Four Faculty Join IPR
New expertise added in psychology, health, innovation, and economics

Four new fellows joined IPR at the start of the 2014–15 academic year: social psychologist Mesmin Destin, health and law scholar Michael Frakes, and economists Cynthia Kinnan and Matthew Notowidigdo. These new scholars bring expertise in several exciting areas, said IPR Director David Figlio.

According to Figlio, Kinnan’s expertise in development economics, with projects in India, Thailand, and China, exemplifies IPR’s “bread-and-butter” social policy issues, globally writ. Destin’s research demonstrates a masterful grasp of trans-disciplinary scholarship in psychology and human development—despite his relatively recent PhD. Frakes, who is in Northwestern’s Law School, and Notowidigdo, who is based in economics—

Racial Disparities in America
IPR researchers examine myriad aspects, offer policy insights

In the same month that a grand jury decided not to indict a white 28-year-old police officer for fatally shooting an 18-year-old, African American high school graduate in Ferguson, Mo., mostly white Utah voters elected the nation’s first African American, Mormon, Republican woman to the U.S. House of Representatives. These contrasting events offer but one immediate illustration of the complexity and promise inherent to understanding, and potentially addressing, racial issues in America.

Given the difficult history of U.S. race relations—and the ensuing, sometimes imperceptible, effects of race on individuals and society—a significant number of IPR faculty are studying the issue across a wide spectrum of topics, from examining the black/white/Latino test score gap to tracing how the mind reacts to a person of a different race or ethnicity. While the questions are challenging and the answers never simple, IPR researchers strive to conduct high-quality research, capable of informing meaningful dialogue and policy.

(Continued on page 22)

Training New Education Experts
Methods, tools shared with professionals and students

From workshops to multidisciplinary programs, IPR faculty are committed to training education experts in cutting-edge methods. This summer, Larry Hedges, an IPR education researcher and statistician, co-led two workshops sponsored by IES, that included offering a workshop specifically for faculty from minority-serving institutions. It trained participants on methodological skills and tools that are useful to education researchers.

With its own commitment to education research excellence, Northwestern’s Multidisciplinary Program in Education Sciences (MPES) recently received its third consecutive IES grant under the leadership of its program director, IPR economist Diane Whitmore Schanzenbach. It continues to expand as an innovative and multidisciplinary doctoral program in the education sciences and is housed in the School of Education and Social Policy.

(Continued on pages 10–11)
Recent Faculty Recognition

Awards and Honors
Professor and founding chair of medical social sciences David Cella, an IPR associate, was awarded the John Ware and Alvin Tarlov Career Achievement Prize at the International Society of Quality of Health Conference in Rio de Janeiro on October 6. The international award, given by the Health Assessment Lab/Medical Outcomes Trust, honors leaders in the development, promotion, and education of patient-reported outcome measures.

Social psychologist Thomas D. Cook gave the 2014 Annual Sidney Ball Memorial Lecture at Oxford University on October 20. Cook’s lecture, “The Major Assumptions of Evidence-Based Policy: Bringing Empirical Evidence to Bear,” was part of a series that has featured many distinguished speakers, including the influential economists John Maynard Keynes and James Meade, lawyer and Nuremberg trial judge Francis Biddle, and sociologist and Nobel Peace Prize winner Alva Myrdal.

On August 3 in Vancouver, the Academy of Management’s Network of Leadership Scholars awarded psychologist Alice Eagly the Eminent Leadership Scholar Award for her career contributions to the study of leadership. Following her acceptance of the award, Eagly gave a keynote talk on “Has Anything Changed for Women as Leaders?”

Economist Matthew Notowidigdo and his co-authors received the Hicks-Tinbergen Award on August 25 in Toulouse, France, for the outstanding article published in the last two years in the *Journal of the European Economic Association*. In the article, “What Good Is Wealth Without Health? The Effect of Health on the Marginal Utility of Consumption,” the researchers examine whether being in good or bad health affects a person’s consumption of goods and services by using a novel model that includes measures of subjective well-being, or “happiness” (see p. 6).

Sociologist Lincoln Quillian’s article, “Segregation and Poverty Concentration: The Role of Three Segregations,” won the American Sociological Association’s (ASA) 2014 Jane Addams Award for best paper in community and urban sociology at its August meeting in San Francisco. In it, Quillian helps to expand current understanding of concentrated poverty in minority communities by revealing a third type of segregation, in addition to racial and economic segregation—that is, the segregation of upper- and middle-income members of other racial groups from black and Hispanic neighborhoods.

The ASA also presented sociologist and IPR associate Heather Schoenfeld and her co-author with the Sociology of Law’s 2014 Distinguished Article Award. The award recognized “The Transformation of America’s Penal Order: A Historical Politicized Sociology of Punishment,” which analyzed the interactions between national and state-level policies over three distinct, interconnected historical periods to explain the growth in imprisonment between 1970 and 2001.

Grants
Health psychologist Greg Miller received a grant from the National Institutes of Health’s Heart, Lung, and Blood Institute to conduct research on the childhood origins of coronary heart disease disparities. With colleagues at the University of Georgia, he also received two NIH grants to study stress and health in rural African American youth.

In work funded by the Foundation for Child Development, developmental psychologist Lindsay Chase-Lansdale is collaborating with the Community Action Project of Tulsa to evaluate a model dual-generation program.

The National Science Foundation awarded biological anthropologist Thomas McDade a grant to study early environments, epigenetics, and inflammation during pregnancy.

With a grant from the Spencer Foundation, sociology professor and chair of IPR’s Program on Poverty, Race, and Inequality James Rosenbaum will build on his previous work on community college outcomes, focusing primarily on career entry dynamics from public and private two-year colleges.

Notable Media Coverage
In a Newsweek story on depression and blood testing, professor of psychiatry and behavioral sciences and IPR associate Eva Redei discussed her research on what could be the first blood test to diagnose depression effectively, September 16.

The New York Times quoted healthcare economist and IPR associate Leemore Dafny on the Affordable Care Act’s impact on hospital mergers, September 17.

Social psychologist Alice Eagly was quoted in a Time magazine story on the perceptions of women in leadership positions, September 25.

Political scientist and IPR associate Benjamin Page and social policy professor Fay Lomax Cook’s study on the political behavior of the extremely rich was written up in The Washington Post, September 30.

The New York Times featured a study led by economists David Figlio and Jonathan Guryan, which looked at the effects of birth weight on academic achievement and found that heavier babies often perform better in school, October 10.

Sociologist Jeremy Freese’s work on differential fertility was featured in a Slate story about the battle over same-sex marriage, October 10.

Political scientist Wesley Skogan’s research on high rates of violence among teens was cited in a Chicago Sun-Times piece identifying Chicago homicide rates across age groups, October 16.

Political scientist and IPR associate Rachel Beatty Riedl wrote about Burkina Faso’s power vacuum and the potential for democratization during periods of transition in The Washington Post, November 5.

(Continued on page 3)
Infographic: How Food Stamps Impact Long-Term Health

IPR economist Diane Whitmore Schanzenbach has conducted extensive research on the evolution and impact of the Supplemental Nutrition Assistance Program—better known as the food stamp program. The program did not begin everywhere at once but expanded county by county in the United States from 1961–75. In their working paper, Schanzenbach and her colleagues, Hilary Hoynes of the University of California, Davis, and Douglas Almond of Columbia University, study adults born between 1956–81 and explore the relationship between living in a county that had implemented the program, and the prevalence of obesity, high blood pressure, and diabetes, also known as metabolic syndrome diseases, later in life.

