the decline of unions: As unions have become less powerful in the United States, he argues, workers have had no choice but to turn to employment law instead. Galvin concludes his analysis with a discussion of the tradeoffs created by the shift from labor law to employment law and observes that employment law is likely to remain central to the labor movement going forward.



IPR political scientist Daniel Galvin (left) discusses his work on wage theft with IPR sociologist Anthony Chen.



Political scientist and IPR associate Chloe Thurston is investigating how homeownership has become synonymous with U.S. economic security and middle-class status. She explains that homeownership's centrality to Americans' economic lives is the product of federal government policies established during the 1930s and developed over the 20th century.

### WHY DO LAWMAKERS REJECT COMPROMISE?

Complaints about gridlock often focus on a lack of common ground between legislators, but elected officials often fail to accept compromises even when common ground can be found. In a survey of state legislators, IPR political scientist **Laurel Harbridge-Yong** uncovers a puzzling finding: Almost one-quarter of the legislators said they would reject a compromise that would move a given policy halfway to their preferred position. Now, Harbridge-Yong is collaborating with Sarah Anderson of the University California, Santa Barbara, and Daniel Butler of the University of California, San Diego, on a book that will seek to explain why legislators reject compromise. Looking at several possible explanations, they identify fear of voter retribution as a driving cause of opposing compromise. They uncover that when legislators talk about a fear of voter retribution at the polls, they are usually referring to primary voters, while they recognize that general election voters might value agreement more. In discussing how to address this unwillingness to compromise, the researchers assess solutions proposed by No Labels—a group that emphasizes shared end goals to promote compromise—as well as a 2013 American Political Science Association report that emphasizes how private negotiations can

encourage compromise. The project not only highlights voters as one of the reasons for continued gridlock, but also seeks to outline solutions that increase legislators' willingness to compromise.

### PASSING THE BUCK IN CONGRESS

When something goes wrong in one of America's key governing bodies, everyone wants someone to blame. Gridlocked legislature, unpassable policies, and general inaction are just a few of the problems Americans identify within Congress. However, it seems that some politicians have found a way to turn these problems into benefits by blaming them on the other side. As **Harbridge-Yong** and David Doherty of Loyola University Chicago note in an IPR working paper, "passing the buck" through blaming rhetoric is a potentially effective political strategy for avoiding the consequences of inaction. In very polarized, partisan environments such as the House and Senate, placing blame on the opposing party is effective in many ways, with the party or institution that bears the brunt of the blame often facing a damaged reputation and general distrust from the public. However, legislators risk some backlash for blaming the opposing party, both among Independents and those aligned with the opposing party. Harbridge-Yong and Doherty are continuing with

work in this vein, seeking to understand both the public response to passing the buck and how frequently this occurs in members' constituent communication.

### INTENSITY OF POLITICAL ATTITUDES

The most common way to gauge the intensity of political attitudes is through survey questions that simply ask respondents how important an issue is to them. But there has been little discussion as to whether this is an effective way of capturing the actual intensity of feeling around specific issues. In a project with Greg Huber of Yale University and Erik Snowberg of the University of British Columbia, IPR political scientist **John Bullock** is working to devise measures of intensity that better capture the strength of political attitudes. The researchers note that current measures have issues, such as the fact that current survey methods do not provide meaningful insight into people's votes or into their attitudes toward candidates. They also recognize that conventional methods of measuring political attitudes might confound concerns about an issue with concerns dependent on the status quo. For instance, a question that asks if an issue is important to a respondent fails to separate out whether the issue itself is important or whether the respondent says the issue is important because the current status of the policy is far from their preferred policy. In this ongoing project, Bullock and his co-authors work to develop measures that will overcome these specific challenges and provide more meaningful insight into the intensity of political attitudes.

### ATTITUDES TOWARD REDISTRIBUTION

Though scholars have studied education's effects on many different outcomes, relatively little attention has been paid to its effects on adults' economic views. In new research, **Bullock** is examining those effects. Within-state changes in the strictness of attendance laws help to account for endogeneity, or those variables arising from schooling decisions. It presents results based on longitudinal data that suggest secondary education has a little-appreciated consequence: It makes Americans more opposed to redistribution. Placebo tests and other analyses confirm this finding. Further investigation suggests that these conservative effects of education operate partly by changing the way that self-interest shapes people's ideas about redistribution.

### PARTISANS' ECONOMIC PERCEPTIONS

IPR political scientist **Mary McGrath** re-examines a 2009 study that looks at whether partisans "put their money where their mouth is" after a presidential election by altering their consumption according to whether their party wins the White House. The original study, by Yale University's Alan Gerber and Gregory Huber, reported signs of such a relationship between partisanship and economic behavior. McGrath's analysis, which added the 2008 and 2012 elections, shows that the data do not support the finding that partisans change their consumption behavior based on whether their party wins. Her *Quarterly Journal of Political Science* study suggests that economic perceptions are not being filtered through partisanship, although more research is needed. To that end, McGrath is now extending this study to other countries to determine if they exhibit any evidence of partisanship affecting economic decision making.

### PARTISANSHIP AND POLITICAL OPINION

How does partisanship affect political opinions? Cues about partisanship, such as the stance usually held by the political party one identifies with, can change how people respond to questions about political opinion. But little is known about why this is the case. In an ongoing project, **McGrath** considers the different mechanisms that might explain the connection between partisanship and opinion on political issues. One possible mechanism is that people shift their opinions to maintain a sense of group belonging. In other words, if a political party shifts stances on a political issue, individuals who identify with



IPR political scientists John Bullock (left) seeks advice on his research measuring the intensity of political attitudes from fellow political scientist James Druckman.

the party might also shift stances to remain aligned with the group. Another possible explanation is that people shift their positions based on a new understanding of the issue, such as by inferring new information from the stance held by their political party. McGrath is conducting a series of experiments to test the extent to which these two mechanisms play a role in different contexts. The results will have significant implications for understanding democracy, specifically the ways in which identifying with a political party affects opinions on a variety of political issues.

### GROUP ID AND THE COLLABORATION EFFECT

How do we decide who deserves our help? In an IPR working paper, **McGrath** studies how members of a perceived group treat each other versus those outside the group in regards to wealth redistribution. To do so, McGrath uses an experiment with two groups: In one group, respondents are put in pairs to collaborate on an online task, while in the second group, respondents are informed they have a partner but work on their tasks separately. Once the task is complete, all respondents are informed they have won a bonus and are offered the option to share some of their bonus payment with their partner. McGrath finds that respondents who worked on a task collaboratively were more likely to share some of their bonus. In an additional round of the experiment, McGrath measures whether respondents are more likely to share with in-group or out-group partners by varying the partners' demographic characteristics, such as race, political party, and gender. She finds that collaboration diminishes among different-race partners: Respondents who are of the same race as their partners are more likely to share their bonus than respondents who are of a different race than their collaborator. Interestingly, the experiment does not show the same difference for out-group status by gender or political party. The results suggest that the collaboration effect goes beyond the context of immediate collaboration and could alter reported policy preferences for federal redistribution and welfare spending.

### DEBATE OVER CONFEDERATE SYMBOLS

The United States is facing renewed debate around Southern symbols such as the Confederate flag, with citizens arguing whether such symbols represent harmless Southern pride or prejudice against African Americans. In an effort to assess these competing claims, political scientist and IPR associate **Thomas Ogorzalek** examines the historical reintroduction of the Confederate

flag in the South in the middle of the 20th century. He outlines how the reintroduction of Southern symbolism is tied to the desegregation movement, and he uses three survey datasets to investigate the racial motivations of such symbols. Ogorzalek notes that the data do little to substantiate claims that white support for Confederate symbols stems from Southern pride. In fact, knowledge of the Civil War is negatively correlated with support for the Confederate flag, while racial resentment is positively associated with support for the flag. In addition, prejudice against African Americans is linked with warm feelings toward white Southerners. The findings, published in *Du Bois Review*, clarify the role Confederate symbols play in public debate and the attitudes typically held by those who “rally round” this particular flag.

### THE ORIGINS OF REAGAN'S 1981 TAX CUT

Tax cuts have been a central element of the rise of a free-market philosophy in the United States that promotes markets over government intervention, which President Ronald Reagan endorsed during his time in office, 1980–88. Drawing on recently released archives from the Reagan Presidential Library, IPR sociologist **Monica Prasad** is examining the origins of Reagan's first major tax cut, part of the Economic Recovery Tax Act of 1981. Also known as the “Laffer curve” tax because of its relationship to “supply-side” economics, the 1981 tax cut lowered marginal tax rates across the board and set the tone for the decline of progressive taxation over the ensuing years. Prasad is working on a book about Reagan's first tax cut, and the effects of the tax-cut movement on inequality and political conservatism today. More broadly, her book will look at the overall role that money plays in American politics, including in the passage of tax-cut policies. This project is supported with funding from Prasad's National Science Foundation CAREER award.

### COMBATING CORRUPTION

From bribing an official to issue a birth certificate to political graft, corruption in government affects societies across the globe. Given its ubiquity and many forms, can it be curbed, and if so, how? In ongoing work, **Prasad** takes an interdisciplinary approach to studying the varied sources of corruption and potential solutions for combating it. Along with political scientist and IPR associate **Jordan Gans-Morse**, Prasad wrote a report for the U.S. Agency for International Development (USAID) outlining “Interdisciplinary Approaches to the Study of Corruption.” The report argues that approaches to corruption reform that focus on punishing, rewarding,

## POLITICS, INSTITUTIONS, AND PUBLIC POLICY

or monitoring individuals are not likely to succeed in the long term, because they depend on those doing the punishing, rewarding, or monitoring being themselves incorruptible. Instead, the report elaborates on potentially more promising organizational-level strategies of change. Prasad and Gans-Morse also organized a workshop that brought together scholars from across disciplines to discuss the USAID report along with their own research findings and insights. The presentations, which covered topics ranging from the success of anti-corruption strategies and views of political corruption in Brazil to the challenges of using digital technologies to fight corruption, further highlighted the need for an interdisciplinary approach to studying and combating corruption in its many forms around the world.

### NSF INITIATIVE ON ‘FUTURE OF WORK’

IPR social policy professor **Fay Lomax Cook** continues her work at the National Science Foundation (NSF), serving as assistant director and head of the Social, Behavioral, and Economic Sciences (SBE) Directorate. Under Cook’s leadership, the directorate recently provided \$1.9 million for 11 awards to foster robust and reliable research on reproducibility and replicability. The directorate also provided support to the National Academies of Science, Engineering, and Medicine for a workshop on the future of graduate education in the social and behavioral sciences. The workshop addressed how to change graduate training to meet future workforce needs. Along this same theme, the SBE is leading an initiative on how technologies and human-technology interactions are transforming the world of work and lives of workers. The NSF will support research to identify the benefits and risks of new technologies, create technologies that will enrich lives in the workplaces of the future, and inform education and lifelong learning for tomorrow’s workforce.

### THE VITAL ROLE OF GOVERNMENT DATA

The U.S. government plays a vital role in providing data about the country, the state of the economy, and the effects of public policy. Today, everyone from businesses to policymakers to families rely on government data to make informed decisions. In collaboration with Ryan Nunn of the Brookings Institution and Nicholas Eberstadt and Michael Strain of the American Enterprise Institute, economist and IPR Director **Diane Whitmore Schanzenbach**, the Margaret Walker Alexander Professor, released a report highlighting the

importance of government-collected data for a range of organizations. Through the three main sections of the report—highlighting the uses to businesses, policymakers, and families—the researchers stress the importance of public data and outline steps forward to make government-collected data even more useful moving ahead. First, they call on federal agencies to continue to address limits in existing government-collected data, such as by collecting more and better data on nontraditional jobs—such as driving for ridesharing companies—that are underrepresented in current government statistics. Second, they stress the potential for continuing to link survey data with administrative data. Finally, Schanzenbach and her co-authors call for increased synchronization across federal agencies, such as breaking down barriers that keep statistics separate from the government agencies that collect them.

### NONSTATE ARMED GROUPS AND CIVILIANS

Existing research on nonstate armed groups, from organized crime units to insurgents in civil wars, holds that civilian support is critical to their success or failure. But this research rarely defines what it means for civilians to support or cooperate with these nonstate actors. According to political scientist and IPR associate **Ana Arjona**, the existing literature also often fails to acknowledge that the relationship between nonstate armed groups and civilians is a relationship between ruler and ruled, making civilian obedience and resistance central. In *Small Wars & Insurgencies*, Arjona conceptualizes the relationship between nonstate armed groups and civilians. She suggests using the terms cooperation and noncooperation to describe civilian support, or the lack thereof, for nonstate armed groups. She then outlines three types of cooperation—obedience, spontaneous support, and enlistment—and three types of noncooperation—disobedience, resistance, and defection. She also discusses the possibility of civilian neutrality in the face of nonstate armed groups. In outlining a clear conceptualization of civilian support, Arjona argues that understanding what leads civilians to obey can lead to new understandings of how nonstate armed groups behave and how civilians respond.

### UNDERSTANDING HUMAN TRAFFICKING

For most, human trafficking is sex trafficking, including forced prostitution. However, the Victims of Trafficking and Violence Protection Act—the cornerstone of federal



From left: IPR research assistant professor Tabitha Bonilla, IPR political scientist Mary McGrath, and IPR sociologist and legal scholar Heather Schoenfeld speak with IPR education economist David Figlio, now dean of the School of Education and Social Policy, following an IPR lecture.

human trafficking legislation passed in 2000—also covers labor trafficking, including debt bondage, forced labor, and involuntary child labor. IPR research assistant professor **Tabitha Bonilla**, together with Cecilia Mo of Vanderbilt University, is investigating whether media and public opinion reflect this broader definition. Bonilla and Mo discover that labor trafficking is one of the least discussed topics in newspaper articles on human trafficking, while sex trafficking is one of the most discussed. Meanwhile, a lab experiment with 436 students showed that most thought people coerced to work in the sex industry were victims of traffickers. When told these individuals were forced into menial labor, though, only about 50 percent of participants said the individuals were trafficking victims, with another 40 percent describing them as illegal immigrants.

#### MOBILE MEDIA IN QATAR

How do people interact with mobile media in Qatar and the Arabian Gulf region? IPR mass communication scholar **Rachel Davis Mersey** examines the less-studied region in her book, *Mobile Disruptions: Lessons from Qatar and the Arabian Gulf Region in Mobile Media Content Innovation* (Routledge, 2018). Mersey and her co-authors, including Everette Dennis, the dean of Northwestern's Qatar campus, analyze public engagement with mobile media content, including

news. They also investigate how media organizations are adapting to the use of mobile media—in particular, how they are developing content uniquely designed for mobile delivery and consumption. Finally, they explore possible future directions in mobile media content strategies, as wearables and other emerging media forms enter the marketplace.