The infographic below illustrates one of the researchers’ core findings: Being in a food-stamp county made the biggest long-term difference for babies in utero and children up to age 5. For those adults in this group who grew up in disadvantaged families (as measured by their parents’ education level), their risk of developing metabolic syndrome was lower. The results point toward the importance of intervening during early life because, as Schanzenbach and her colleagues find in their working paper, the health impacts of the food stamp program on adult health are minimal if the child is first exposed after age 5.

Diane Whitmore Schanzenbach is associate professor of human development and social policy and an IPR fellow. Her working paper “Long-Run Impacts of Childhood Access to the Safety Net” (WP-12-17) is at www.ipr.northwestern.edu/publications/papers/.

Media Coverage (Continued from page 2)

The New York Times cited research by sociologist Leslie McCall in a story that discusses new ideas to reduce income inequality, including moving toward labor market redistribution, November 4.

Oncofertility specialist and IPR associate Teresa Woodruff was quoted in a National Geographic story on the need for more women in science, November 7.

Sociologist and African American studies researcher and IPR associate Mary Pattillo’s work on neighborhoods and segregation was referenced in a Washington Post story on diversifying urban neighborhoods, November 20.

Geophysicist and IPR associate Seth Stein wrote an opinion piece for Earth magazine, discussing how policymakers can better prepare for natural disasters, November 20.

Economist Diane Whitmore Schanzenbach weighed in on the costs and benefits of reducing class sizes in FiveThirtyEight, December 11.
Current research on political engagement tends to focus on citizens—their age, gender, socioeconomic status, or ethnicity. But in an IPR working paper, forthcoming in *Comparative Political Studies*, IPR political scientist Georgia Kernell turns her attention to political institutions themselves. “I’m interested in the role that parties and party organizations play in behavior,” she said.

In “Party Nomination Rules and Campaign Participation,” Kernell examines if differences in how candidates are nominated could influence how supporters campaign for their party. Political parties choose candidates in different ways: In some, like Australia’s Labor Party, party members select candidates. In others, such as the British Labour Party, only those at the top rung of the party ladder choose candidates. Other parties fall somewhere in between; for example, party elites might veto a nomination from party members.

Kernell tests two opposing hypotheses in her IPR working paper (WP-14-02) to evaluate how party structures influence voters. First, she argues that members participating in the nominating process might encourage campaign involvement. Alternatively, Kernell posits that allowing party members to nominate candidates, rather than those in the top ranks, could “expose internal party divisions” and “depress party participation.”

While other studies have examined the role of political institutions in shaping how individuals behave, Kernell was the first to examine on a crossnational level how party organizations influence voter behavior. To test her hypotheses, she used information about candidate selection mechanisms, with election information from the Comparative Study of Electoral Systems.

Her analysis shows that party supporters are more likely to campaign for their parties or engage in political persuasion when top party members select the candidates. In fact, candidate nomination methods influence campaign engagement as much as gender, age, and college education—three socioeconomic factors noted for their impact on political participation.

Kernell said the results surprised her. “Initially, I thought people would be more likely to participate if they have more authority over candidate selection,” she said. “It turns out people are less likely to campaign when regular party members, rather than party leaders, select candidates.”

Her research also reveals that a party’s size, ideology, heterogeneity, and incumbency influence participation levels. Supporters of left-leaning parties, for instance, are more likely to campaign than those in right-leaning ones. Those partial to less popular parties are also more likely to actively rally for candidates, as well as those with recent experience in government.

Georgia Kernell is assistant professor of political science and an IPR fellow.

Viability of Crowdsourcing for Population Research

Survey experiments have long been understood as a good idea, “but they’re hard and expensive to actually field,” said IPR sociologist Jeremy Freese.

Along with IPR political scientist James Druckman, Freese is co-principal investigator of Time-sharing Experiments for the Social Sciences (TESS), an NSF-funded online platform for survey experiments. Researchers apply to TESS, which collects data for their experiments at no cost to them. For the data collection, TESS contracts with GfK Knowledge Networks, a survey panel that guarantees a representative U.S. sample, using telephone and addressed mail survey techniques.

A fast-growing alternative to conduct survey experiments is to use a crowdsourcing platform such as Amazon’s Mechanical Turk (MTurk). Researchers can offer their surveys to anyone who signs up on the platform. Benefits include convenience, speed, price, and a high volume of responses. But are MTurk survey takers representative of the larger U.S. population? Freese and his colleagues—who included Druckman and several graduate students—decided to investigate if both platforms produced similar experimental results.

Using self-reported data, Freese and his colleagues found that Mechanical Turk participants were mostly male. They also tended to be younger, more liberal, and had attended more college than the GfK sample. And while MTurk participants did provide better quality data, Freese cautions that these data might not necessarily represent the entire population.

Freese and Druckman then ran experiments on MTurk using vignettes, where participants respond to hypothetical situations that replicated TESS experiments. Both MTurk and GfK respondents responded similarly in nearly all of these, with one exception. Freese attributes the difference to MTurk participants’ similar ages. Likewise, when the researchers replicated TESS experiments on MTurk not moderated by age or education, MTurk and GfK respondents responded similarly. But in experiments where age and education matter, GfK and MTurk responses differed greatly. In short, the choice of a survey panel such as GfK or a crowdsourcing platform such as MTurk can affect an experiment’s results, Freese said. Still, the crowdsourcing model does offer exciting possibilities, and the researchers are “bullish” about these online labor markets.

Jeremy Freese is Ethel and John Lindgren Professor of Sociology and an IPR fellow.
**IPR RESEARCH NOTES**

**Managerial Control and Performance Pay**

While widely used in business, pay-for-performance is a hotly debated topic in education. What if there was a better way to boost effort rather than, for example, simply paying teachers according to student test-score improvements?

“A lot of the conversation about motivating teachers is, ‘Let’s measure teacher performance and then pay them to teach well,’” said IPR economist Kirabo Jackson. But less of the conversation is devoted to their professional development to help them become more productive.

In a recent IPR working paper (WP-14-06), he and Cornell's Henry Schneider evaluate the role of managerial control in improving employee performance and compare it with performance pay. They studied the auto-repair industry, where performance pay is widespread, collecting data on mechanics, managers, customers, and repairs from 11 auto-repair shops.

To measure the effects of increased managerial control, the researchers gave out checklists in three randomly selected shops. About one-third of the time, the mechanics returned the filled out forms. The researchers discovered that when using checklists, the mechanics worked more hours and did more repairs. Shop revenue also increased by 20 percent. But when the experiment ended, the mechanics generally quit using the checklists—indicating that worker shirking was occurring.

In another experiment gauging performance pay, the researchers observed those mechanics who worked mainly on commission. A 6 percent increase in commissions lead to a jump of 11.7 percent in shop revenue. Because the checklist method brought in more money than increasing commissions, the researchers concluded that managerial control is a viable means of improving worker outcomes and that, in some cases, it might even be more cost effective than raises.

“It’s a lot cheaper to send out checklists and collect them than it is to give someone a 2 percent pay raise,” Jackson said.

Overall, though, the mechanics with the highest commissions performed best under the checklist experiment, suggesting that managerial control and performance pay might work best in tandem in compensation schemes.

Interestingly, though the mechanics with higher commissions brought in more revenue, they did not work more or conduct more repairs. Instead, they completed more expensive repairs. The study suggests that these mechanics might have “gamed the system” by talking customers into higher-priced repairs.

“The broad takeaway is that when looking for ways to improve a worker’s performance, using the stick and the carrot is only one way to do it,” Jackson concluded, noting a need for improved performance monitoring and guidance.

Kirabo Jackson is associate professor of human development and social policy and an IPR fellow.

**Mobile Media Use in the Middle East**

Twitter, Facebook, Instagram, and others have played an undeniable role in shaping the current sociopolitical landscape of the Middle East, yet most mobile media research to date has focused on the business aspects of its use—not, for example, how its content might influence public education and engagement.