#### MEDIA HABITS OF THE TOP 1 PERCENT

The wealthiest people in the United States are more likely to vote, donate to political and nonprofit causes, and contact public officials. How are these individuals shaped by the media they consume? In a forthcoming book, tentatively titled “Well-Off, Well-Read: Media Habits of America’s 1 Percent,” **Mersey** is investigating whether the top U.S. earners consume media differently than the other 99 percent. She argues that the media play essential roles in shaping people’s worldviews, which are particularly important for the wealthy, given their outsized political influence. The book is not about what makes people rich, but what shapes their perspectives and how their perspectives shape our country and its priorities.

#### GOVERNMENT VS. MEDIA IN ARGENTINA

Under the administration of President Cristina Fernández from 2008–15, the Argentine government took a confrontational stance toward what it deemed

the “opposition media.” In the *International Journal of Communication*, communication scholar and IPR associate **Pablo Boczkowski** and Eugenia Mitchelstein of the Universidad de San Andrés in Argentina examine the Argentine government’s confrontational tactics toward the media. First, Fernández’s administration and its allies launched public relations attacks and placed economic and regulatory restrictions on the media perceived to be against it. The government also created public advertisements to support small, pro-government news outlets. Boczkowski and Mitchelstein set out to understand how these attacks affected the agendas of the opposition media outlets as well as their audiences’ news preferences. The researchers conducted content analyses of the media agendas and preferences of audiences at three news sites in Argentina in 2010–11, as well as a survey of news consumers and 50 in-depth citizen interviews. The researchers find that the media outlets and their audiences, though all targeted by the government, did not react uniformly. Instead, their results suggest that during a government-media confrontation, different ideologies and commercial orientations of the targeted news outlets can lead to differing effects.

### INTEGRATED MEDIA EFFECTS IN CHINA

Communications research often focuses on one medium—such as looking at either social media use or online news consumption. But people in today’s digital media environment use and are influenced by multiple systems simultaneously, argue communications researcher and IPR associate **Michelle Shumate** and Northwestern colleague Jiawei Sophia Fu in *The Information Society*. Building on existing research on media environments, Shumate and Fu introduce the concept of integrated media effects to capture how media systems are connected to one another. They then test these integrated media effects by studying the relationships between news media visibility, social media visibility, and hyperlinking patterns among over 400 nongovernmental organization (NGO) websites in China. They determine that NGOs with greater news media visibility and more social media followers are linked to significantly more than other NGOs. They also find that NGOs with a similar number of social media followers are more likely to link to each other. The researchers’ findings suggest that news media systems and social media systems are related to the formation of hyperlink networks—when organizations and individuals link to one another. The results provide support for Fu and Shumate’s concept of integrated media

effects that challenge the status-quo research that often focuses on just one medium at a time.

### DIGITAL CIVIC ENGAGEMENT

With the rise of the internet, interactions between individuals and communities have changed, and researchers have argued that civic engagement has eroded. In *Journalism & Mass Communication Quarterly*, social policy professor and IPR associate **Dan Lewis**, along with Northwestern colleague Jacob Nelson and Ryan Lei of New York University, argue that the internet has not brought about the decline of civic engagement, but rather has created new forms of civic engagement. To test this, Lewis and his colleagues conducted a multiwave survey of students at a private university in the Midwest, with 288 participants completing all three waves of the survey. Their analysis reveals that today’s students are much more civically engaged online than offline. They also find that civic education matters: Students who take classes involving political issues—what the authors call “civic learning courses”—are more civically engaged online than those who do not. These students are also more likely to continue participating in offline civic engagement over time, such as by calling or writing to an elected official, than students who do not take civic learning courses. The authors ultimately suggest that, though younger people today are more likely to be engaged through social media than by writing a letter, they are far more civically engaged than many have suggested. They also stress the role of education, as civically minded curricula have the power to increase students’ civic engagement during college and beyond.

### DEMOCRACY IN AMERICA

In their book, *Democracy in America? What Has Gone Wrong and What We Can Do About It* (University of Chicago Press, 2017), political scientist and IPR associate **Benjamin Page** and Martin Gilens of Princeton University present an indictment of today’s politics, pointing specifically to how the American public has little say in policy decisions. After analyzing approximately 2,000 federal policy decisions over 20 years, Page and Gilens found that affluent Americans, corporations, and organized interest groups have been much more successful than regular Americans at getting their preferred policies passed. To improve U.S. democracy, Page and Gilens call for giving citizens more opportunities to shape what their government does, asserting that the United States must reform governing

institutions, curb the power of money in politics, and change the way it chooses candidates and conducts elections. They suggest public funding of elections through “democracy vouchers” to curtail the power of money in politics. To encourage democratic participation, they call for universal voter registration, Election Day holidays, and reforms that would yield more attractive candidates. Page is the Gordon Scott Fulcher Professor of Decision Making.

### THE STATE, FIRMS, AND PROPERTY RIGHTS

Research on property rights usually focuses on states and how they approach property protection, often overlooking if, and how, private-sector actors use state institutions. In *American Political Science Review*, **Gans-Morse** argues that the existence of formal state legal institutions, or the supply of legal institutions, does not guarantee that firms will rely on the state to protect their property. Rather, private-sector firms often turn to illegal means, such as violence or corruption, to protect their property. In his research, Gans-Morse outlines a theory for whether and when private firms pursue legal strategies to protect their property rights. Focusing on post-Soviet Russia as a case study, Gans-Morse conducted interviews with private firms, lawyers, and private security agencies, and also conducted a survey of Russian firms. Given Russia’s history of state-led development, Gans-Morse explains the expectation that firms would increasingly use legal institutions as the state increasingly supplied them. Instead, he argues that Russian firms’ adoption of legal strategies came from the demand side, such as when illegal methods became less effective. The results push back on the argument that studies of property rights and the rule of law should focus predominantly on the effectiveness of state institutions. Instead, Gans-Morse suggests that looking at private-sector strategies is essential to understanding property rights in states with limited legal capacity, or states where some level of legal capacity exists but is not sufficient to ensure that all private firms use legal strategies.

### DEMOCRACY IN POST-COMMUNIST EUROPE

Since the collapse of communism in the late 1980s and early 1990s, researchers have produced an abundance of assessments and theories on the fate of democracy in post-communist Europe. In a chapter of *Democracy and Democratization in Post-Communist Europe* (Routledge, 2017), political scientist and IPR associate **Andrew Roberts** traces the path of this research and highlights

the most influential theories on the collapse of communism, regime outcomes, and the shift to democracy. Roberts highlights 1989 as an inflection point and takes a nuanced look at the diversity of regime outcomes that took hold in post-communist Europe, from complete democratization in countries such as the Czech Republic to places such as Russia, which seemed to be democratizing but quickly reverted to non-democratic systems. Seeking to account for the rapid shift from communism to post-communism in 1989, Roberts acknowledges the standard account, which broadly focuses on civil opposition and a loss of legitimacy. He then outlines more complete theories that emphasize cascading effects and tipping points, both at the individual level, such as more and more people gathering in the streets in protest, to the international cascading effects of one country’s communist regime falling and others following soon after.

### THE PRUDENT INVESTOR RULE AND MARKET RISK

The prudent-investor rule emphasizes risk management rather than risk avoidance, directing trustees to implement investment strategies where risk and returns match a trust’s size. Legal scholar and IPR associate **Max Schanzenbach** and Harvard University’s Robert Sitkoff study how the prudent-investor rule enacted in every state over the past 30 years affected how banks allocate assets and manage market risk. They examined reports of bank trust holdings and fiduciary tax returns from before and after the rule change. The researchers first looked at whether trustees were sensitive to risk tolerance when allocating assets. They find that stock holdings increased following the rule’s enactment, but not among banks with average trust account sizes in the lowest 25th percentile, suggesting a sensitivity to risk. Next, the researchers looked at responses to increased stock holdings and determined that trustees increasingly rebalanced their portfolios—or realigned the weight of the portfolio between stocks and bonds—to manage the additional risk exposure brought about by increased stock holdings. Taken together, these findings suggest a coherent response to introduction of the prudent-investor rule in trust investment law. The researchers argue that recent concerns over failed risk management by trustees, which have led to calls to repeal or reform the rule, are not borne out by the evidence of risk tolerance seen in the study. The results are published in the *Journal of Empirical Legal Studies*. Schanzenbach is the Seigle Family Professor of Law.

NATIONAL ACADEMY OF SCIENCES

On November 17, IPR economist **Charles F. Manski** lectured at the National Academy of Sciences on uncertainty in policy analysis and scientific research.

ur M. Sackler  
C O L L O Q U I A  
OF THE NATIONAL ACADEMY OF SCIENCES

**RESEARCH TOPICS**

- Improvements to experimental design and quality
- Data use, quality, and cost in policy research
- Facilitation of research networks and best practices
- Interdisciplinary training in methodological innovation

**GUN LAWS AND CRIME RATES**

How do right-to-carry laws in the United States affect crime rates? Though gun laws have become a source of heated public debate in the wake of mass shootings, little is known about whether such laws deter crime or lead to more of it. Looking at right-to-carry (RTC) gun laws, which allow individuals to carry concealed handguns, IPR economist **Charles F. Manski** and John Pepper of the University of Virginia find no academic consensus on their effects: Despite dozens of studies using the same datasets, researchers have arrived at very different conclusions. In the *Review of Economics and Statistics*, Manski and Pepper highlight the role of varying assumptions used in such analyses and explain the importance of discussing how these assumptions affect statistical results. Manski and Pepper conducted their own original analysis of how RTC laws affected crime in Virginia, Maryland, and Illinois, finding the effects vary. Under some assumptions, RTC laws appear to have no effect on crime rates. Under others, RTC laws seem to increase rates for certain crimes, decrease them for some crimes, and have varying effects for others. While the results provide no easy answer, they highlight why researchers using the same data can arrive at such vastly different results and how different assumptions shape findings. Manski is the Board of Trustees Professor in Economics.

**MEASURING PROBABILISTIC EXPECTATIONS**

Prior to the 1990s, economists largely shied away from trying to collect data on individuals' expectations. Instead they either tried to infer expectations from choice behavior or assumed that people hold particular expectations. More recently, economists have set out to measure individuals' probabilistic expectations for uncertain events, adding to a growing body of evidence on the expectations held by large populations. In an IPR working paper, **Manski** outlines the history of how

economists came to measure probabilistic expectations, moving from reliance on assumptions to actual data measurement. He turns to applications of empirical expectations data for three types of macroeconomic events: expectations for stock (equity) returns, expectations for inflation, and professional forecasts by macroeconomists. In original research that captured Americans' expectations for their equity returns in the coming year in probabilistic terms, Manski found that empirical data on stock performance expectations differed starkly from traditional surveys that classified respondents as feeling more bullish or bearish about the stock market. Going one step further, Manski discusses how equity expectations data might provide insight into portfolio decisions. The research highlights how measuring, rather than assuming, expectations can better inform studies of expectations formation in macroeconomic policy analysis. While he applauds economists' willingness to study the topic, Manski also outlines his concerns over a lack of empirical research and the potential proliferation of models in that void.

**CENSUS DESIGN, COSTS, ACCURACY**

As the 2020 U.S. Census approaches, bureau officials must finalize census design, which means determining what operational programs will be used to collect census data. These decisions might include whether to build address lists using in-office technologies or by canvassing in the field, whether to collect data via paper forms or online, and whether to use administrative records and/or third-party data to follow up with people who do not answer—known as non-response follow-up. In making these decisions, the Census Bureau must consider the outputs and accuracy of different types of operational programs. For example, in terms of output, how many housing units designated for non-response follow-up can be classified as vacant based on administrative records, without any need for in-person follow-up? Additionally, in terms of accuracy, what fraction of these housing units will actually be occupied and therefore mistakenly classified as vacant? Since the exact accuracy of each program cannot be known ahead of time, it must instead be forecasted. In a project supported by the National Science Foundation (NSF) and the U.S. Census Bureau, IPR statistician **Bruce Spencer** is collaborating with Census Bureau researchers to forecast the accuracy parameters of different census operational programs at both the national and state levels. This will ultimately help specify error distributions for the state population counts. Additionally, in an IPR working paper with former IPR

graduate research assistant Zachary Seeskin, now at NORC, the two researchers contrast the costs of attaining accuracy with the consequences of imperfect accuracy for census data. They detail how inaccuracy rates in the 2020 Census have the potential to cause quite large distortions. For instance, an average error of 2 percent for state populations could result in expected federal funding shifts of more than \$50 billion over 10 years and expected shifts in the apportionment of as many as seven House seats.

### THREE EDUCATION RESEARCH CHALLENGES

Education research has gained scientific rigor, momentum, and respectability since 2000, according to IPR education researcher and statistician **Larry Hedges**. In the *Journal of Research on Educational Effectiveness*, he details the impact of the U.S. Department of Education's Institute of Education Sciences (IES), created in 2002, on the establishment of rigorous experimental methods to study education, as well as the development of well-trained researchers and the availability of adequate funding. Hedges warns, however, that the methods and practice of education research must now meet three major challenges. The first, shared with other branches of scientific research, is the replication crisis, which he expects to affect education research soon. The second challenge is to better support the generalizability of



**LARRY HEDGES, CHAIR**

Most researchers and academics tend to stick with the research methods they know, learned mainly in graduate school—even though they might not represent current best practices or the most appropriate method. This is why statistician and education researcher Larry Hedges established IPR's Center for Improving Methods for Quantitative Policy Research, or Q-Center. The work of interdisciplinary Q-Center faculty often overlaps with IPR's education and social policy researchers.

education research. Hedges cautions researchers against assuming their results are generalizable and notes that while employing random, or probability, sampling is the “gold standard” to insure generalizable results, it is often not possible. The final challenge is to match research designs to the complexity of the interventions being studied. He offers some examples of designs for multiple possible treatment components that are applied to some subjects and not others, or to some subjects as needed during the experiment. Hedges concludes that education researchers need to improve their methods and respond to the challenges he outlines, and he recommends open-mindedness and humility—rather than defensiveness and condescension—when communicating research findings to the public and policymakers. Hedges is the Board of Trustees Professor of Statistics and Social Policy and of Psychology.

### EXAMINING THE ‘REPLICABILITY CRISIS’

From medicine to economics, many research fields are facing a “replicability crisis” today, in which researchers have not been able to replicate major findings from existing studies. While scholars agree on the importance of replicability in research, they find little consensus on how to evaluate how well a series of studies replicates another. Across research fields, different papers define replication differently and use different criteria to measure replication without any clear standards of what replicability means. Researchers find little consistency when it comes to designing replication studies. In an ongoing research project, **Hedges** is working to develop a coherent statistical framework for studying replication. Doing so will allow for a more systematic approach of responding to the so-called replicability crisis, from more consistently defining what it means to be “replicable” to trying to generate greater consistency in the design of replication studies and their statistical analyses. Hedges has several journal articles set to be published on the topic. This project is supported by IES.

### REPLICABILITY IN CLINICAL PSYCHOLOGY

Concern about replicability in experimental psychology is growing, yet not all areas of psychology have fully participated in the conversation. In *Perspectives on Psychological Science*, psychologist and IPR associate **Jennifer Tackett** and her colleagues explore why clinical psychology and related fields, such as counseling, psychiatry, epidemiology, social work, and school psychology, have remained largely outside of the discussion of replicability. The authors point out that

in contrast to other areas, such as social psychology, clinicians are used to relying on correlational, rather than experimental, effects. Because they often work with small numbers of subjects who cannot be easily recruited, they expect noisy and imperfect data. Tackett and her co-authors suggest methods for accommodating the lessons learned about replicability and questionable research practices in other domains of psychological research to the specific conditions of clinical psychology. They review and ultimately recommend measures for clinical science researchers, such as reducing questionable research practices, using preregistration and open data approaches, and increasing statistical power. They also note that the replicability movement can also learn from clinical science, offering seven recommendations that include accommodating sensitive data and thinking “meta-analytically.”

**ECONOMICS OF SCALING UP**

When researchers conduct randomized controlled trials (RCTs) of social programs, the hope is that smaller-scaled programs that appear promising in initial RCTs can then be implemented at a larger scale with a larger set of resources. But how can it be known whether a social program will be equally successful at scale without having been tested at scale? IPR economist **Jonathan Guryan** proposes a way to measure the economics of scaling up in an IPR working paper, along with Jonathan Davis, Kelly Hallberg, and Jens Ludwig of the University of Chicago. Their model focuses on one scale-up challenge specifically: For most social programs, labor is a key input, yet as social programs scale up and seek new hires, a search problem can arise. This results in a situation where, as programs are scaled, either the average cost of labor must go up or program quality will decline at fixed costs. For instance, a tutoring program that is being scaled up will eventually face a labor supply problem where the program will either need to start offering higher pay to attract high-quality tutors, or will



Elizabeth Tipton of Columbia University, a former IPR graduate research assistant, lectured on how to design studies with generalizability on April 26.

have to accept lower-quality tutors at lower pay. While acknowledging that exact costs of scale-up cannot necessarily be known, Guryan and his co-authors show that it is possible to create and test a program at a smaller scale while still learning about the input supply curves, such as the labor supply curve, facing the firm at a much larger scale. This can be done by randomly sampling the inputs the provider would have hired if they operated at a larger scale. Highlighting the specific case of a Chicago tutoring program they are evaluating and trying to scale up, the researchers show how scale-up experiments can provide insights and confidence that cannot be derived from simply scaling up without an experiment at a modest scale.

**METHODS FOR SUBNATIONAL ANALYSES**

How do national institutions, social differences, and other important social and political variables both shape and respond to the dynamics at the local level? To answer this complex question, IPR political scientist **Rachel Beatty Riedl** proposes four different types of research designs to illuminate subnational variation in relation to national-level structures within and between countries. Pointing to examples of each design type, she looks specifically at the national-local interaction between political party competitiveness and local differences in ethnicity, religion, and socioeconomic status (SES) to assess how different religious groups are politically engaged in Kenya, Uganda, and Tanzania. She delineates a two-level interaction approach that focuses on the relationship between

national and local institutions: a hierarchical model that examines how influences between levels, from the most local to the national, work both from the bottom to the top and the top to the bottom. Riedl notes that cross-border comparisons between countries can be used as quasi-experiments. She finds that by using all of these methods, she is able to uncover the intricate relations and influences that lead to differences in how various religious groups in these countries respond to political conditions. The research appears in *American Behavioral Scientist*.

### SINGLE-CASE DESIGN EFFECT SIZES

The identification of effective educational interventions is central to educational policy. Randomized experiments are the first design considered in studying effectiveness, but they are not always feasible or ethical. Researchers then turn to quasi-experimental methods to estimate effects. In research supported by IES, Hedges focuses on single-case design (SCD), a type of quasi-experiment often used in the fields of autism, learning disorders, school psychology, special education, developmental disorders, and remedial education, as well as in speech, language, and hearing research. He is developing standardized effect-size metrics for SCDs that will allow researchers to use the same measurement scale as is used in other experimental designs—allowing easy comparison between effects in different types of experiments. This project extends earlier work done with the late William Shadish of the University of California, Merced, on SCD effect size estimators.

### PROTECTING PRIVACY OF STUDENT DATA

Over the last decade, the U.S. Department of Education has invested more than \$600 million to help states improve their educational longitudinal data systems (SLDSs), including student background data and assessment data. SLDSs today include longitudinal data on millions of students, which should make them a rich source of data for education researchers. However, the Family Education Rights and Privacy Act (FERPA) has placed restrictions on accessing this data, making it difficult for independent researchers to use it. A research project led by Hedges, and supported by the NSF and IES, continues to examine the balance between protecting privacy and allowing for effective education research. A previous study led by Hedges, which used SLDS data from 11 states and 5 million students, found substantially different results for analyses using masked data, which scrambles or hides some original data to protect sensitive information,

versus unmasked data. Subsequent analyses have shown that the data masking procedures used in several states have led to the deletion of a large, non-random portion of the SLDS data, which could have implications for research findings based on these datasets. Hedges' current project evaluates several approaches to statistical disclosure control that could both make SLDS available to researchers and comply with standards set out by FERPA. He and his collaborators argue that these approaches must meet three criteria: 1) they must assure confidentiality; 2) they must preserve information about relationships in the data; and 3) the protected data must be open to conventional analyses by social science researchers. As a next step, the researchers will evaluate how well two competing general approaches meet the above criteria.

### THE PROMISE OF ADMINISTRATIVE DATA

In recent years, data collection, storage, and analysis capabilities have grown exponentially. Taking advantage of these improvements, governments across the world have developed large-scale comprehensive datasets ranging from health and education data to tax programs and workforce information. Governments have established statistics offices dedicated to maintaining and using data to produce official statistics about their populations and about specific programs. This has been especially true in the field of education, where, for instance, the U.S. Department of Education has invested over \$750 million to help states build, populate, and maintain longitudinal education datasets. In *Education Finance and Policy*, IPR education economist David Figlio, IPR research associate Krzysztof Karbownik, and Kjell Salvanes of the Norwegian School of Economics explain how these data, though collected for administrative purposes, present exciting new research opportunities. The researchers outline the challenges associated with the use of administrative data in education research, as well as its immense promise. Existing challenges include the fact that administrative data are collected for administrative purposes rather than for research, meaning that the variables captured in administrative data are not always conducive to answering specific research questions. They also acknowledge technical barriers to accessing and analyzing administrative datasets. The benefits of administrative data in education include the reduced need for expensive data collection via surveys as well as the ability to analyze population data. Looking ahead,



Following a presentation at a Fay Lomax Cook Monday Colloquium, IPR statistician Bruce Spencer (right) follows up on a point about his work on the South African census with IPR education researcher and statistician Larry Hedges.

the authors acknowledge practical and technical issues that limit the use of administrative data today, and call on their fellow researchers to highlight the potential for mutually beneficial collaboration between researchers, practitioners, and policymakers. Figlio is the Orrington Lunt Professor of Education and Social Policy and of Economics.

#### IES-SPONSORED RESEARCH TRAINING

IPR faculty emeritus **Thomas D. Cook**, a social psychologist, led the 2017 Summer Research Training Institute on Quasi-Experimental Designs, sponsored by IES' National Center for Education Research. Held from July 31–August 11 in Evanston, the workshop presented a variety of quasi-experimental designs, which employ methods other than randomization to compare groups. The 2017 session placed special emphasis on analysis of data gleaned from the quasi-experimental designs and employed both lectures and hands-on training. Participants were able to improve their methodological skills while working with education researchers from around the country. Other workshop faculty included former IPR graduate research assistant Vivian Wong, now at the University of Virginia, and former IPR postdoctoral fellows Coady Wing, now at Indiana University, Peter Steiner of the University of Wisconsin–Madison, and Stephen West of Arizona State University.

#### PROMOTING METHODOLOGICAL INNOVATION

During the year, IPR hosted four speakers from a variety of disciplines as part of the Q-Center Colloquia Series. Organized by **Hedges** and IPR graduate research assistant **Jacob Schauer**, the series showcases and promotes discussion of methodological innovation. Speakers included **Victoria Stodden** of the University of Illinois at Urbana-Champaign, who presented a new framework for statistical analysis called CompareML. **Daniel Almirall** of the University of Michigan discussed adapting sequential multiple assignment randomized trials, or SMART, a type of multi-stage randomized trial design, to stable clusters of individuals. Another presentation, by **Linda Collins** of Pennsylvania State University, examined an alternative to the randomized controlled trials so frequently used in the development and evaluation of health and educational interventions; the framework, known as multiphase optimization strategy, or MOST, includes additional steps before the RCT. **Rebecca Maynard** of the University of Pennsylvania examined model cases of evidence use—and misuse—in policy development studies and suggested guidance in sorting, sifting, and implementing evidence in meaningful ways.



IPR associate **Mary Pattillo** (right), a sociologist and African American studies researcher, is investigating the impact of fees and fines on the criminal justice system, examining what variables—including race—are at play.

## RESEARCH TOPICS

- Community policing and criminal justice
- Prisons and mass incarceration
- Race and income segregation

### ANALYZING MISDEMEANOR FINES

IPR associate **Mary Pattillo**, Harold Washington Professor of Sociology and African American Studies, is currently in the third year of an extensive five-year project investigating the impact of fees and fines on the criminal justice system in eight states, including Illinois. The study is creating a “legislative landscape” of the statutes that impose monetary sanctions on those convicted of low-level felonies and misdemeanors in each state. Pattillo’s work, which focuses on Illinois, includes interviews with people who have been assessed fines and fees, observations of courtrooms, and surveys of court personnel, including judges, lawyers, and clerks. In the fourth year of the process, Pattillo and other researchers plan to conduct a quantitative analysis examining all those who received fees and fines to determine which variables, including race, are at play.

### BUILDING THE PRISON STATE

In her new book, *Building the Prison State: Race and the Politics of Mass Incarceration* (University of Chicago Press, 2018), IPR sociologist **Heather Schoenfeld** uses an in-depth case study of Florida, a state with one of the largest prison populations, to examine the development of mass incarceration in the United States from 1950 to the present. In the United States, the rise of mass incarceration is usually depicted as a result of politicians deciding to get “tough on crime,” but Schoenfeld notes that many states had tough-on-crime cultures early on when incarceration rates were much lower. So, what changed? Drawing on archival evidence and interviews with key stakeholders in Florida, Schoenfeld focuses on capacity, showing how the government’s ability to detect crime and punish individuals grew in the 1970s and 1980s due to the professionalization of policing, increased funding, and eventually the building of more prisons. Schoenfeld is also working on a project entitled “The Changing Tides of Mass Incarceration: Explaining State Variation in Decarceration Reforms,” which examines the processes leading to state policies aimed at decreasing prison populations. The three-year, National

Science Foundation-funded project began in fall 2017, and its goal is to help lawmakers, interest groups, and reform advocates create the conditions necessary to substantially reduce incarceration.

### MATERNAL INCARCERATION AND YOUTH HEALTH

How does having a mother who is incarcerated affect the healthcare children receive throughout their lives and into adulthood? In *Preventive Medicine*, IPR associate **John Hagan**, a sociologist and legal scholar, and Holly Foster, a sociologist at Texas A&M University, also looked at how being unemployed or facing economic insecurity as a young adult affects the relationship between incarceration and healthcare. Children of mothers who are incarcerated may be at particular risk of losing parental or foster care health insurance coverage during early adulthood, while also lacking money to pay for care. Using a nationally representative U.S. panel study, Foster and Hagan find that young adult children of incarcerated mothers are less likely to get the healthcare they need. The findings provide important benchmarks for assessing the effects of the Affordable Care Act, as well as efforts to change or repeal the law. Hagan is the John D. and Catherine T. MacArthur Chair of Law and Sociology.

### POOR NEIGHBORHOODS AND DISADVANTAGE

In a 2017 report on intergenerational poverty, IPR sociologist **Lincoln Quillian** discusses the role of poor neighborhoods in intergenerational poverty. Living in a poor neighborhood is associated with exposure to crime and violence and reduced levels of happiness. Children who grow up in poor neighborhoods have worse health, lower educational attainment, and reduced income as adults compared with similar children that grow up in more affluent neighborhoods. There is strong continuity of neighborhood income level between parents and children, meaning many children that grow up in poor neighborhoods will live in poor neighborhoods as an adult. African American and Hispanic families are much more likely than whites to live in poor neighborhoods, even after accounting for their household income. Through worsening life chances across generations, neighborhood poverty contributes to the intergenerational transmission of poverty. Quillian outlines some of the more effective policies to reduce neighborhood poverty, focusing on policies to reduce racial and income segregation. Housing vouchers that facilitate moves to more affluent neighborhoods and efforts to combat exclusionary zoning would reduce the number of high-poverty neighborhoods and could significantly improve quality of life for many disadvantaged families.

### SEGREGATION AND CONTEXTUAL ADVANTAGE

How does segregation contribute to inequality?

**Quillian** provides a formal demographic model of how segregation affects an individual's social context—a neighborhood, school, or even social network. Published in *RSF: The Russell Sage Foundation Journal of the Social Sciences*, Quillian's model builds on the idea that better contexts provide people with contextual advantage and that poorer social contexts result in disadvantage. He includes two groups that differ along a dimension of average advantage and disadvantage—for example, two racial groups that differ in their poverty rates. His model illustrates how contextual advantages and disadvantages from segregation are affected by demographic conditions like group relative size and the rates of group advantage and disadvantage. Quillian outlines a series of 11 conclusions from the theoretical model and then applies the model to understanding racial segregation effects in U.S. cities.