IPR media scholar Rachel Davis Mersey is helping to launch a study that seeks to understand the development and diffusion of mobile media content in the Arab world. Working with John Pavlik of Rutgers University and Everett Dennis, dean of Northwestern’s campus in Qatar (NU-Q), the trio will deploy computer science methodology and data analysis with an eye toward creating a model of innovative mobile content designed to foster learning and engagement.

Most previous research on digital media innovation has focused primarily on how traditional businesses can create funding models and revenue structures in a networked, digital environment, Mersey explained. “Few studies of media innovation have focused on content and on how entrepreneurs might reinvent this basic building block of media,” she said.

“We have designed a study to address some of the questions about content and how it might be re-imagined as part of stronger relationships among media producers and consumers,” Mersey continued.

With funding from the Qatar National Research Program, the study will examine data from social networking sites, including location-based data, and will pair the data with field surveys and interviews with participants in Qatar and the United Arab Emirates.

This project marks a continuation of Mersey’s research on Middle East media and collaboration with NU-Q, where she was a research fellow in 2013. She served as a research adviser to the Media Use in the Middle East Study, an eight-nation survey conducted by NU-Q and Harris Interactive, which also recently received a grant from the Qatar National Research Program to develop a longitudinal study. This survey received international media attention for its comprehensive look at media use and attitudes among residents of eight Middle East nations. She also continues to work on projects in conjunction with news outlet Al-Jazeera.

Rachel Davis Mersey is associate professor of journalism and an IPR fellow.
IPR RESEARCH NOTES

What Good Is Wealth Without Health?

Can a person’s health affect his or her economic decisions, such as purchasing insurance or saving for retirement? In their award-winning journal article, IPR economist Matthew Notowidigdo, MIT’s Amy Finkelstein, and Dartmouth’s Erzo Luttmer use a novel approach that incorporates measures of subjective well-being, or “happiness,” to examine the effects of changes in health.

The three drew on data from the Health and Retirement Study, a representative sample of Americans 50 and older that includes questions on income, health, and happiness. They used the happiness data—specifically, people’s agreement or disagreement with the question, “Much of the time during the past week I was happy”—as a proxy for “utility,” or a person’s overall level of satisfaction.

Notowidigdo and his colleagues find that across the board, people with worse health report less satisfaction when buying goods or services. They also find that for wealthier people, happiness declines more when their health worsens, as compared with lower-income individuals. The researchers interpret these findings as evidence that marginal utility—the incremental gain in happiness from extra income or more consumption—is higher for the healthy.

The researchers suggest there’s a lesson here for health insurers, who could potentially reduce reimbursements for medical expenses. That way, people would have more to spend on other things besides high insurance premiums when they are healthy—and receive more satisfaction from such spending. When they become sick, on the other hand, they would pay more out-of-pocket for their healthcare, but as this research shows, they would derive less happiness from spending their money elsewhere in any case.

The three hope their paper will lead to further work on health and marginal utility, including examining the impact of specific chronic diseases on marginal utility and exploring these same connections in young people.

Notowidigdo also offers that the use of such happiness data could better inform economic research.

“I think the use of happiness data is part of a trend in economics towards actually talking to the subjects that we’re studying,” Notowidigdo said in a recent video about the article. “I’d like to think our paper is part of a trend toward the careful use of subjective data in all fields of economics.”

Matthew Notowidigdo is associate professor of economics and an IPR fellow. The article received the 2014 Hicks-Tinbergen Award from the European Journal of the European Economic Association.

Using Mobility Data to Track Health-Risk Factors

A neighborhood’s makeup can have a large impact on its adolescent residents—a violent one is associated with more adolescent problem behaviors, while a neighborhood offering more supports correlates with fewer of these behaviors.

In a recent IPR working paper, professor of medical social sciences and IPR associate Brian Mustanski and his colleagues capitalize on a natural experiment in which families moved from public housing tracts in Mobile, Ala., to more advantaged neighborhoods under the HOPE VI federal relocation program. The longitudinal data from this experiment will inform the National Institutes of Health’s Genes, Environment, and Neighborhood Initiative (GENI) study, led by Mustanski.

GENI investigates the interplay between environments (neighborhoods) and genetic factors, pointing to how a cluster of HIV risk factors—sexual risk taking, substance use, and conduct problems—might affect African American youth. The study also adds to previous IPR research on housing and mobility programs, including a substantial body of work on the Gautreaux and Moving to Opportunity programs and Section 8 housing vouchers.

Mustanski and his team analyzed interviews of individuals in HOPE VI and the control group in which they discussed their neighborhood environments before and after their relocation. The researchers also drew on U.S. Census data to catalog each neighborhood based on indicators of socioeconomic status, such as the numbers of unemployed and college graduates, in addition to racial makeup and residential stability.

The resulting data confirm the underlying assumptions of the GENI study: Youth and their neighborhoods were similar in both the experimental and control groups before the HOPE VI families relocated, and HOPE VI families relocated to improved neighborhoods.

These preliminary results, discussed in “Patterns of Neighborhood Relocation in a Longitudinal HOPE VI Natural Experiment” (WP-14-09), will enable Mustanski and his colleagues to compare neighborhood effects across both groups for the GENI study.

“It will be informative to examine whether there are differences in health and well-being between the HOPE VI and control groups and what factors may be mediating or moderating these differences,” the researchers wrote.

Brian Mustanski is associate professor of medical social sciences and an IPR associate.
A 5-year-old’s brain is an energy monster. It uses twice as much glucose (the energy that fuels the brain) as that of a full-grown adult, a study led by IPR anthropologist Christopher Kuzawa has found. It shows that energy funneled to the brain dominates the human body’s metabolism early in life and is likely the reason why humans grow at a pace more typical of a reptile during childhood.

“Our findings suggest that our bodies can’t afford to grow faster during the toddler and childhood years because a huge quantity of resources is required to fuel the developing human brain,” Kuzawa said. “As humans we have so much to learn, and that learning requires a complex and energy-hungry brain.”

The study, published in the Proceedings of the National Academy of Sciences, is the first to pool existing PET and MRI brain scan data—which measure glucose uptake and brain volume, respectively—to show that the ages when the brain gobbles the most resources are also the ages when body growth is slowest. At 4 years, when this “brain drain” peaks and body growth slows to its minimum, the brain burns through resources at a rate equivalent to 66 percent of what the entire body uses at rest.

The findings support an anthropological hypothesis that children grow so slowly, and are dependent for so long, because the human body needs to shunt a huge fraction of its resources to the brain in childhood, leaving little devoted to body growth. It also helps explain why at a certain point, it becomes difficult to guess the age of a toddler or young child by their size.

“Instead, you have to listen to their speech and watch their behavior,” Kuzawa said. “Body growth grinds nearly to a halt at the ages when brain development is happening at a lightning pace because the brain is sapping up the available resources.”

It was previously believed that the brain’s resource burden on the body was largest at birth, when the size of the brain relative to the body is greatest. The co-authors found instead that the brain maxes out its glucose use at age 5. At age 4, the brain consumes glucose at a rate comparable to 66 percent of the body’s resting metabolic rate (or more than 40 percent of the body’s total energy expenditure).

“The mid-childhood peak in brain costs has to do with the fact that synapses, connections in the brain, max out at this age, when we learn so many of the things we need to know to be successful humans,” Kuzawa said.

Christopher Kuzawa is professor of anthropology and an IPR fellow.
Reduce Teen Stress in High-Anxiety Times and Always
IPR psychobiologist offers strategies for helping adolescents conquer stress
By Emma Adam

It’s college application season, and millions of high school seniors across the nation are coping with the stress of writing application essays, filling out scholarship and financial aid forms, and worrying if they will be admitted to the school of their choice.

For some teens, these demands are added to the ongoing challenges of maintaining grades, keeping active in sports and activities, working for pay, and navigating relationships with friends, romantic partners, and family.

For generations, experts have called adolescence “a time of storm and stress,” which leads many to believe that the experience of high stress levels during the teen years is normal or “just a stage” we all go through on the journey to adulthood.

There is, however, a dark side to this dismissive stereotype. If stress is seen as an inevitable part of adolescence, we are less likely to intervene to reduce teen stress or protect our youth from its negative impacts.

We need to take adolescent stress seriously. Decades of research has found stress to be connected to immediate and long-term effects, including substance use, conduct problems, increased risk for depression, and, most tragically, self-harm and suicide.

According to the National Institute of Mental Health, approximately 11 percent of adolescents will suffer from major depressive disorder by age 18, and the Centers for Disease Control and Prevention report suicide to be the third leading cause of death for youth between the ages of 10 and 24.

Adolescent stress affects more than emotions and behavior; it is linked with changes in stress hormones such as cortisol, and alterations in immune functioning. Once into adulthood, the effects continue. High stress experienced during adolescence is associated with worse mental and physical health in adulthood.

The good news is that most common stresses parents and teens encounter during the college application season are typically not the type of stress that research finds to be most noxious to adolescent health.

Stress that is social or interpersonal in nature has the greatest impact on stress hormones. This social type of stress most strongly predicts adolescent and young adult depression and has been most clearly linked to adult health outcomes.

Lack of emotional support from parents, exposure to conflict with parents or peers, the loss of a loved one, exposure to violence or abuse, and social rejection, isolation or loneliness—these are the types of stressors that cause the adolescent body and brain to react the most strongly.

Not all adolescents are equally affected by stress. Genetic and personality risk factors make some adolescents more vulnerable than others to stress and its negative consequences.

However, all youth can benefit from measures that can help to reduce and contain stress. There is much to gain, and little to lose from taking measures to try to keep adolescent stress in check.

Getting regular (but not excessive) exercise, limiting caffeine, eliminating nicotine consumption, getting nine hours of sleep with sleep schedules as regular as possible, taking time out for safe, fun activities, and practicing meditation, yoga or other mindfulness-based techniques are all positive ways for teens to cope with stress.

Parents or guardians can play an important role also. Although teens may not always seem immediately receptive to parental efforts, expressions of warmth, support, and love from parents remain key stress-buffering measures throughout the adolescent years.

Talking with your adolescent about the sources of stress in their lives can also be a helpful step in identifying and helping to control their stress. Keeping expectations in check is another key strategy for both parents and teens.

Even as students eye the future and apply to colleges, hoping to stand out with high grade point averages, school activities, sports, and other extracurricular activities, there is a limit to what any one teen can handle.

Stress reduction strategies may work well for typical stress levels, but for teens (or parents) experiencing extreme stress and showing symptoms of depression and anxiety, seeking professional medical help is an important, and potentially life-saving, measure. You should report immediate thoughts of suicide to a hospital emergency room or call 911 or the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

We need to engage in a broader conversation on how to protect our youth from stress exposure, particularly the types of stressors most harmful for the body and brain. In the meantime, helping adolescents get in the habit of practicing stress reduction measures will help to limit the negative consequences of stress no matter when the stress occurs.

Yes, college application season is stressful. But treating this and other serious forms of social stress will benefit the health of young people now and in the many seasons of life to follow.

Emma Adam is professor of human development and social policy and an IPR fellow. Her opinion piece was originally from The Huffington Post on November 14.
What Ivy League Ties to Slavery Teach About Redemption

IPR psychologist finds value in redemption narratives

By Jennifer Richeson

Soon, some of the nation’s brightest students will learn whether or not they have been accepted for early admission at the country’s most elite universities. Few of these young people, however, are aware of how many of these hallowed institutions of higher learning have troubling aspects to their storied history, including Harvard, Yale, and my alma mater, Brown: Each has ties to the trans-Atlantic slave trade.

This troubling past, though, is increasingly being unearthed. In 2003, Brown University president Ruth Simmons opened an investigation into the school’s role in the slave trade. The findings exhumed unsettling accounts of the many ways in which important founders of the institution participated in and benefited from slavery, including the use of slave labor to construct the oldest and most iconic building on campus, University Hall. Rather than burying these revelations, university president Christina Paxson dedicated a slavery memorial sculpture, that now sits on the campus main green, during the school’s 250th anniversary celebrations this September, and in October, a new Center for the Study of Slavery and Justice was opened. Each of these initiatives stemmed from university officials’ desire to acknowledge and make amends.

While Brown’s situation is not remarkable, decades of social psychological research reveal that their proactive investigation and response is. Like most families, colleges and universities rarely want to air dirty laundry, much less do so in such an intentionally public manner. Although reactions from alumni are certain to be mixed, these actions are admirable.

Typically, past acts of wrongdoing by members of groups that we are loyal to—such as our collegiate, ethnic, and national ties—are incredibly difficult to stomach. Serious transgressions committed by members of these important groups, even acts from the distant past, challenge our perception that our group is moral, right, and deserving. Consequently, when confronted with acts of wrongdoing, especially those as reprehensible as slavery, we often respond defensively. Rather than accepting responsibility, we deny the events altogether, attempt to justify them, or even blame the victims for their suffering.

Recent research from my Social Perception and Communication Lab at Northwestern University, which will be published in Group Processes and Intergroup Relations, suggests such defensive reactions are not inevitable. Encouraging individuals to generate redemption narratives—the process of reflecting on past events and considering how they may have led to positive changes or growth in the group—leads individuals to respond to reminders of group transgressions in more pro-social ways.

In one of our three studies, for instance, 136 American citizens read a passage about the bombing of Hiroshima during World War II. Some participants were then asked to write a redemption narrative about this event, saying how they thought it may have transformed America and what lessons or insights might have been gained. Others, in a control group, were asked simply to write their reactions to the information presented in the passage. Compared with participants in the control group, those who generated a redemption narrative were less likely to perceive the bombing as justifiable and more likely to offer reparations to descendants of the victims. The results of two other studies with more than 200 American participants were consistent with this finding.

What kind of redemption can be found in the wake of such devastation? One theme common among the redemption narratives was the fostering of a new respect for the catastrophic damage associated with nuclear bombs and other weapons of mass destruction. Rather than triggering identity threat, in other words, seeking redemption seems to allow individuals to acknowledge horrific acts committed in the past by members of the very groups that currently serve as a source of pride.

According to MIT historian Craig Steven Wilder’s book Ebony and Ivy: Race, Slavery, and the Troubled History of America’s Universities, many colleges and universities have historical entanglements that are likely to threaten the self-image of its students, alumni, faculty, and staff. Northwestern University and the University of Denver, for example, are currently contending with the reality that the founder of both institutions, John Evans, is culpable for the 1864 Sand Creek Massacre—the slaughter of some 150 Native Americans by federal soldiers in Colorado.

Imagine if we all considered what there is to learn from past acts of wrongdoing committed by members of groups that we value, as our research participants and Brown University did, rather than attempting to absolve our threatened identities through denial, rationalization, or victim-blaming. To be clear, generating a redemption narrative is unlikely to be an effective remedy for every violent intergroup conflict or historical instance of mistreatment. And finding redemption in one’s own group’s wrongdoing will not ease the pain and suffering of victims. Given the many unacknowledged instances of past wrongdoing whose legacies continue to shape contemporary relations between groups, however, redemption may provide a foundation to begin the process of reconciliation.