### RACIAL DISCRIMINATION AND HIRING

Since 1990, the United States has experienced some positive racial trends, including declines in residential segregation and the black-white test score gap. According to a meta-analysis of 21 studies, however, there has been no change in rates of hiring discrimination against African Americans between 1990 and 2015. Together, the field experiments represent almost 56,000 applications submitted for roughly 26,000 positions. With funding from IPR and the Russell Sage Foundation, **Quillian** and his colleagues find that whites received on average 36 percent more callbacks to interview than African Americans with equal job qualifications. Whites also had 24 percent more callbacks than Latinos. The results, published in the *Proceedings of the National Academy of Sciences*, support the need for efforts to enforce anti-discrimination laws and suggest a continued need for compensatory policies like affirmative action in hiring. Quillian is currently working on a meta-analysis comparing rates of hiring discrimination between the United States and Europe. Based on 97 field experiments, he finds substantial variation in hiring discrimination across nine countries. France has the highest rates of discrimination, and Canada, the United States, the Netherlands, Norway, and Germany are among those with the lowest rates. The research received much attention from both national and international media outlets around the world, including the Guardian, New York Times, and Wall Street Journal.

### PUBLIC SAFETY VS. COMMUNITY TRUST

Citizens depend on police to provide public safety while maintaining the trust of the community. How can democratic societies balance these two often conflicting aims, given citizens' often divergent views over basic tenets of criminal justice policy? IPR economist **Charles F. Manski**, the Board of Trustees Professor of Economics, and Carnegie Mellon criminologist Daniel S. Nagin seek to provide a model that can help. In *Proceedings of the National Academy of Sciences*, Manski and Nagin outline a formal model of optimal policing that can be used to resolve tensions between public safety and community trust—and that can also help a public that is prone to privileging one over the other, depending on the circumstances, to keep both in mind. They provide a structure to weigh the costs and benefits of confrontational forms of proactive policing, such as stop, question, and frisk. They built their model with a fundamental tradeoff of policing tactics in mind: How much does a tactic reduce crime and how much does it interfere with innocent people's lives? And how much does it have a disproportionate impact across racial and ethnic groups? They also use New York City's experience with "stop and frisk" and an increase in Chicago homicides as lenses for exploring the model's policy implications.



IPR's urban policy and community development faculty investigate the shifting urban landscape, considering social, economic, and political forces. They seek to understand the real-world sources and consequences of the pressing problems that cities and urban dwellers face, from poverty and racial discrimination to crime and policing. This program overlaps with other IPR research areas, including Education Policy and Poverty, Race, and Inequality.

### FAIRNESS IN POLICING

While research on public support for the police has documented the role of procedural justice—or fairness in the relationship between police and the public—in shaping public perception of police legitimacy and whether or not citizens cooperate, less attention has been paid to how to get police officers to act under the principles of procedural justice. In *Police Quarterly*, IPR faculty emeritus **Wesley G. Skogan** and co-author Maarten Van Craen of the Leuven Institute of Criminology in Belgium address the challenging, multifaceted issue of fostering procedural justice internally among police officers. With support from the John D. and Catherine T. MacArthur Foundation and the Joyce Foundation, the authors examine the relationship between fair supervision and fair policing. The study results indicate that perceived internal procedural justice is directly related to support for external procedural justice, and also indirectly, through trust in citizens. The findings suggest that supervisors can positively influence the way officers deal with citizens by providing good examples and setting the right tone in their own leadership practices.

### USE OF FORCE BY POLICE

Recent shootings by police in the United States emphasize that legitimate policing is difficult to achieve and highlight concerns over use of force by police. In *Criminal Justice and Behavior*, **Skogan** and Van Craen examine the relationship between fair supervision and officers' support for restrictions on their use of force. They find that a supervisor modeling good behavior can offer an important link between the two. Their results suggest that fair supervision fosters support for restraint in the use of force through greater “moral alignment” with citizens and increased trust in the public. The research also suggests that police organizations can contribute to encouraging economy in the use of force by implementing supervisory practices that reflect the principles of procedural justice. With support from the John D. and Catherine T. MacArthur Foundation, the Joyce Foundation, and the Research Foundation-Flanders, Skogan and his co-author examine how supervision might contribute to a better justified use of force by the police.

### THINKING FAST AND SLOW

For nearly a decade, IPR economist **Jonathan Guryan** has been following the participants of Becoming a Man (BAM), a group cognitive behavioral therapy program for at-risk Chicago youth designed by local nonprofit Youth Guidance. Instead of emphasizing education or punitive

methods to deter crime, cognitive behavioral therapy-based programs like BAM offer strategies to teach kids to slow down and think before they act. Guryan and his colleagues' research shows that BAM reduced arrests for violent crimes by half and increased high school graduation rates by nearly 20 percent for the Chicago Public School students in the program. The program, which now includes several thousand young men in seventh through twelfth grade in Chicago schools, provides mentorship and group role-playing lessons. The researchers' findings offer policymakers evidence that investing in social intervention programs can have positive results. BAM's results have inspired others—even President Barack Obama, who started the My Brother's Keeper initiative after attending a 2013 BAM session. In recognition of its effectiveness, Chicago Public Schools now uses federal Title I dollars to support and expand efforts to implement it in high schools around the city. The study was published in *The Quarterly Journal of Economics*.

### SOCIAL NETWORKS AND GUN VIOLENCE

Does gun violence spread through social networks through a process of social contagion? Using an epidemiological analysis of a network of more than 138,000 people in Chicago, IPR sociologist **Andrew Papachristos** and his colleagues determine that social contagion—the spread of behavior from one person to another—was responsible for 63 percent of the 11,123 gunshot violence incidents in Chicago that occurred between 2006 and 2014. In their study, published in *JAMA Internal Medicine* and funded by the John D. and Catherine T. MacArthur Foundation and the National Science Foundation, they learn that the victims of gun violence were shot, on average, 125 days after their “infector”—or the person most responsible for exposing the subject to the violence—was shot. Models that incorporate social contagion and demographic factors, such as age, sex, and neighborhood, predicted future gunshot subjects better than models based on social contagion or demographics alone. The research suggests gunshot violence follows an epidemic-like process of social contagion that is transmitted through networks of people by social interactions. Additionally, violence prevention efforts that account for social contagion in addition to demographics may have the potential to prevent more shootings than efforts that solely focus on demographic risk factors.

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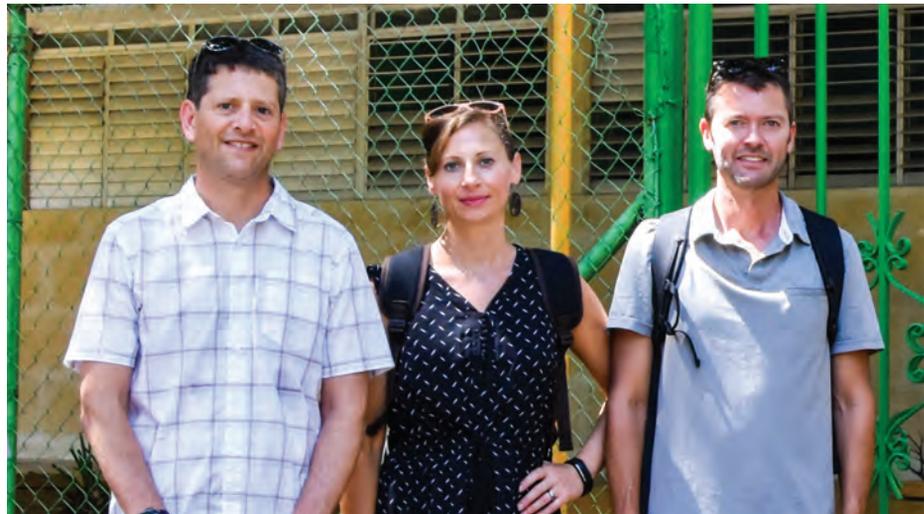
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Several IPR faculty traveled to Cuba in June to explore possible research opportunities with Cuban peers. From left: Pediatrician and IPR associate Craig Garfield, IPR anthropologist Rebecca Seligman, and IPR biological anthropologist Thomas McDade.

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### RACHEL BEATTY RIEDL

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### REBECCA SELIGMAN

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“Many immigrant families include both publicly insured and uninsured children, and uninsured children do not have the same healthcare utilization as their insured siblings. To the extent possible, pediatricians and other healthcare professionals should inquire about the healthcare access of all children in the family.”

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“These findings lead us to temper our optimism regarding racial progress in the United States. At one time it was assumed that the gradual fade-out of prejudiced beliefs, through cohort replacement and cultural change, would drive a steady reduction in discriminatory treatment. At least in the case of hiring discrimination against African Americans, this expectation does not appear borne out.”

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### SERA YOUNG

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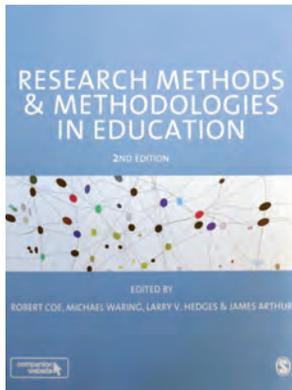
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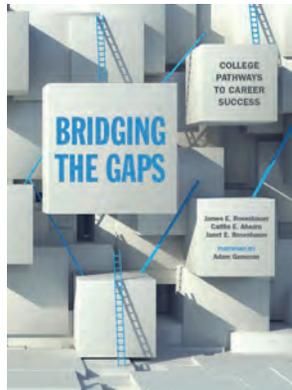
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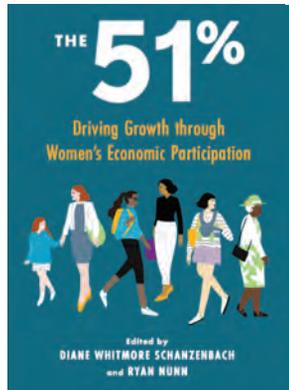
FACULTY FELLOWS



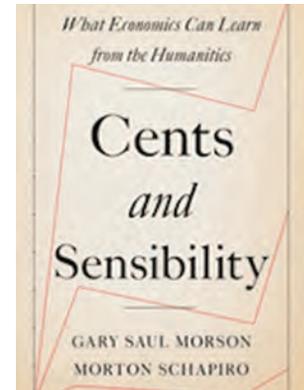
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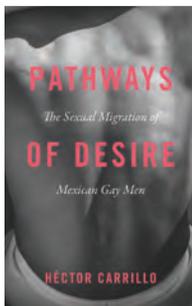


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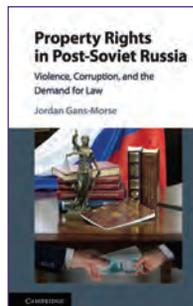


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FACULTY ASSOCIATES AND EMERITI



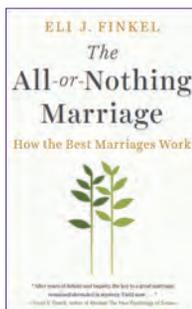
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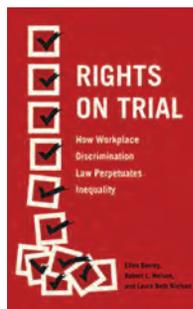
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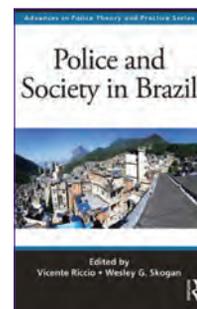
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*Consistent and Cautious: Congressional Campaigning on the Web in 2016* by **James Druckman**, *Martin Kifer*, and *Michael Parkin* (17-01)

*Birth Order and Delinquency: Evidence from Denmark and Florida* by Sanni Breining, Joseph Doyle, Jr., **David Figlio**, **Krzysztof Karbownik**, and Jeffrey Roth (17-02)

*University Innovation and the Professor's Privilege* by Hans Hvide and **Benjamin Jones** (17-03)

*Sibling Spillovers* by Sandra Black, Sanni Breining, **David Figlio**, **Jonathan Guryan**, **Krzysztof Karbownik**, Helena Skyt Nielsen, Jeffrey Roth, and Marianne Simonsen (17-04)

*The Evolution of Political Behavior Research, 1980–2009* by *Joshua Robison*, Randy Stevenson, **James Druckman**, Simon Jackman, Jonathan Katz, and Lynn Vavreck (17-05)

*Unbiased? Race, Gender, and Sport Effects in University Medical Staff's Perceptions of Injured Student-Athletes* by **James Druckman**, *Sophie Trawalter*, and Ivonne Montes (17-06)

*How Incivility on Partisan Media (De-)Polarizes the Electorate* by **James Druckman**, *Samuel Gubitz*, Matthew Levendusky, and *Ashley Lloyd* (17-07)

*Racial Bias in Sport Medical Staff's Perceptions of Others' Pain* by **James Druckman**, *Sophie Trawalter*, Ivonne Montes, *Alexandria Fredendall*, Noah Kanter, and *Allison Rubenstein* (17-08)

*Reducing Inequality by Dynamic Complementarity: Evidence from Head Start and Public School Spending* by Rucker C. Johnson and **Kirabo Jackson** (17-09)

*Survey Measurement of Probabilistic Macroeconomic Expectations: Progress and Promise* by **Charles F. Manski** (17-10)



IPR economist Matthew Notowidigdo focuses on how health insurance and healthcare have changed since the passage of the Affordable Care Act.

*Political Protesting, Race, and College Athletics: Why Diversity Among Coaches Matters* by **James Druckman**, **Adam Howat**, and **Jacob Rothschild** (17-11)

*Unwelcome Guests? The Effects of Refugees on the Educational Outcomes of Incumbent Students* by **David Figlio** and Umut Özek (17-12)

*Gender Policy Feedback: Perceptions of Sex Equity, Title IX, and Political Mobilization Among College Athletes* by **James Druckman**, **Jacob Rothschild**, and Elizabeth Sharrow (17-13)

*Passing the Buck in Congress: The Extent and Effectiveness of Blaming Others for Inaction* by David Doherty and **Laurel Harbridge-Yong** (17-14)

*What Does (Formal) Health Insurance Do, and for Whom?* by Amy Finkelstein, Neale Mahoney, and **Matthew Notowidigdo** (17-15)

*School Starting Age and Cognitive Development* by Elizabeth Dhuey, **David Figlio**, **Krzysztof Karbownik**, and Jeffrey Roth (17-16)

*Group Identification and the Collaboration Effect* by **Mary McGrath** (17-17)

*Electoral Campaigns and the Incumbency Advantage: How Institutes Generate Competitive Inequities* by **James Druckman**, *Martin Kifer*, and *Michael Parkin* (17-18)

*The Effect of Court-Ordered Hiring Guidelines on Teacher Composition and Student Achievement* by CC DuBois and **Diane Whitmore Schanzenbach** (17-19)

*Reducing Bureaucratic Corruption: Interdisciplinary Perspectives on What Works* by **Jordan Gans-Morse**, Mariana Borges, *Alexey Makarin*, Theresa Mannah Blankson, Andre Nickow, and Dong Zhang (17-20)

*Reasonable Patient Care Under Uncertainty* by **Charles F. Manski** (17-21)

*The Economics of Scale-Up* by Jonathan M. V. Davis, **Jonathan Guryan**, *Kelly Hallberg*, and Jens Ludwig (17-22)

*Escaping the Abdication Trap When Cooperative Federalism Fails: Legal Reform After Flint* by **David Dana** (17-23)

*Scientific Education and Innovation: From Technical Diplomas to University STEM Degrees* by **Nicola Bianchi** and Michela Giorcelli (17-24)

*Current IPR faculty and student names are in bold. Current Northwestern colleagues and former students are in italics.*



Celeste Watkins-Hayes, IPR sociologist and African American studies researcher, is working on a book that uses the HIV/AIDS epidemic as a lens to understand how people improve their social well-being.