Jennifer Richeson holds the MacArthur Chair and is professor of psychology and an IPR fellow. The Boston Globe ran her opinion piece on December 7.
Training a New Generation of Education Researchers

IPR faculty organize IES-sponsored workshops

This summer, IPR and Northwestern co-hosted two workshops aimed at developing current researchers’ methodological research skills, including a new workshop specifically designed to boost the grant-seeking capacity of faculty from institutions that have historically served minority students.

“Minority-serving institutions [MSIs] tend to be rather under-resourced institutions, but they have had a historic role in providing opportunities for minority students,” said IPR education researcher and statistician Larry Hedges, who co-organized the workshops.

With continued support from grants through the National Center for Education Research (NCER) in the Institute of Education Sciences (IES)—the research wing of the U.S. Department of Education—Hedges co-led both the MSI workshop and the eighth annual cluster-randomized trials (CRT) workshop, with Spyros Konstantopoulos of Michigan State University.

Research Design Workshop

Fifteen researchers from institutions such as Queens College, Tuskegee University, and the University of New Mexico arrived in Evanston on July 21 for the first Research Design Workshop. Over two and a half days, the scholars received instruction on the fundamentals of rigorous research design, including threats to validity, regression, and a brief overview of hierarchical linear modeling.

While this year’s MSI workshop was the first of its kind, planning for an MSI-specific workshop has been years in the making.

Katina Stapleton, an IES education program officer who presented at the workshop, said that the idea for the workshop came out of a 2012 White House Federal Summit for Minority Serving Institutions she attended. “I asked my colleagues if there were any opportunities for NCER to help build capacity at MSIs,” Stapleton recalled.

Christina Chhin, an IES education research analyst, added, “Given the experience that Michigan State and Northwestern already had with effectively training researchers, we thought they would be able to adapt their current [summer workshops] to MSI researchers.”

Soon after, Hedges began working with IES program officers to create a workshop that would, according to Hedges, “help improve the research methodological skills of faculty from minority-serving institutions, so they could better participate in the world of rigorous research in education science.”

Hedges and Konstantopoulos covered many topics including growth modeling and external validity. Chris Rhoads, a former IPR graduate research assistant now at the University of Connecticut, and Jessaca Spybrook of Western Michigan University, also led sessions, mentoring participants during their projects.

“The workshop was a wonderful opportunity to review concepts that will help me improve the rigor of the evaluation work that I do,” said participant Denise Carrejo. As assistant director at the Center for Institutional Evaluation, Research, and Planning at the University of Texas at El Paso (UTEP), one part of Carrejo’s job involves helping UTEP faculty members improve students’ educational success. She also works on projects to help improve UTEP students’ postgraduate opportunities.

Carrejo said she applied because she wanted to learn new ways to help strengthen the evaluation plans in education-research proposals coming from UTEP, and more about IES.

“I learned about the different types of projects IES funds, and the resources that they have to help researchers develop their proposals,” Carrejo explained.

The workshop also created a sense of community among the participants that has lasted beyond the initial two and a half days. “We’ve used emails to inform each other about a recent policy briefing that was bound to impact minority-serving institutions,” Carrejo noted, along with other updates on each other’s research.

Institute on Cluster-Randomized Trials

Prior to the MSI workshop, the two-week Summer Research Training Institute on Cluster-Randomized Trials (CRTs) took place from July 7–17.

Led by Hedges and Konstantopoulos, the CRT Institute delves into the use of cluster randomization—a methodological tool that helps to account for group effects of teachers and classrooms when measuring an intervention’s effects on individual student achievement.

The CRT Institute is also designed to improve education researchers’ ability to apply for competitive grants, and one hope is that those who participated in the MSI workshop will eventually apply for the CRT Institute as well, Stapleton noted.

Carla Firetto, a postdoctoral researcher at Pennsylvania State University, is working on an IES-funded project promoting high-level text comprehension. She participated in the CRT Institute to improve her grant applications and the level of funding she could apply for: “The workshop allowed me to know more about what type of studies [IES] is looking to fund as well as more details about all the components and requirements necessary in order to create a successfully funded proposal.”

Find out more at www.ipr.northwestern.edu/workshops.
IPR-Led Multidisciplinary Education Training Expands
Predoctoral program will partner with local high school for applied research

Northwestern University’s Multidisciplinary Program in Education Sciences (MPES) received a $4 million grant from the Institute of Education Sciences (IES), its third since the program’s creation in 2004, to train doctoral students from different disciplines in state-of-the-art education research methods. The ninth cohort started in the fall, and it is the first to participate in a unique research partnership with Evanston Township High School (ETHS).

“We want people to do useful and usable research,” said IPR economist Diane Whitmore Schanzenbach, who directs the program. She noted how hard it is to train people who can combine cutting-edge methodology, ask and answer important questions, and then translate their research so educators can use it. “That’s a tall order, but that’s what we want,” she continued, “and looking at our MPES alums, that’s the type of work they do.”

Additionally, the new partnership with ETHS will provide an out-of-the-classroom experience that Schanzenbach says is rare for graduate students.

“We’re going to send in teams of graduate students who will try to answer an applied question that they have,” she said. “It’s extremely unusual for a graduate student to have an opportunity like that, and it’s really exciting.”

Northwestern was one of five universities that IES awarded the 2014 training program grants to; the others are New York University, Stanford University, the University of Chicago, and the University of Virginia.

The three-year training program allows Northwestern PhD students from a number of disciplines to pair multidisciplinary coursework, which Schanzenbach considers a necessity to study education well, with conducting research with affiliated MPES and IPR faculty and completing the ETHS applied research practicum. Schanzenbach hopes the practicum will improve upon a program that has already produced 52 alumni.

Alumni of the program credit it with giving them a knowledge base to understand education policy issues from multiple perspectives, as well as providing a community of fellow students and faculty with related interests.

Aaron Sojourner (PhD, Economics ’09), an assistant professor at the University of Minnesota’s Carlson School of Management, said the multidisciplinary approach of MPES was an ideal fit for him.

“I wanted to understand how to help people reach their potential and live lives where they have more control and agency, and that depends on skills and human capacity,” Sojourner said, noting his appreciation for being able to take a variety of classes all focused on important policy and human development issues. “So where do those things come from? That’s what got me interested in education as a field.”

Vivian Wong (PhD, Human Development and Social Policy ’10) is an assistant professor at the University of Virginia’s Curry School of Education, who credits MPES with bringing together a heterogeneous education research community.

“I think different disciplinary perspectives have their strengths and weaknesses,” Wong said. “It’s important to have an understanding and an appreciation of the ways in which researchers from different disciplinary perspectives approach education research. These are important skills for collaborating and working with people from various disciplinary backgrounds in order to improve the overall quality of education research.”

Wong, a methodologist focused on evaluation of education policies, was named an IES Outstanding Predoctoral Fellow for her work on regression discontinuity designs conducted with her thesis adviser, IPR social psychologist Thomas D. Cook.

“The questions I worked on were embedded in real-world problems that researchers encountered in an evaluation setting. In this case, it was about appropriate methods for evaluating No Child Left Behind,” Wong continued. “That’s a nice opportunity to have—to have your methodology work grounded in solving problems that applied researchers actually face.”

Columbia University assistant professor Elizabeth Tipton (PhD, Statistics ‘11) said her experience since graduating has shown the rarity of skills a multidisciplinary background provides.

“When I was in graduate school, [IPR education researcher] Larry Hedges, my adviser, always said there was a very small number of people who could do both—a statistician and have a background in education research,” Tipton said. “Being on a hiring committee, I’ve found it is true. I think the skill set I got in MPES is not one that many people have—being able to do statistics and know something about a content area.”

The MPES alumni also credit the program for creating a community that would change and shape their research during and after their time at Northwestern.

“The most long-lasting part of it has been building a network of people,” Tipton said, noting she still frequently consults and collaborates with fellow MPES participants and faculty. “I don’t think I would have met other people with this combination of interests without a program like this.”

Sojourner agreed with Tipton, saying he still seeks advice from his fellow MPES students on his current work. He added, “If I hadn’t gone into the program, I don’t think I would have been able to work on these topics as much as I have. It got me invested in the area of education and helped me to build expertise in this area—and that has influenced the kind of questions I’m equipped to handle and make contributions in.”

For more about the program, go to www.sesp.northwestern.edu.
Congress vs. the President. Democrats vs. Republicans. The House vs. the Senate. These days, can any politicians get along or get anything done? Through her research, IPR political scientist Laurel Harbridge seeks to bring clarity to the emotional—sometimes hostile—world of American politics, to understand how and why our leaders behave the way they do.

“For me, the interest stems from being the sort of analytic person who wants to understand the world around them,” Harbridge said. “With something like politics, people can feel like it’s moral, like one side’s right, one side’s wrong.”

Harbridge, an assistant professor of political science who came to Northwestern after earning her PhD from Stanford University in 2009, studies how institutions interact with policymaking, how party structures act as barriers to change, and how public expectations for bipartisan behavior compare with elected officials’ actions.

“I always wanted to understand more of why things happen,” she recounted, in explaining why she looks at congressional incentives and institutional arrangements. “Are there explanations beyond whether someone has good ideas or bad ideas?”

**Parties and Polarization**

One of Harbridge’s main areas of research looks at the role of institutional features in partisan polarization.

“The conventional wisdom is this kind of ideological story where the policy positions of members of the two parties have grown farther apart,” she said. “While that’s part of the story, I don’t think that’s the whole story.”

Her ongoing research, compiled in a forthcoming book, tries to better understand polarization and partisan conflict, and how changes in party strategy could lead to increased polarization.

While researchers and the media point to roll call votes as one metric that shows a growing divide between parties, Harbridge decided to examine which bills are being called for a vote in the first place.

“There are reasons why particular bills move forward sometimes and not others,” she said. Looking at the underlying coalitions on a broader set of bills and those attended to by congressional leaders allows her to “disentangle” whether partisanship in voting reflects a lack of common ground between members of Congress or results from the parties deliberately “manufacturing conflict.”

Harbridge found in the 1970s and early 1980s, party agendas heavily favored bills with bipartisan coalitions because the majority party was usually split due to their representation of heterogeneous districts. By the 1990s, and continuing to today, however, that had changed.

“As you got a better alignment over time with Democrats representing places that are liberal and aligned with their policy positions, and Republicans representing places that are conservative and aligned with their policy positions, the parties are freer to pursue more partisan pieces of legislation,” she said.

**Public Views on Bipartisanship**

Another research stream focuses on public views of bipartisanship. Congress’ plummeting public approval ratings—now at their lowest point ever—have led many to believe that Americans favor bipartisanship and want to see more compromise in Congress.

In a 2014 article in *Legislative Studies Quarterly*, originally an IPR working paper, Harbridge and her colleagues offer a more nuanced look at what people really want from congressional policymaking. When people see a possible policy victory for their party, they view bipartisan compromise in the same negative way as a win for the opposing party.

“The public might say they want bipartisanship and more compromise for Congress to get things done,” Harbridge said, “but they aren’t necessarily providing those incentives in their own party.”

Harbridge has multiple projects building off this line of research. One examines how the public views gridlock, revealing that voters prefer the other party reaching its objectives over gridlock. Yet they view gridlock more favorably when they see it as stemming from ideology, as opposed to partisan fighting. Another project surveys state legislators, trying to understand why they vote against pieces of legislation that move policy closer to their most preferred position.

Her interest in gridlock, i.e., inaction, stems from different responses to gridlock within Congress in the current period and past eras. In the past, high levels of gridlock caused parties to shift from partisan to more bipartisan strategies. The current Congress, however, has faced extreme gridlock for an extended period, with no indication that will change.

She pointed out how in the current and previous Congress, Republicans focused their agenda around highly partisan bills, despite divided government.

“It’s ended in gridlock and garnered very little legislative success, and yet they don’t seem to be changing their strategy,” she remarked. “So I’m trying to grapple with, and understand why, gridlock isn’t as bad as many would think it should be—and understand what explains why they would pursue partisan legislation and not fear the electoral consequences enough to change their behavior.”

Laurel Harbridge is assistant professor of political science and an IPR fellow.
Faculty Spotlight: Quincy Thomas Stewart
Dreaming of Data and Demographic Models to Study Inequities

While demographic data might not be the stuff of most people’s dreams, for IPR fellow Quincy Thomas Stewart, it is—and applying advanced mathematics to social science issues is what led him to becoming a social demographer.

“I was always interested in understanding racial inequality—how it emerged, how it was maintained, and how it was sustained,” Stewart said. So it seemed natural for him to pursue a degree that would allow him to “sit around and solve cool math problems all the time about things that … really mattered.”

“I saw these methods [when looking at graduate programs], and I thought, ‘This is the best thing ever, and I need to do this for the rest of my life,’ ” he said, explaining his decision to pursue his PhD in demography and sociology at the University of Pennsylvania, which he completed in 2001.

Agent-Based Modeling and Racial Disparities
To examine the dynamic processes underlying discrimination and inequities, Stewart has had to come up with new ways to quantify old problems. He has multiple research streams that use agent-based models—simulations of individual or group interactions that assess their behavioral impact on an entire system—to study elements of racial inequality.

For example, one project examines a quandary he and his colleagues observed among African American undergraduate women: They feel compelled to signal to their African American peers that they are “black enough,” while signaling to the larger society that they are “white enough” to be American.

The research, with Rachelle Winkle-Wagner of the University of Wisconsin-Madison and the University of Maryland’s Rashawn Ray, expands upon and interrogates a popular theory suggesting that minority students are socially marginalized, which contributes to the racial disparities in educational achievement.

Another project that will be in his forthcoming book, “How Many Racists? How Everyday People Contribute to a System of Social Inequality,” explores why there seems to be a significant decline in the number of people who hold racist beliefs, yet racial inequality remains high in many arenas.

Using a simple two-person Nash Bargaining model, Stewart’s investigation demonstrates that a system built on biased social institutions, even though administered or used by nonbiased individuals, can maintain racial inequality with a few, or even no, racists.

Racial Disparities in Causes of Mortality
Stewart set out to examine racial differences in mortality and how they have changed since the Jim Crow era, but quickly realized there was a “flaw” in previous research methods on disparities in mortality rates.

“So that’s when I set everything else aside,” he explained, “to write a paper to say, ‘Let’s come up with a better measure to estimate the role of underlying causes in mortality disparities.’ ”

While the usual method of causal decomposition quantifies disparities as differences in mortality rates, it does not account for the fact that many underprivileged groups are more likely to die from nearly all causes. Stewart’s “cause-deleted index” calculates underlying causes in mortality disparities as the change in the relative risk of dying that is related to deleting a specific cause.

He found that using both methods together provides researchers and policymakers with a more complete picture of the disparities.

After developing the index, Stewart returned to examining the data from 1940–2000.

“The big takeaway right now is that [racially-based] mortality disparities have been very robust over the past 60 years, and they look very similar over this time period,” he said.

Understanding Acknowledgement Networks
A new research project Stewart is particularly excited about—and the one that keeps turning up in his dreams—is his study of academic networks with Saheli Nath, a student in a doctoral program that is joint between the Kellogg School of Management and the department of sociology. With the help of IPR summer undergraduate research assistants, Stewart has cataloged the acknowledgements from articles in five prominent sociology journals—Demography, Social Forces, Social Problems, American Journal of Sociology, and American Sociological Review—between 1980 and 2012.