## IPR DISTINGUISHED PUBLIC POLICY AND SPECIAL LECTURES

February 16, “Beyond \$2.00 a Day: Solutions for Breaking the Cycle of Extreme Poverty” by **Kathryn Edin**, Bloomberg Distinguished Professor of Sociology and of Population, Family, and Reproductive Health, Johns Hopkins University

November 14, “For a Time Such as This: A Vision for the Future of Education Research” by **Na’ilah Suad Nasir**, President, The Spencer Foundation

*Co-sponsored with the School of Education and Social Policy*

## IPR FAY LOMAX COOK MONDAY COLLOQUIA

January 9, “Physical Health Consequences of Childhood Socioeconomic Disadvantage: Mediators, Buffers, and Puzzles” by **Greg Miller**, Louis W. Menk Professor of Psychology and IPR Fellow

January 23, “Discrimination in American and European Labor Markets: An International Meta-Analysis of Field Experiments” by **Lincoln Quillian**, Professor of Sociology and IPR Fellow

January 30, “The Dual Frontier: Patentable Inventions and Prior Scientific Advance” by **Benjamin Jones**, Gordon and Llura Gund Family Professor of Entrepreneurship, Professor of Strategy, and IPR Associate

February 6, “The Evolution of Human Trafficking Policy” by **Tabitha Bonilla**, IPR Research Assistant Professor

February 13, “The Affordable Care Act and Emergency Room Use in Illinois” by **Joe Feinglass**, Research Professor of General Internal Medicine, Geriatrics, and Preventive Medicine, and IPR Associate

February 20, “In the Eye of the Beholder: When Race Perception Clashes with Anti-Discrimination Law” by **Destiny Peery**, Assistant Professor of Law and IPR Associate

February 27, “Student Course Performance and Future Course-Taking: Differences by Gender, Race, and Ethnicity” by **David Figlio**, Orrington Lunt Professor of Education and Social Policy and IPR Fellow; **Paola Sapienza**, Donald C. Clark/HSBC Chair in Consumer Finance and IPR Associate; and **Morton Schapiro**, Northwestern University President, Professor, and IPR Fellow

March 6, “May We Make the World? Gene Drives and the Radical Ethics of Malaria Eradication” by **Laurie Zoloth**, Charles McCormick Deering Professor of Teaching Excellence; Professor of Religious Studies, Bioethics, and Medical Humanities; and IPR Associate

March 27, “Moving Beyond the ‘Word Gap’: Thinking Critically About Language and Cognition in Infancy” by **Sandra Waxman**, Louis W. Menk Professor of Psychology and IPR Fellow

April 3, “The Effect of Collaboration on Distributive Preferences” by **Mary McGrath**, Assistant Professor of Political Science and IPR Fellow

April 17, “Your Brain on Reward: The Science of Pursuit” by **Robin Nusslock**, Associate Professor of Psychology and IPR Associate

April 24, “What Is ‘High Quality’ Early Childhood Education?” by **Terri Sabol**, Assistant Professor of Human Development and Social Policy and IPR Associate

May 1, “The Safety Net that AIDS Activism Built: Lessons for Intersectional Social, Economic, and Political Transformation” by **Celeste Watkins-Hayes**, Professor of Sociology and African American Studies and IPR Fellow

May 8, “Cost-Benefit Analysis for a Quinquennial Census: The 2016 Population Census of South Africa” by **Bruce Spencer**, Professor of Statistics and IPR Fellow

May 15, “The ‘Black Box’: Racial and Gender Identity Development Among Black Adolescent Boys” by **Onnie Rogers**, Assistant Professor of Psychology and IPR Fellow

May 22, “Maximizing Charges: Overcriminalization in the Mass Incarceration Era” by **Heather Schoenfeld**, Assistant Professor of Human Development and Social Policy and of Legal Studies, and IPR Fellow

## COLLOQUIA AND EVENTS

October 9, "Approaches to Corruption: A Synthesis of the Scholarship" by **Monica Prasad**, Professor of Sociology and IPR Fellow

October 16, "A Simple Model of the Shift from Low to High Lethality for Terror Organizations" by **Brian Uzzi**, Richard L. Thomas Professor of Leadership and Organizational Change and IPR Associate

October 23, "Why Is Food Insecurity So Harmful in the First 1,000 Days of Life? Findings from East Africa" by **Sera Young**, Assistant Professor of Anthropology and IPR Fellow

October 30, "Unpacking a Multifaceted Program to Build Sustainable Income for the Poor" by **Christopher Udry**, Robert E. and Emily King Professor of Economics and IPR Associate

November 6, "Following Youth at Risk for Developing Schizophrenia: Translating Basic Psychopathology Research to Real-World Implementation" by **Vijay Mittal**, Assistant Professor of Psychology and IPR Associate

November 13, "Pews to Politics: How Religious Ideas Can Influence Modes of Political Engagement in Africa and Beyond" by **Rachel Beatty Riedl**, Associate Professor of Political Science and IPR Fellow

November 20, "Does College Lead to Good Jobs for Everyone in the Era of 'College for All'?" by **James Rosenbaum**, Professor of Education and Social Policy and IPR Fellow; **Lynn Meissner**, IPR Graduate Research Assistant; and **Alexis Gable**, IPR Research Study Coordinator

November 27, "Why Mental Illnesses Are Not Diseases and What to Do About It" by **Eva Redei**, David Lawrence Stein Research Professor in Psychiatric Diseases Affecting Children and Adolescents, and IPR Associate

## JOINT ECONOMICS/IPR SEMINARS

March 30, "Valuing Alternative Work Arrangements" by **Amanda Pallais**, Paul Sack Associate Professor of Political Economy and Social Studies, Harvard University

April 6, "On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply?" by **Simone Schaner**, Assistant Professor of Economics, Dartmouth College

April 13, "Who Profits from Patents? Rent-Sharing at Innovative Firms" by **Owen Zidar**, Assistant Professor of Economics, University of Chicago

April 20, "The More We Die, The More We Sell? A Simple Test of the Home-Market Effect" by **Heidi Williams**, Associate Professor of Economics, Massachusetts Institute of Technology

April 27, "Information as an Incentive: Experimental Evidence on the Policy and Political Impacts of Anticipated Information Disclosures on Delhi Politicians" by **Rohini Pande**, Mohammed Kamal Professor of Public Policy, Harvard University

May 4, "The Long-Term Consequences of Teacher Discretion in Grading of High-Stakes Tests" by **Petra Persson**, Assistant Professor of Economics, Stanford University

May 25, "The Short- and Medium-Run Effects of Computerized VAT Invoices on Tax Revenues in China" by **Nancy Qian**, Associate Professor of Economics, Yale University

June 1, "The Morale Effects of Pay Inequality" by **Supreet Kaur**, Assistant Professor of Economics, University of California, Berkeley

October 19, "Rethinking the Benefits of Youth Employment Programs: The Heterogeneous Effects of Summer Jobs" by **Sara Heller**, Assistant Professor of Economics, University of Michigan

October 26, "Targeting High-Ability Entrepreneurs Using Community Information: Mechanism Design in the Field" by **Ben Roth**, Visiting Scholar, Kellogg School of Management, Northwestern University

November 9, "Information Delivery Under Endogenous Communication: Experimental Evidence from the Indian Demonetization" by **Emily Breza**, Assistant Professor of Economics, Harvard University

November 16, "How Much Does Your Boss Make? The Incentive Effects of Horizontal and Vertical Inequality" by **Ricardo Perez-Truglia**, Assistant Professor of Economics, University of California, Los Angeles

December 7, "Targeting Subsidies: A Mechanism Design Approach" by **Pascaline Dupas**, Associate Professor of Economics, Stanford University

## Q-CENTER COLLOQUIA

February 1, "Cluster-Level Adaptive Interventions and Their Development Using Cluster-Level SMART Designs" by **Daniel Almirall**, Assistant Professor, Survey Research Center, and Faculty Associate, Population Studies Center, Institute for Social Research, University of Michigan

May 17, "Improving Capacity to Make Fair Comparisons of the Effectiveness and Cost-Effectiveness of Education and Social Policy Options" by **Rebecca Maynard**, University Trustee Professor of Education and Social Policy, University of Pennsylvania

October 18, "CompareML: Structuring Machine-Learning Research in Data-Driven Science" by **Victoria Stodden**, Associate Professor of Information Sciences, University of Illinois at Urbana-Champaign

December 6, "Introduction to the Multiphase Optimization Strategy (MOST) for Developing More Effective, Efficient, Economical, and Scalable Behavioral Interventions" by **Linda Collins**, Distinguished Professor of Human Development and Family Studies and Statistics; Director, The Methodology Center, Pennsylvania State University

## PERFORMANCE MEASUREMENT AND REWARDS SERIES

February 15, “Consumer Response to School Quality Information Shocks: Evidence from the Housing Market and Parents’ School Choices” by **Iftikhar Hussain**, Lecturer in Economics, University of Sussex

May 31, “Minimum Wages Within the Firm: Evidence from Establishment and Personnel Data” by **Nicola Persico**, John L. and Helen Kellogg Professor of Managerial Economics and Decision Sciences, Northwestern University

December 5, “Evidence-Based Research and Policymaking: Lessons Learned from Two Years in D.C.” by **Diane Whitmore Schanzenbach**, Margaret Walker Alexander Professor and IPR Director

## C2S WORKSHOPS

February 10, “Your Brain on Reward: The Neuroscience of Emotional and Physical Health” by **Robin Nusslock**, Associate Professor of Psychology and IPR Associate

March 3, “Lifecourse Social Adversity, DNA Methylation, and Cardiometabolic Health” by **Kiarri Kershaw**, Assistant Professor of Preventive Medicine, Northwestern University

April 28, “Microbial Pieces of a Macro Puzzle: Using the Gut Microbiota to Examine Questions Regarding Human



IPR sociologist Monica Prasad examines Ronald Reagan’s first tax cut, and the effects of the tax-cut movement on inequality and political conservatism today, in an IPR colloquium.

Physiology and Health” by **Katherine Amato**, Assistant Professor of Anthropology and IPR Associate

May 19, “Predictors of Medical Students’ Implicit and Explicit Attitudes Against Black Individuals: Data from the Medical Student CHANGE Study” by **Sylvia Perry**, Assistant Professor of Psychology and IPR Associate

## ‘WHO NEEDS TO DO WHAT DIFFERENTLY?’ SEMINAR SERIES

October 24, “Subsidizing Health Insurance for Low-Income Adults: What Does It Do and What Does That Mean?” by **Amy Finkelstein**, John and Jennie S. MacDonald Professor of Economics, Massachusetts Institute of Technology  
*Co-sponsored with the Buffett Institute for Global Studies*

## WORKSHOPS AND OTHER EVENTS

May 5, “Chicago Area Political and Social Behavior Workshop,” organized by **James Druckman**, Payson S. Wild Professor of Political Science, with presentations by **Larry Bartels**, May Werthan Shayne Chair of Public Policy and Social Science, Vanderbilt University; **Chloe Thurston**, Assistant Professor of Political Science and IPR Associate; **Michael Wagner**, Associate Professor of Journalism and Mass Communication, University of Wisconsin–Madison; and **Cara Wong**, Associate Professor of Political Science, University of Illinois, Urbana–Champaign  
*Co-sponsored with the Weinberg College of Arts and Sciences and the Department of Political Science*

August 1–12, “Summer Research Training Institute on Design and Analysis of Quasi-Experiments in Education,” directed by **Thomas D. Cook**, Joan and Sarepta Harrison Chair Emeritus of Ethics and Justice; Professor Emeritus of Sociology, Psychology, and Education and Social Policy; and IPR Fellow Emeritus  
*Supported by the National Center for Education Research in the Institute of Education Sciences, U.S. Department of Education*

August 9–11, “Household Water Insecurity Experiences Scale (HWISE) Workshop,” organized by **Sera Young**, Assistant Professor of Anthropology and IPR Fellow  
*Co-sponsored with the Buffett Institute for Global Studies and the Northwestern Center for Water Research*

# AWARDS, HONORS, AND PRESENTATIONS OF NOTE

## FACULTY FELLOWS

**Emma Adam**, Lyle Spencer Research Award, Spencer Foundation

**Lindsay Chase-Lansdale**, Appointed Vice Provost for Academics, Northwestern University, December 1; “Disrupting the Cycle of Poverty: Two-Generation Approaches from Research, Practice, and Policy,” Project 2Gen, Cornell University, October 23

**Edith Chen**, Invested as John D. and Catherine T. MacArthur Professor, Northwestern University, November 28; “Disparities in Childhood: Protective Factors,” Department of Psychiatry Grand Rounds, University of Chicago, April 26

**Fay Lomax Cook**, “Forensic Science Research at the National Science Foundation,” Human Factors and Ergonomics Society, Washington, D.C., September 20

**James Druckman**, Frank Research Prize in Public Interest Communications for “Counteracting the Politicization of Science,” College of Journalism and Communications, University of Florida, March 1

**Alice Eagly**, Heidi Fritz-Neggli Visiting Professor, University of Zurich; Distinguished Member, Psi Chi; “The Psychology of Gender in the Context of Changing Social Roles,” Keynote, European Association of Social Psychology and Society for Personality and Social Psychology, Berlin, Germany, June 24; “Women as Leaders: How Are They Faring?” Plenary Keynote, American Psychological Association Annual Meeting, Washington D.C., August 4; “Women Creating Change: Leadership and Social Innovation,” Keynote, Women’s College Coalition Annual Conference, Decatur, Georgia, September 21

**David Figlio**, Elected Member, National Academy of Education, February 28; Appointed Dean, School of Education and Social Policy, Northwestern University, September 1