“We’re looking at how this network is structured, and particularly how it’s structured by field, and we’re using the network models to make inferences about who’s connected and which groups of individuals are tightly networked,” he explained, noting that data analysis began over the summer.

“One of the preliminary findings is that you don’t see many women in the top 20, 25, or 50 central actors until the late ’80s or early ’90s,” Stewart pointed out. “Then you see women become more prominent in it.”

“I keep dreaming of ways—every night almost—of how to look at the data differently and what different things we can do with it,” Stewart said.

Quincy Thomas Stewart is associate professor of sociology and an IPR fellow.
It's hard to pin a label on Larry Hedges—education scholar, statistician, methodologist, social psychologist, policy researcher—all of the above would apply. The number of awards and honors he has accumulated over the course of his career, from elected fellowships to lifetime contributions, attest to his expertise and standing. But for all the recognition, being at the forefront of methodologically rigorous, quantitative education research has been “a mighty lonely place,” Hedges said.

Yet in the world of education research, the times they are a’ changin’—and Hedges is leading efforts to train and build a community around a new generation of multidisciplinary education researchers.

Graduating from Stanford University with a doctorate in mathematical methods in education research in 1980, Hedges said he came at “the tail end of the last boom” in education research and quantitative methods. By then, research-world “fashion” had started gravitating toward more qualitative methods as a belief took hold that quantitative methods had “failed.”

In the past 10–15 years, however, Hedges pointed to a “reawakening” to the importance and value of quantitative research, particularly in the field of education. This interest has been embodied by the creation of the Institute of Education Sciences in 2002, the research wing of the Department of Education that was modeled after the National Institutes of Health, and to whose board President Barack Obama appointed him in 2012. It has also been embedded in laws, such as the No Child Left Behind Act of 2001 (NCLB).

“NCLB has been much reviled for a lot of things are wrong with it, but it also did some really good things,” Hedges said. “With the stroke of a pen, it created a demand for smart people to do high-quality research to support efforts to improve education.”

NCLB, IES, and the increased flow of funding for more quantitative education research created a demand for a new kind of “education scientist” and forever “changed the world of education research,” Hedges said.

**Pioneering Meta-Analysis**

Having published nearly 200 journal articles in at least six different fields, Hedges is well placed to promote the quantitative revitalization of education research. He is widely recognized for his groundbreaking statistical work in meta-analysis, which combines findings across studies on the same issue. He has co-authored many of the topic’s most widely cited works, including the seminal 1985 *Statistical Methods for Meta-Analysis*, with Stanford’s Ingram Olkin. Two of the many important questions Hedges has clarified using meta-analytic methods are furthering debates over whether school financing matters to student outcomes (it does) and examining whether there are actually more high-scoring (and low-scoring) boys than girls on achievement tests in representative samples (there are).

The importance of meta-analysis, Hedges explained, is that it pulls together many studies, each of which meets certain methodological requirements in its own right. By providing more results than any one study could have by definition, it continued, it also “smoothes out” the particular eccentricities of the combined studies, making a meta-analysis more reliable than a single study.

Using meta-analysis also solves the problem of “dueling experts,” Hedges went on. When Expert A is pitted against Expert B, it gives the impression of conflict. Yet he sees multiple studies all pointing to a similar outcome as allowing a field to speak with “one voice and a multitude of subtones.”

The development of research-review organizations such as the Cochrane Collaboration for health and the What Works Clearinghouse for education, where Hedges also played a founding role, have also helped make it easier to identify high-quality research and effective interventions.

**Filling the Demand for More Rigorous Studies**

More recently, government agencies have found themselves being asked to justify their programs and budget requests through the inclusion of tried-and-tested interventions and policies, Hedges said. This new mindset of proposing solutions that “work” is being engrained into administrative culture. While politicians might cycle in and out of government, Hedges pointed out that career employees do not.

This has ratcheted up demand—not just in education research—for more rigorous studies. “The whole process suddenly created a lot of demand for smart people to do high-quality research,” he said, “but we had limited human capital.”

With support from IES and others, he started an interdisciplinary postdoctoral fellowship program at Northwestern to train young education researchers and launched a series of workshops on cluster-randomized trials to train those already in the field (see p. 10). To support this new community, he co-founded the Society for Research in Educational Effectiveness (SREE) in 2005 and its *Journal of Research on Educational Effectiveness*. “We were prompted to create SREE, a new professional society for graduates on up, to support a new kind of professional identity for a new kind of education researcher,” Hedges said.

Thanks to his efforts, the field is on its way to becoming more crowded—and a little less solitary.

*Larry Hedges is Board of Trustees Professor, professor of statistics, education and social policy, and psychology, and an IPR fellow. He is also founding director of IPR’s Center for Quantitative Methods for Policy Research, or Q-Center.*
Connecting Social Environments to Health Disparities

A pivotal professional moment that shaped IPR health psychologist Edith Chen’s career came when she received an opportunity to do a postdoctoral fellowship with health pioneer Karen Matthews at the University of Pittsburgh.

“I wanted to do work that could make a difference in young people’s lives,” Chen recalled, “by addressing research questions that also represent pressing problems in our society today; for example, trying to understand why health disparities exist and what could possibly help to make things better.”

Working with Matthews, who was one of the first social psychologists to clinically study the “mind-body” connection to health, led Chen down a new path—from work in graduate school examining how pain and anxiety affect children undergoing serious medical procedures to more broadly understanding the factors that contribute to health disparities in children.

Today, Chen, with IPR health psychologist Greg Miller, is co-director of the Foundations of Health Research Center, a laboratory housed at Northwestern. Chen explained they created it to examine “how social environments get under the skin and how they do that differentially in different populations across our society.” In doing so, they also seek to “identify protective factors that can buffer those who come from low-income families from poor health over a lifetime.”

**Family Asthma Study**

One of the center’s flagship projects is the Family Asthma Study, led by Chen. The R01 study, which receives support from the National Institutes of Health, seeks to explain why children and teens from low-socioeconomic status (SES) backgrounds have worse asthma outcomes than their counterparts with higher SES.

“We started the study in order to better understand childhood health disparities by using the example of the most common chronic illness in childhood,” she said.

Currently in its data-collection phase, the study looks at multiple layers of factors—diving from neighborhood and family environments down into an individual’s psychology and her organs, cells, and genes—in order to understand the impact different social factors can have on the biological pathways that lead to worse clinical asthma in youth.

**Mentoring and Health**

Another line of Chen’s research involves testing whether mentors can improve cardiovascular risk profiles among mentees from low-SES backgrounds and if mentoring holds positive health effects for the mentors themselves.

A 2013 JAMA Pediatrics article by Chen and colleagues, “Effect of Volunteering on Risk for Cardiovascular Disease in Adolescents: A Randomized Control Trial,” showed lower levels of cardiovascular risk markers, including cholesterol and body mass index, in adolescents who were randomly assigned to volunteer with elementary school children compared with adolescents who were assigned to a control group.

Chen is encouraged by “the idea of a two-way street of benefits. Mentees potentially benefit by having a stable, positive role model in their lives, and mentors benefit from engaging in helping behaviors that turn out to benefit their own health.”

**Skin-Deep Resilience**

In addition, Chen is taking part in a new line of research testing whether youth from low-SES households pay a “physiological cost of success.” Despite growing up in poor areas with curtailed opportunities, a number of children manage to perform quite well, advancing in school and in life by traditional measures of success from good grades to well-paying jobs. But do such traits translate to better health as well?