**Daniel Galvin**, Presidential Authority Award, Russell Sage Foundation

**Jonathan Guryan**, “Not Too Late: Improving Academic Outcomes for Disadvantaged Youth,” Keynote, Nordic Summer Institute in Labor Economics, Aarhus University, Ebeltoft, Denmark, June 7; Keynote, “The Economics of Scale-Up: Designing Experiments to Learn How Social Programs Can Scale Effectively,” Institute for Essential Service Reform Contemporary Labor Economics Conference, Jinan University, Guangzhou, China, December 16

**Laurel Harbridge-Yong**, Outstanding Reviewer Award, *Political Research Quarterly*; “Passing the Buck in Congress,” Anxieties of Democracy Program: Negotiating Agreement in Congress Workshop, Social Science Research Council, October 26–27

**Larry Hedges**, “The NCES Influences on Education Research During the Last 40 Years,” Invited Address, National Center on Education Statistics, Washington, D.C., November 15; “The Perspective of the National Board for Education Sciences,” Principal Investigators Meeting, Institute of Education Sciences, U.S. Department of Education, Washington, D.C., December 15

**Seema Jayachandran**, Keynote, “Understanding Why Increasing Mothers’ Bargaining Power Improves Children’s Health,” COSME Gender Economics Workshop, Spanish Economic Association, Madrid, May 25; Keynote, “Evaluating Payments for Ecosystem Services with a Randomized Controlled Trial,” Environmental and Natural Resources Conservation Workshop, National Institute of Higher Education in Agricultural Sciences (SupAgro), Montpellier, France, September 6

**Christopher Kuzawa**, W Award, Weinberg College of Arts and Sciences, Northwestern University; Invited Speaker, “The Long Reach of History: Pathways Linking Phenotypes with Ancestral Environments,” Conference on Early Life Determinants of Later Life Health and Well-Being, University of Wisconsin–Madison, May 11; “The High Costs of Human Brain Development,” Midwest Society for Pediatric Research, Lurie Children’s Hospital, Chicago, October 13

**Charles F. Manski**, Distinguished Fellow, American Economics Association; “Communicating Uncertainty in Policy Analysis,” Manhot Lecture, Bonn Graduate School of Economics, Bonn, Germany, January 26; “The Role of Scientists and the Media in Communicating Uncertainty,” Arthur M. Sackler Colloquium, National Academy of Sciences, Washington, D.C., November 17

**Thomas McDade**, W Award, Weinberg College of Arts and Sciences, Northwestern University; Invited Speaker, “Early Environments, the Regulation of Inflammation, and Implications for Health Within and Across Generations,” Conference on Early Life Determinants of Later Life Health and Well-Being, University of Wisconsin–Madison, May 11; Member, Northwestern Delegation, Exploratory Trip to Cuba for Joint Research Collaborations, June 27–30

## AWARDS, HONORS, AND PRESENTATIONS OF NOTE

**Greg Miller**, Invested as the Louis W. Menk Chair, Weinberg College of Arts and Sciences, Northwestern University, November 28

**Matthew Notowidigdo**, Outstanding Paper Award for “The Marginal Propensity to Consume Over the Business Cycle,” Midwest Finance Association Conference, Chicago, March 1–4

**Beth Redbird**, Scholar, U.S. Department of Labor Scholars Program; Invited Expert, Roundtable to Examine Empirical Evidence on the Effects of Occupational Licensure, Federal Trade Commission, Washington, D.C., November 7

**Rachel Beatty Riedl**, Authors Meet Critics for *Parties, Movements and Democracy in the Developing World* (Cambridge University Press, 2016), ed. by N. Bermeo and D. Yashar, Chapter 5, American Political Science Association Annual Meeting, San Francisco, September 2

**Onnie Rogers**, Rising Star Award, Association for Psychological Science; Board of Directors, National Black Child Development Institute; W Award, Weinberg College of Arts and Sciences, Northwestern University

**Diane Whitmore Schanzenbach**, Appointed Director, Institute for Policy Research, September 1; “The Safety Net: An Investment in Children,” Keynote, Hunger Action Summit, Second Harvest Food Bank, San Jose, California, March 14; Testimony, “Nutrition Programs: Perspectives for the 2018 Farm Bill,” U.S. Senate Committee on Agriculture, Nutrition, and Forestry, Washington, D.C., September 14

**Morton Schapiro**, Elected Fellow, National Academy of Education, February 28; Community Service Award, Evanston North Shore Branch, National Association for the Advancement of Colored People, November 18

**Rebecca Seligman**, Invited Presentation, “Culture, Healing, and Self-Transformation,” The Power of Minds Meeting and Survey of Scholarship, Worldview, Stanford University, December 5-7; Member, Northwestern Delegation, Exploratory Trip to Cuba for Joint Research Collaborations, June 27–30

**Celeste Watkins-Hayes**, Appointed Associate Vice President for Research, Northwestern University, November 13; “On the Ground: Ethnography and Contemporary Social Crises,” Keynote, Chicago Ethnography Conference, Chicago, April 8; Keynote, “The Safety Net that AIDS Activism Built: Lessons for

Intersectional Personal and Political Transformation,” The Dance of Race, Class & Privilege Conference, AIDS Foundation of Chicago, December 6

**Sandra Waxman**, Invited Participant, “Linking Language and Cognition: New Insights from Young Infants,” Concepts, Actions, and Objects: Functional and Neural Perspectives, Rovereto Workshop, Center for Mind/Brain Sciences, University of Trento, Italy, May 6; Invited Speaker, “Becoming Human: How (and How Early) Do Infants Link Language and Cognition?,” New Perspectives in Animal Models of Language Conference, University of Maryland, College Park, September 24; “How (and How Early) Do Infants Link Language and Cognition?,” Azrieli Program in Brain, Mind, and Consciousness Meeting, Canadian Institute for Advanced Research, Montebello, Canada, December 11–13

**Sera Young**, “Food Security in the First 1,000 Days,” Panel on Women, Food Security, End Hunger: Political Will and Public Will, U.N. Commission on the Status of Women 61, New York, March 17; “If I Can’t Eat, How Can I Feed?: Food Insecurity, HIV, and Maternal and Child Health,” Invited Lecture, Third Coast Center for AIDS Research Seminar, Chicago, May 8

## FACULTY ASSOCIATES

**Ronald Ackermann**, Appointed Senior Associate Dean for Public Health and Director of the Institute for Public Health and Medicine, Feinberg School of Medicine, Northwestern University

**Katherine Amato**, W Award, Weinberg College of Arts and Sciences, Northwestern University

**Ana Arjona**, Author Meets Critics for *Rebelocracy: Social Order in the Colombian Civil War* (Cambridge University Press, 2016), American Political Science Association Annual Meeting, San Francisco, September 1

**Pablo Boczkowski**, “Las Mentiras al Poder: Comunicación y Política en Tiempos de las Redes Sociales,” Friedrich Ebert Stiftung and Fundación Nueva Sociedad, Mexico City, July 4; “Reading the News on Trump,” Keynote, ParlAmericas Annual Meeting, Medellín, Colombia, November 16

**David Cella**, “The Use of PROMIS in Clinical Ob/Gyn Practice,” Wayne State University, April 18

**Stephanie Edgerly**, “News Use in the Modern Media Environment: Recent Findings, Future Challenges,”

## AWARDS, HONORS, AND PRESENTATIONS OF NOTE

Danish School of Media and Journalism, Aarhus, Denmark, International Information Programs, U.S. Department of State, September

**Steven Epstein**, Invited Presidential Panel, “Knowing and Placing the Human: Standardization, Categorization, and the Politics of Race, Gender, and Sexuality,” American Sociological Association Annual Meeting, Montreal, August 13

**Craig Garthwaite**, Appointed as the Herman Smith Research Professor in Hospital and Health Services Management, Northwestern University, November 29

**Claudia Haase**, 2017 National Alliance for Research on Schizophrenia and Depression Young Investigator Grant, Behavior & Brain Research Foundation

**John Hagan**, Elected Fellow, National Academy of Sciences

**John Heinz**, Superior Achievement Award for *Women, Work, and Worship in Lincoln’s Country: The Dumville Family Letters* (University of Illinois Press, 2016), Illinois State Historical Society

**Dean Karlan**, “Nimble RCTs,” Strategic Evaluation Fund, World Bank, May; “Theory and Evidence on Climate Change Communication, Mitigation, and Incentives,” Green Climate Fund, Korea, June

**Kristen Knutson**, University of Surrey Institute of Advanced Studies Santander Fellow; Keynote, “Sleep and Cardiometabolic Health,” British Sleep Society Conference, Brighton, U.K., October 14

**Vijay Mittal**, Elected Fellow, Association for Psychological Science; W Award, Weinberg College of Arts and Sciences, Northwestern University

**Robin Nusslock**, Elected Fellow, Association for Psychological Science

**Mary Pattillo**, “Black Metropolis Revisited City Moves: Black Urban History Since 1967,” 37th Annual Marion Thompson Wright Lecture Series, Rutgers University – Newark, February 18; “The Future of Black Metropolis,” 2017 John Brown Russwurm Distinguished Lecturer, Bowdoin College, April 3

**Sylvia Perry**, Best Paper Award from the Association for Medical Education in Europe for “Association Between Perceived Medical School Diversity Climate and Change

in Depressive Symptoms Among Medical Students: A Report from the Medical Student CHANGE Study”

**Lauren Rivera**, Author Meets Critics Session for *Pedigree: How Elite Students Get Elite Jobs* (Princeton University Press, 2016), American Sociological Association Annual Meeting, Montreal, August 15

**Terri Sabol**, Early Career Fellow, American Educational Research Association and Society for Research on Child Development

**Melissa Simon**, Appointed to the U.S. Preventive Services Task Force; Marion Spencer Fay Award, Institute for Women’s Health and Leadership, College of Medicine, Drexel University, November 14

**Wesley G. Skogan**, Invited Presentation, “Stop & Frisk as an Organizational Strategy,” *Polices et Populations: Perspectives Internationales*, École Militaire, Paris, July 4; Invited Presentation, “The 2016 Crime Spike in Chicago,” Workshop on Social Interactions and Crime, Human Capital and Economic Opportunity Global Working Group, University of Chicago, October 20

**Teresa Eckrich Sommer**, Invited Presentation, “The Effects of a Two-Generation Human Capital Intervention on Low-Income Parents and Their Young Children in Head Start,” Ascend at the Aspen Institute 2Gen Practice Institute, Tulsa, Oklahoma, April 25

**Teresa Woodruff**, 2017 Guggenheim Fellow; Appointed Dean, The Graduate School, and Associate Provost for Graduate Education, Northwestern University, September 1; Elected Fellow, American Institute for Medical and Biological Engineering; Outstanding Leadership in Endocrinology Laureate Award, Endocrine Society; Outstanding Achievement in Women’s Health Research, Academy of Women’s Health

## STUDENTS AND STAFF

**Mollie McQuillan**, Presidential Fellowship, The Graduate School, Northwestern University

**Eric Betzold**, 2017 Northwestern Employee of the Year



Mollie McQuillan

## FACULTY IN THE MEDIA—SELECTED MENTIONS



IPR political scientist Laurel Harbridge-Yong appeared on WTTW's "Chicago Tonight" to discuss President Donald Trump's first address to Congress.

IPR sociologist and legal scholar **Heather Schoenfeld** penned an op-ed in *The Hill*, arguing that criminal justice reform advocates need to stress the human right to dignity and the ineffectiveness of current policies, January 6.

IPR economist **Jonathan Guryan** co-authored an op-ed in the *Chicago Sun-Times* that highlighted how violence can be prevented by helping youth to slow down and think before they act, February 3.

IPR developmental psychologist **Onnie Rogers** told *CNNMoney* that children pick up on ideas about social hierarchy, meaning they learn "who is valued and who is not," in this country, February 3.

*Science* highlighted a study by law professor, psychologist, and IPR associate **Shari Seidman Diamond** that discovered many scientists have negative views of the legal system, but serving in a legal case generally seems to improve them, February 18.

IPR associate **Brian Mustanski**, professor of medical social sciences, explained to *PBS Newshour* that research is showing the positive health effects of social policies that affirm and protect LGBT equality, February 20.

*NPR* cited research by IPR faculty emeritus **Wesley G. Skogan** that found the CeaseFire violence prevention program resulted in a lower likelihood of retaliatory shootings, March 8.

*Nature* featured work by oncofertility specialist and IPR associate **Teresa Woodruff** and her lab on the creation of a miniature female reproductive system on a chip, which will provide a new way to study reproductive diseases, fertility treatments, and contraception, March 28.

IPR social psychologist **Mesmin Destin** discussed his work on student motivation with *Education Week*. Destin has found that giving seventh-grade students information about college financial aid can affect their school engagement, April 17.

*Vox* noted research by economist and IPR associate **Joseph Ferrie** uncovered how the Mothers' Pension Program, the first federal welfare program in the United States, led to a longer lifespan for the boys of mothers who received benefits, April 27.

*NPR* interviewed IPR research associate professor **Teresa Eckrich Sommer** about the first-year impact of *CareerAdvance*. She and IPR developmental psychologist **Lindsay Chase-Lansdale** have found it boosts parents' education and career outcomes and significantly reduces children's chronic absences in Head Start, April 28.

IPR associate **Mary Pattillo**, a sociologist and African American studies researcher, spoke to *Chicago* magazine about the reasons behind the city's declining African American population, May 8.

High poverty and high crime leave "structural holes" that reduce the opportunity for sexual violence victims to heal, IPR sociologist and African American studies researcher **Celeste Watkins-Hayes** explained to *NBC News*, May 28.

*CBS News* highlighted how premature babies often catch up to their later-born peers academically, as shown in research by pediatrician and IPR associate **Craig Garfield**, IPR education economist **David Figlio**, IPR economist **Jonathan Guryan**, and IPR research associate **Krzysztof Karbownik**, June 12.

Healthcare economist and IPR associate **Craig Garthwaite** co-authored a *New York Times* op-ed arguing that the fight over the Affordable Care Act is causing uncertainty and jeopardizing the future of public-private partnerships, June 29.

*The Atlantic* highlighted the success of a program, evaluated by IPR development economist **Seema Jayachandran**, that paid people not to cut down trees in order to curb deforestation and reduce carbon emissions, July 20.

Health disparities scholar and IPR associate **Melissa Simon** wrote in *The Huffington Post* that partnership across the political spectrum is needed to improve health and healthcare for all Americans, July 25.

*The Guardian* reported on IPR developmental psychobiologist **Emma Adam**'s finding that teens exposed

## FACULTY IN THE MEDIA—SELECTED MENTIONS

to violent crimes in their neighborhoods changed their sleep patterns and exhibited higher stress hormones following the incident, July 31.

Republicans who rebuke President Trump risk losing voter support in the next primary, IPR political scientist **Laurel Harbridge-Yong** explained in *The Washington Post*, August 2.

The *Chicago Reporter* cited IPR political scientist **Daniel Galvin**'s finding that higher financial penalties reduce wage theft, August 9.

Neither nature nor nurture can fully account for the underrepresentation of women in the technology sector, IPR psychologist **Alice Eagly** wrote in *The Conversation*, August 15.

*C-SPAN* covered a hearing of the House Agriculture Committee, where IPR Director **Diane Whitmore Schanzenbach**, an economist, explained how the Supplemental Nutrition Assistance Program shows measurable long-term benefits, September 14.

*Forbes* talked to IPR sociologist **Lincoln Quillian** about how levels of hiring discrimination against African Americans have not improved over the last 25 years, September 16.

*Reader's Digest* featured work by IPR biological anthropologists **Thomas McDade** and **Christopher Kuzawa**, and IPR health psychologist **Greg Miller**, that found childhood experiences can alter DNA, September 18.

Certificates and associate degrees are a viable alternative to a four-year college degree, IPR education researcher **James Rosenbaum** explained to *Pacific Standard*, September 27.

*The Chronicle of Higher Education* highlighted a study by IPR associate **Lauren Rivera**, associate professor of management and organizations, that found faculty search committees actively considered women's—but not men's—relationship status when making hiring decisions, October 27.

The BBC's *Science in Action* interviewed geophysicist and IPR associate **Seth Stein** about how pointing out scientific errors in movies can be used as a teaching tool, October 29.

A *Washington Post* column explained that nuance is missing from the field of economics, as shown in a book by **Morton Schapiro**, Northwestern president, professor, and IPR economist, and Northwestern professor Gary Saul Morson, November 10.

Political scientist and IPR associate **Jordan Gans-Morse** argued in a *U.S. News & World Report* op-ed that political polarization risks the United States' readiness to respond to security threats from Russia and other potential aggressors, November 15.

In an *NBC News* op-ed, IPR anthropologist **Rebecca Seligman** argued that trying to explain President Donald Trump's psychology distracts from other issues, including the need for investment in social and political change, November 16.

Communication studies researcher and IPR associate **Ellen Wartella** spoke to *The New York Times* about how parents can ensure their children are using technology appropriately, December 5.

A *New York Times* editorial cited a book co-authored by political scientist and IPR associate **Benjamin Page**, which argues that the power of donors has made the government less responsive to the needs of most voters, December 16.



From left: Developmental psychologist Onnie Rogers, anthropologist Rebecca Seligman, political scientist Rachel Beatty Riedl, and biological anthropologist Thomas McDade had a chance to outline their research at IPR's fall fellows meeting.

# COMMUNITY OF SCHOLARS AND STAFF

## FACULTY

### WEINBERG COLLEGE of Arts and Sciences

#### African American Studies Fellow

Celeste Watkins-Hayes

#### Anthropology Fellows

Christopher Kuzawa

Thomas McDade \*

Rebecca Seligman \*

Sera Young

#### Anthropology Associates

Katherine Amato

Ana Aparicio

#### Earth and Planetary Sciences Associate

Seth Stein

#### Economics Fellows

Lori Beaman

Seema Jayachandran

Cynthia Kinnan

Charles F. Manski

Matthew Notowidigdo

Morton Schapiro

Burton Weisbrod

#### Economics Associates

Joseph Ferrie

Robert Porter

William Rogerson

Christopher Udry

#### History Associate

Henry Binford

#### Linguistics Associate

Annette D'Onofrio

#### Political Science Fellows

John Bullock

James Druckman

Daniel Galvin

Laurel Harbridge-Yong

Mary McGrath

Rachel Beatty Riedl

#### Political Science Associates

Ana Arjona

Jordan Gans-Morse

Julie Lee Merseeth

Thomas Ogorzalek

Benjamin Page

Andrew Roberts

Galya Ruffer

Chloe Thurston

#### Psychology Fellows

Edith Chen

Mesmin Destin \*

Alice Eagly

Greg Miller

Onnie Rogers

Sandra Waxman

#### Psychology Associates

Eli Finkel

Vijay Mittal

Daniel Mroczek

Robin Nusslock

Sylvia Perry

Jennifer Tackett

#### Sociology Fellows

Anthony Chen

Christine Percheski

Monica Prasad

Lincoln Quillian

Beth Redbird

Quincy Thomas Stewart

#### Sociology Associates

Héctor Carrillo

Steven Epstein

John Hagan \*

Robert Nelson

Mary Pattillo

Michael Rodríguez-Muñiz

Susan Thistle

#### Statistics Fellows

Larry Hedges

Bruce Spencer

### School of EDUCATION and SOCIAL POLICY

#### Fellows

Emma Adam \*

Lindsay Chase-Lansdale

Fay Lomax Cook \*

David Figlio

Jonathan Guryan

Simone Ispa-Landa

Kirabo Jackson

Ofer Malamud

James Rosenbaum

Diane Whitmore

Schanzenbach

Heather Schoenfeld

#### Associates

Cynthia Coburn

Jeannette Colyvas

Matthew Easterday

Claudia Haase \*

Barton Hirsch

Carol Lee

Dan Lewis

Jolie Matthews

Quinn Mulroy

Penelope Peterson

Terri Sabol

James Spillane

Reed Stevens

### MEDILL School of Journalism, Media, Integrated Marketing Communications

#### Fellow

Rachel Davis Mersey

#### Associates

Jack Doppelt

Stephanie Edgerly

Craig LaMay

Donna Leff

Charles Whitaker

### FEINBERG School of Medicine

#### Medical Social Sciences

##### Fellow

Lauren Wakschlag

#### Medical Social Sciences

##### Associates

Ann Borders

David Cella

Brian Mustanski

Frank Penedo

Amélie Petitclerc

Gregory Phillips II

#### General Internal Medicine and Geriatrics Associates

Ronald Ackermann

Joseph Feinglass

#### Neurology Associate

Kristen Knutson

#### Obstetrics and Gynecology

##### Associates

Melissa Simon

Teresa Woodruff

#### Pediatrics Associates

Jennifer Cartland

Craig Garfield

Jane Holl

#### Preventive Medicine

##### Associate

William Funk

#### Psychiatry and Behavioral

##### Sciences Associates

Crystal Clark

Eva Redei

Linda Teplin

### KELLOGG

#### School of Management

#### Finance Associates

Janice Eberly

Dean Karlan

Paola Sapienza

#### Management and Organizations Associates

Paul Hirsch

Brayden King

Lauren Rivera

Edward (Ned) Smith

Brian Uzzi

#### Strategy Associates

Nicola Bianchi

David Dranove

Craig Garthwaite

Benjamin Jones

Michael Mazzeo

Therese McGuire

### PRITZKER

#### School of Law

#### Associates

Bernard Black \*

David Dana

Shari Seidman Diamond

Destiny Peery

Daniel Rodriguez

Leonard Rubinowitz

Max Schanzenbach

#### School of

### COMMUNICATION

#### Communication Sciences and Disorders Associate

Molly Losh

#### Communication Studies

##### Associates

Pablo Boczkowski

Daniel O'Keefe

Michelle Shumate

Ellen Wartella

### McCORMICK

#### School of Engineering

#### Mechanical Engineering Associate

Elizabeth Gerber

#### Institute for

### POLICY RESEARCH

Tabitha Bonilla

Teresa Eckrich Sommer

*Faculty are listed by their primary appointment.*

*\*On leave for the 2017–18 academic year.*

## COMMUNITY OF SCHOLARS AND STAFF

### EXECUTIVE COMMITTEE

Lori Beaman  
Anthony Chen  
Edith Chen  
James Druckman  
Jonathan Guryan  
Christopher Kuzawa  
Thomas McDade  
Rachel Davis Mersey  
Diane Whitmore Schanzenbach  
Bruce Spencer  
Celeste Watkins-Hayes

### ADMINISTRATION

Diane Whitmore Schanzenbach, *Director*  
James Druckman, *Associate Director*  
Eric Betzold, *Business Administrator*  
Patricia Reese, *Communications Director*

### ADMINISTRATIVE STAFF

Arlene Dattels, *Accounting Assistant*  
Ellen Dunleavy, *Office and Program Assistant*  
Meredith Francis, *Assistant Editor*  
Lena Henderson, *Research Administrator*  
Cynthia Kendall, *Assistant to the Director*  
Carey Mark, *IT Specialist*  
Sara Schumacher, *Assistant Editor*  
Katie Scovic,<sup>‡</sup> *Assistant Editor*

### RESEARCH ASSOCIATES

Evelyn Asch  
Krzysztof Karbownik  
Aaron Miller

### RESEARCH STAFF Foundations of Health Research Center

Jungwha Ham  
Robin Hayen  
Lauren Hoffer  
Van Thanh Thi Le  
Adam Leigh  
Kay Vause  
Deanna Williams

### Quantitative Methods for Policy Research

Zena Ellison<sup>‡</sup>  
Valerie Lyne

### Two-Generation Research Initiative

Allison Cooperman<sup>\*</sup>  
Kenn Dela Cruz  
Amy Glazier-Torgerson<sup>\*</sup>  
Sarah Guminski

### College-to-Careers Project

Alexis Gable

### VISITING SCHOLARS

Deborah Fletcher, *Miami University*  
Rob Greenwald, *Society for Research on Educational Effectiveness*  
Matt Lesch, *University of Toronto*  
Eduardo Tillmann, *Federal University of Rio Grande do Sul State*

### FACULTY ADJUNCTS

Dennis Chong, *University of Southern California*  
Greg Duncan, *University of California, Irvine*  
Eszter Hargittai, *University of Zurich*  
Leslie McCall, *City University of New York*

Michelle Reininger, *Stanford University*  
Jennifer Richeson, *Yale University*  
Madeleine Shalowitz, *NorthShore University HealthSystem*

### FACULTY EMERITI

Thomas D. Cook  
John Heinz  
John McKnight  
Wesley G. Skogan

### POSTDOCTORAL FELLOWS

Jonathan Atwell, *Data Science in the Social Sciences*, *Adviser: David Figlio*  
Cynthia Blanco, *Project on Child Development*, *Adviser: Sandra Waxman*  
Marshall Jean, *IES Postdoctoral Training Grant*, *Adviser: Larry Hedges*  
Arend Kuyper, *Advanced State-Specific Design Parameters for Randomized Field Experiments*, *Adviser: Larry Hedges*  
Cynthia Levine, *Family Asthma Study*, *Adviser: Edith Chen*  
William Schneider, *Two-Generation Research Initiative*, *Adviser: Lindsay Chase-Lansdale*  
Christopher Skovron, *Data Science in the Social Sciences*, *Adviser: David Figlio*

### GRADUATE RESEARCH ASSISTANTS

Dominique Adams-Romena, *Sociology*  
Brandon Alston, *Sociology*

Denzel Avant, *Political Science*  
Bruno Barsanetti, *Economics*  
Joshua Basseches, *Sociology*  
Edward Brooks, *Earth and Planetary Sciences*  
Janene Cielto, *Psychology*  
Morgan Clark, *Sociology*  
Sarah Collier, *Psychology*  
Jamie Daubenspeck, *Economics*  
Elizabeth Debraggio, *Human Development and Social Policy*  
Cynthia (CC) DuBois, *Human Development and Social Policy*  
Kaitlyn Fitzgerald, *Human Development and Social Policy*  
Angel Escamilla García, *Sociology*  
Samuel Gubitz, *Political Science*  
Olivia Healy, *Human Development and Social Policy*  
Mindy Hong, *Statistics*  
Courtenay Kessler, *Human Development and Social Policy*  
Maira Kyweluk, *Human Development and Social Policy*  
Matthew Lacombe, *Political Science*  
Ijun Lai, *Human Development and Social Policy*  
Riccardo Marchingiglio, *Economics*  
Victoria Marone, *Economics*  
Heather McCambly, *Human Development and Social Policy*  
Mollie McQuillan, *Human Development and Social Policy*

Lynn Meissner, *Human Development and Social Policy*  
 Julissa Muñiz, *Human Development and Social Policy*  
 Antonio Nanni, *Sociology*  
 Matthew Nelson, *Political Science*  
 Mariana Oliver, *Sociology*  
 Richard Paquin-Morel, *Human Development and Social Policy*  
 Sarah Peko-Spicer, *Statistics*  
 Danielle Perszyk, *Psychology*  
 Kumar Ramanathan, *Political Science*  
 Emily Ross, *Human Development and Social Policy*  
 Jacob Rothschild, *Political Science*  
 Jacob Schauer, *Statistics*  
 Jacquelyn Stephens, *Human Development and Social Policy*  
 Ryan Svoboda, *Human Development and Social Policy*

Sara Thomas, *Human Development and Social Policy*  
 Francesca Truffa, *Economics*

**SUMMER UNDERGRADUATE RESEARCH ASSISTANTS**

Megana Audipudy, *Industrial Engineering*  
 Ryan Broll, *Mathematics*  
 Reena Burt, *Social Policy and Economics*  
 Alexander Dale, *Political Science*  
 Elizabeth Diamond, *Human Development and Psychological Services*  
 William Fischer, *Journalism*  
 Tyler Goff, *Economics and Mathematics*  
 Dorothy Hogg, *Statistics and Geography*  
 Luke Jokerst, *Biomedical Engineering and Psychology*  
 Seung Ho (Daniel) Jung, *Economics, Political Science, and Geography*

Ahamd Keshk, *Political Science*  
 Joshua Koo, *Computer Science*  
 Carolina Laguna, *Social Policy and Political Science*  
 Seong Won (Collin) Lee, *Statistics*  
 Jason Levin, *Neuroscience*  
 Kenneth Lim, *Social Policy and Global Health*  
 Amy Lin, *Biological Sciences*  
 Xinyi (Sunny) Liu, *Mathematical Methods in the Social Sciences, Economics, Statistics, and Mathematics*  
 Helen Lu, *Learning and Organization Change*  
 Claudia Lundgren, *Psychology*  
 James Malnati, *English and Sociology*  
 Gloria Mao, *Economics and Mathematical Methods in the Social Sciences*  
 Sumaia Masoom, *Social Policy*

Peter Nam, *Mathematical Methods in the Social Sciences, Economics, and Computer Science*  
 Isabel Olivos, *Mathematical Methods in the Social Sciences and Political Science*  
 Naomi Ostrander, *Political Science and International Studies*  
 Isabella Piñerua, *Mathematics and Latinx Studies*  
 Thomas Ritz, *Legal Studies and Mathematics*  
 Ethan Roubenoff, *Sociology and Computer Science*  
 Samuel Broughton Russell, *Social Policy*  
 Natalie Sands, *Political Science*  
 Rebecca Sinard, *Neuroscience and Psychology*  
 Ryan Stork, *Statistics*  
 Matthew Tobia, *Economics*  
 Andrew Wayne, *Social Policy*  
 Emma Zblewski, *Anthropology*



IPR's Winter 2017 Distinguished Public Policy Lecturer, Kathryn Edin (far right), now at Princeton University, takes questions from IPR graduate research assistants and postdoctoral fellows about her research on extreme poverty. They are joined by IPR economist David Figlio, now dean of the University's School of Education and Social Policy (second from right).

# FUNDING ORGANIZATIONS AND PROJECTS

## FOUNDATIONS AND ORGANIZATIONS

### Bill and Melinda Gates Foundation

How Do Schools and Teachers Influence Socioemotional Learning?, **Kirabo Jackson**

### Charles Koch Foundation

The Changing Tides of Mass Incarceration: State Variation in Decarceration Reforms, **Heather Schoenfeld**

### Foundation for Child Development

Community Action Project of Tulsa (CAP) Family Life Study Extension: Evaluation of a Model Dual-Generation Program, **Lindsay Chase-Lansdale**

### John D. and Catherine T. MacArthur Foundation

Chicago Community Survey, **Wesley G. Skogan**

### Laura and John Arnold Foundation

Schools that Promote Opportunity for All, **David Figlio**  
High-Dosage Literacy Tutoring for First Graders: Year 2,\* **Jonathan Guryan**

State and Local Innovation Initiative,\* **Jonathan Guryan**

### Russell Sage Foundation

Could Skin-Deep Resilience Be an Unintended Consequence of Academic Motivation Interventions?, **Edith Chen**

The New Politics of Workers' Rights, **Daniel Galvin**

Public Views of Inequality, Opportunity, and Redistribution: Evidence from Media Coverage and Experimental Inquiry, **Leslie McCall**

Socioeconomic and Racial Gaps in Schools: Implications for Health and Employment, **Greg Miller**

Race and Ethnic Discrimination in Labor Markets: An International Meta-Analysis, **Lincoln Quillian**

### Smith Richardson Foundation

Do Alternative College Options Benefit Non-Traditional Students, and How Do They Learn About Them?, **James Rosenbaum**

### Spencer Foundation

Building Infrastructure to Improve Education Practice and Research in Evanston, **Jonathan Guryan**

The Social Distribution of Academic Achievement in America, **Larry Hedges**

After Completion: The Dynamics of Career-Entry from Public and Private Two-Year Colleges, **James Rosenbaum**

School Finance Reform and the Distribution of Student Achievement, **Diane Whitmore Schanzenbach**

### William and Flora Hewlett Foundation

The Limits of Electoral Accountability: Passing the Buck for Congressional Inaction,\* **Laurel Harbridge-Yong**

### William T. Grant Foundation

Increasing the Reach of Promising Dropout Prevention Programs: Examining the Tradeoffs Between Scale and Effectiveness,\* **Jonathan Guryan**

Which Low-Income Students Beat the Odds to Get College Success and Payoffs, and What Advice Do Counselors Give Them?, **James Rosenbaum**

Cultures of Care: Exploring Inequalities in Mental Health Services Among Mexican American Youth, **Rebecca Seligman**

### U.K. Department for International Development

A Novel Tool for the Cross-Cultural Assessment of Household-Level Water Insecurity: Scale Refinement, Validation, and Manual Development,\* **Sera Young**

## U.S. GOVERNMENT AGENCIES

### National Science Foundation

CAREER: Social Networks, Labor Markets, and Agricultural Technology Adoption in Developing Countries, **Lori Beaman**

Time-Sharing Experiments for the Social Sciences (TESS): Renewed Support, 2012–15 and 2016–19, **James Druckman**

Doctoral Dissertation Research: The Intergenerational Consequences of Incarceration, **Jonathan Guryan** (supervisor)

Methods to Protect Privacy in State Longitudinal Data Systems Research Files,\* **Larry Hedges**

Spatial Intelligence and Learning Center: Research,\* **Larry Hedges**

The Evolutionary Biology of Telomeres in the Philippines,\* **Christopher Kuzawa**

Early Environments, Epigenetics, and Inflammation During Pregnancy, **Thomas McDade**

Family Structure and Inequality in Contemporary America, **Christine Percheski**

State Variation in Mass Incarceration Reforms, **Heather Schoenfeld**

Census Bureau Data Programs as Statistical Decision Problems, **Bruce Spencer**

### U.S. Department of Education

#### Institute of Education Sciences

Annual Workshops on Better Quasi-Experimental Design and Analysis, **Thomas D. Cook**

*\*Indicates a subaward.*

National Center for Analysis of Longitudinal Data in Education Research (CALDER),\* **David Figlio**

Advanced State-Specific Design Parameters for Randomized Field Experiments,\* **Larry Hedges**

A Summer Cluster-Randomized Trial (CRT) Training Institute for Established Researchers, **Larry Hedges**

Further Development of Effect Size Estimators for Single-Case Designs: Extensions to Trend and Diverse Outcome Metrics, **Larry Hedges**

Postdoctoral Research Training Fellowship in Education Sciences, **Larry Hedges**

State Longitudinal Data Systems Public-Use Project,\* **Larry Hedges**

**National Institutes of Health**

*Eunice Kennedy Shriver National Institute of Child Health and Human Development*

Remediating Academic and Non-Academic Skills Deficit Among Disadvantaged Youth,\* **Jonathan Guryan**

How Housing Vouchers Affect Biology and Health,\* **Thomas McDade**

Rural African American Young Adults' Pathways to Psychosocial and Physical Health,\* **Greg Miller**

Linking Language and Cognition in Infancy: Entry Points and Developmental Change, **Sandra Waxman**

*National Heart, Lung, and Blood Institute*

Multilevel Understanding of Social Contributors to Socioeconomic Status Disparities in Asthma, **Edith Chen**

Adolescent Family Stress and Early Cardiovascular Risk: Psychosocial and Behavioral Pathways, **Greg Miller**

Childhood Origins of Coronary Heart Disease (CHD) Disparities: Neural and Immune Pathways, **Greg Miller**

*National Institute on Aging*

Multidimensional Pathways to Healthy Aging Among Filipino Women,\* **Thomas McDade**

*National Institute on Drug Abuse*

Vulnerability to Drug Use and HIV: Advancing Prevention for Rural African Americans,\* **Greg Miller**

*National Institute of Mental Health*

Health Consequences of Food and Nutrition Insecurity for HIV-Positive Women and Their Infants, **Sera Young**

Health Consequences of Water Insecurity for HIV-Infected Mothers and Their Infants, **Sera Young**

*National Institute on Minority Health and Health Disparities*

The Price of Debt: The Unequal Burden of Financial Debt and Its Impact on Health,\* **Thomas McDade**

Understanding Socioeconomic Disparities in Perinatal Risk: The Role of Epigenetic and Transcriptional Regulation in the Placenta, **Greg Miller**

**U.S. Department of Health and Human Services**

*Administration for Children and Families*

Expanding the Cycle of Opportunity: Simultaneously Educating Parents and Children in Head Start, **Lindsay Chase-Lansdale**

The Northwestern University Two-Generation Study of Parent and Child Human Capital Advancement, **Teresa Eckrich Sommer**

Two-Generation Child and Family Outcomes Study of CAP Tulsa's CareerAdvance® Program,\* **Teresa Eckrich Sommer**

**U.S. Department of Justice**

*National Institute of Justice*

The Intergenerational Consequences of Incarceration, **Jonathan Guryan**

*Office of Juvenile Justice and Delinquency Prevention*

Evaluating a Cognitive Behavioral Approach for Improving Life Outcomes of Underserved Young Women: A Randomized Experiment in Chicago,\* **Jonathan Guryan**

**U.S. Department of Labor**

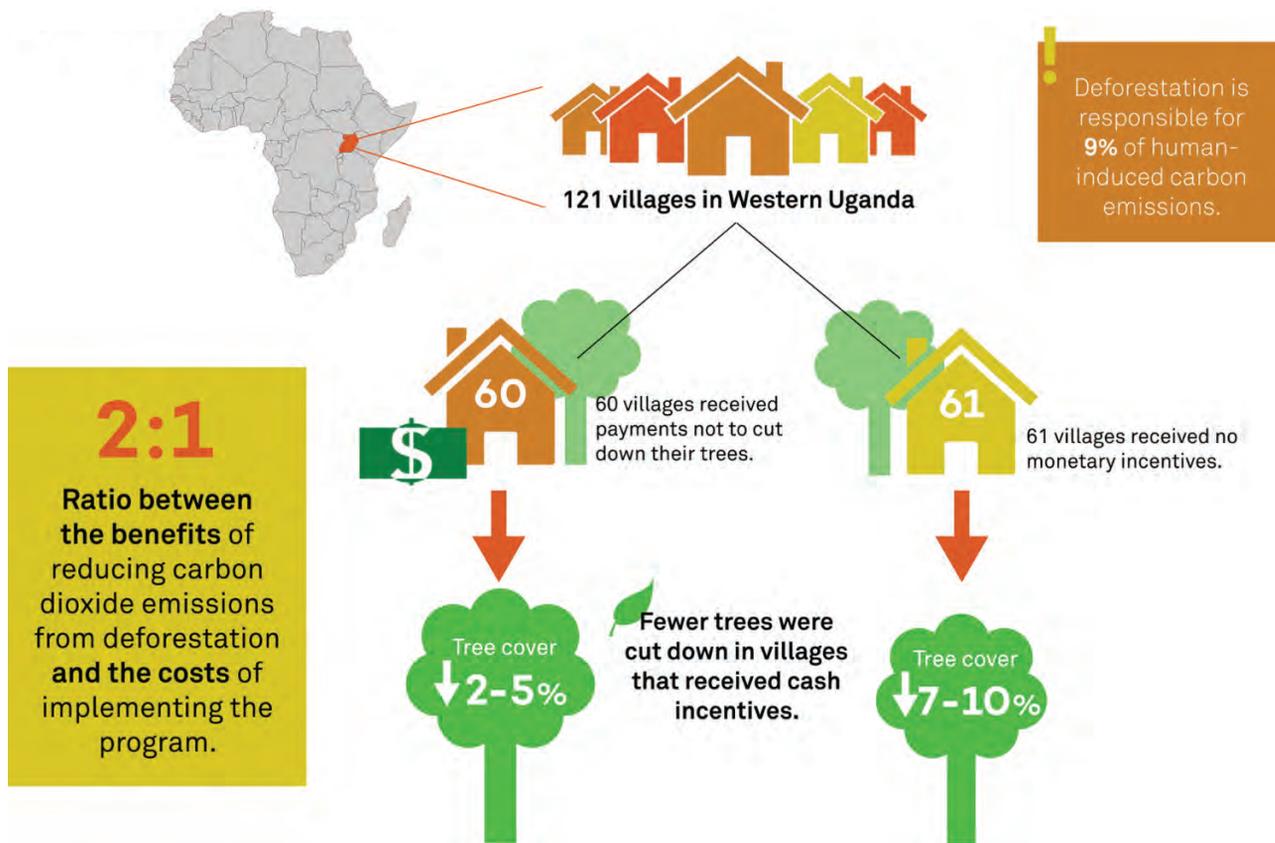
Islands of Labor: Reservation Labor Markets and American Indian Well-Being,\* **Beth Redbird**



IPR sociologist Beth Redbird received a grant to examine labor markets on American Indian reservations.

# INFOGRAPHIC: CASH FOR CARBON

## IPR ECONOMIST UNCOVERS COST-EFFECTIVE WAY TO REDUCE DEFORESTATION



Seema Jayachandran

Deforestation accounts for an estimated 9 percent of human-induced carbon emissions. In recent years, programs have been implemented to slow deforestation in developing countries, where most global deforestation occurs. Yet little is known about whether such programs are effective.

A recent study in Uganda, led by IPR development economist **Seema Jayachandran** and her colleagues, suggests that paying people to conserve their trees could be a highly cost-effective way to reduce deforestation, and therefore carbon emissions.

The researchers conducted a randomized controlled trial in 121 villages in western Uganda over a two-year period. In 60 villages, forest owners received payments not to cut down their trees; people in the other 61 villages received no monetary incentives.

Using high-resolution satellite imagery to compare tree cover in the villages, Jayachandran and her colleagues find that forest cover declined by just 2-5 percent in villages that received payments. For villages not enrolled in the payment program, forest cover fell by 7-10 percent, meaning fewer trees were cut down when payments were offered.

Not only did the program effectively reduce deforestation—it was very cost-effective. The researchers estimate nearly a 2:1 ratio between the benefits of preventing carbon dioxide emissions from deforestation and implementation costs.

This finding highlights the advantages of focusing on developing countries when working to reduce global carbon emissions. While the benefit of conserving a tree is the same regardless of the location, paying individuals to conserve forests in developing countries like Uganda is less expensive, making it cheaper to reduce overall emissions.

Today, with deforestation accounting for a substantial portion of human-induced carbon emissions, the researchers describe the payment program they studied as “a cost-effective way to avert deforestation in developing countries—and hence a powerful tool to mitigate climate change.”

Source: Jayachandran, S., J. De Laat, E. Lambin, C. Stanton, R. Audy, and N. Thomas. 2017. Cash for carbon: A randomized trial of payments for ecosystem services to reduce deforestation. *Science* 356(6348): 267-73.

For other infographics, go to [www.ipr.northwestern.edu/about/news/infographics.html](http://www.ipr.northwestern.edu/about/news/infographics.html)

# RESOURCES AND SNAPSHOT

## ONLINE RESOURCES

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- Articles on faculty research findings
- Video, audio, and slide presentations from IPR events and workshops
- Media coverage of the Institute and its faculty
- Links to affiliated centers and programs
- Calendar of IPR colloquia, workshops, and other events



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- Seminars on Economics and Performance Measurement
- Quantitative Methodology Colloquia and Events (Q-Center)
- Social Disparities and Health (C2S) Colloquia and Events
- Who Needs to Do What Differently? Series

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**“The mission of the Institute for Policy Research is to stimulate and support excellent social science research on significant public policy issues and to disseminate the findings widely—to students, scholars, policymakers, and the public.”**

- 45 Faculty Fellows
- 104 Faculty Associates and Adjuncts
- 7 Postdoctoral Fellows
- 41 Graduate Research Assistants
- 36 Summer Undergraduate Research Assistants
- 59 Active Grants in 2017

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