“We initially reasoned that, if disadvantaged children were succeeding academically and emotionally, they might also be protected from health problems that were more common in lower-income youth,” she said. “As it turned out, the exact opposite was true.”

In a 2013 study on “Is Resilience Only Skin Deep?” published in Psychological Science, Chen and her colleagues looked at resilience in a group of African American youth in the rural South. They found that the group of kids who came from low-SES families, but were positively evaluated by teachers on competence between ages 11 and 13, were less likely to suffer from depression or have adjustment problems by the age of 19. At the same time, however, these youth had much higher markers of physiological stress.

It appears that in difficult environments, Chen said, the energy spent to excel academically and to thrive socially and emotionally takes a serious physiological toll.

Chen and her colleagues are planning a study on first-generation college students to further examine skin-deep resilience, and are also thinking about the types of interventions that could help to reduce the adverse physiological profiles that accompany this phenomenon.

Edith Chen is professor of psychology and an IPR fellow. She is co-director of the Foundations of Health Research Center at Northwestern and IPR.
Recent Faculty Books

Possessing Spirits and Healing Selves
Embodiment and Transformation in an Afro-Brazilian Religion

Deep religious engagement can have a positive impact on a person's physical and mental health, IPR anthropologist Rebecca Seligman demonstrates in her new book, Possessing Spirits and Healing Selves: Embodiment and Transformation in an Afro-Brazilian Religion.

Seligman's fieldwork among spirit possession mediums of Brazil's Candomblé religion enabled her to document the “transformative” experiences of those who became possessed or inhabited by religious spirits.

The Candomblé religion was brought to Brazil by slaves during the colonial period. The religion has remained vibrant, and in recent decades has become increasingly popular in urban areas and among young people. Seligman was drawn by the religion’s rising popularity since it offered her the opportunity to study spirit possession not as “something that was marginalized and ostracized, but as this enormously popular practice,” she said.

Candomblé ceremonies include choreographed dances and other ritual practices that enable deities to possess certain worshippers. Through observation, ethnographic interviews, and psychophysiological measurements, Seligman found that such transformative religious experiences can improve mental and spiritual health, especially for people who suffered emotional distress before becoming involved in the religion.

She discovered that the autonomic nervous systems of people who were deeply involved in the religion looked different from the nervous systems of people who were involved in less intense ways. The difference in autonomic nervous system functioning “seems to be correlated with the positive health benefits that these people experience by becoming involved in the religion,” she said.

She observes that the book’s investigation of religious devotion can serve as a jumping-off point for understanding the links between mind and body that affect peoples’ lives in many ways.

The mind-body connection can “include lots of negative effects—like the ways that discrimination, stigma, and loneliness adversely affect health,” Seligman said. “But also more positive effects—like the health benefits of social support and praise, or the positive health outcomes associated with practices like yoga and mindfulness.”

Rebecca Seligman is assistant professor of anthropology and an IPR fellow.

Playing Against Nature
Integrating Science and Economics to Mitigate Natural Hazards in an Uncertain World

Should we build levees to prevent flooding, or should we prevent people from living in low-lying areas? How much money should we spend on making existing buildings earthquake-resistant, and how much money should we spend on building new ones to replace those devastated by natural disasters?

In a new book, geophysicist and IPR associate Seth Stein and his father, economist Jerome Stein, explore our often-flawed approach to natural hazard policies. They suggest that current policies do not take into account the many ways that science, economics, and risk analysis play into each situation of hazard. They recommend an approach to natural hazards combining policy with geoscience, engineering, and economics.

They advise humility in the face of nature, as well as improved communication between those who create natural hazard policies and those who use them.

“As scientists, we want to improve the science, but I think we also need to communicate the uncertainties better,” Seth Stein said at the International Disaster and Risk Conference in Davos, Switzerland, on August 28. “People on the outside should ask us, ‘How much do you really know about all this?’”

Seth Stein is William Deering Professor of Earth and Planetary Sciences and an IPR associate.
Recent IPR Working Papers

**Quantitative Methods in Policy Research**

The Generalizability of Survey Experiments (WP-14-19)
by Kevin Mullinix, James Druckman (IPR/Political Science), and Jeremy Freese (IPR/Sociology), Northwestern University

Experiments embedded in surveys have become a central methodology across the social sciences and, in particular, political science. Researchers can combine experiments’ causal power with the generalizability of population-based samples. Yet, the expense and difficulty of employing population samples has led many to turn to online convenience samples, such as the crowdsourcing platform Amazon Mechanical Turk (MTurk). This has reinvigorated debates about the external validity of convenience samples in experiments. Mullinix, Druckman, and Freese identify and test conditions where these inexpensive convenience samples provide experimental inferences similar to those of more costly population samples. Results from 20 experiments implemented on both types of samples show that, as predicted, results are often highly similar and are predictable in their divergence. Consequently, social scientists can often draw generalizable causal inferences using convenience samples that are less than 5 percent of the cost of population-based samples.

Bayes and BOGSAT: Issues in When and How to Revise Earthquake Hazard Maps (WP-14-14)
by Seth Stein (Earth and Planetary Sciences/IPR), Bruce Spencer (IPR/Statistics), and Edward Brooks, Northwestern University

Earthquake hazard maps play an important role in the formulation of building codes throughout the United States and much of the world. An important question is what to do after a major earthquake yielding shaking larger than anticipated in a hazard map. Common practice is to revise the map to show increased hazard in the heavily-shaken area. However, a new map that better describes the past does not necessarily better predict the future. The researchers examine the logic underlying map revision and argue that Bayesian modeling can play a useful role in deciding whether and how to revise the maps to improve forecasting the future.

Metrics for Assessing Earthquake Hazard Map Performance (WP-14-13)
by Seth Stein (Earth and Planetary Sciences/IPR), Bruce Spencer (IPR/Statistics), and Edward Brooks, Northwestern University

Recent large earthquakes that did great damage in areas predicted to be relatively safe illustrate the importance of criteria to assess how well earthquake hazard maps used to develop codes for earthquake-resistant construction are actually performing. At present, there is no agreed way of assessing how well a map performed and thus whether one map performed better than another. The fractional site exceedance metric implicit in current maps, that during the chosen time interval the predicted ground motion will be exceeded only at a specific fraction of the sites, is useful but permits maps to be nominally successful although they significantly underpredict or overpredict shaking, or to be nominally unsuccessful but do well in terms of predicting shaking. The researchers explore some possible metrics that better measure the effects of overprediction and underprediction and can be weighted to reflect the two differently and to reflect differences in populations and property at risk. Although no single metric alone fully characterizes map behavior, using several metrics can provide useful insight for comparing and improving hazard maps.

**Politics, Institutions, and Public Policy**

Citizens’, Scientists’, and Policy Advisors’ Beliefs About Global Warming (WP-14-17)
by Toby Bolsen, Georgia State University; James Druckman (IPR/Political Science), Northwestern University; and Fay Lomax Cook (IPR/Human Development and Social Policy), Northwestern University

Few political debates have attracted as much attention as the ones surrounding global warming. Extant work has identified numerous factors that shape citizens’ beliefs on this issue, yet few studies compare the views of the public with other key actors in the policymaking process. The researchers draw on data from simultaneous and parallel surveys of (1) the U.S. public, (2) scientists who actively publish research on energy technologies in the United States, and (3) congressional policy advisors. They find that beliefs about global warming diverge markedly in comparing the views of the public, scientists, and policy advisors. Scientists and policy advisors are more likely than the public to express a belief in the existence and anthropogenic nature of global warming; however, similar to the public, policy advisors—and to a lesser degree scientists—are ideologically polarized over global warming.

(Continued on page 18)
Differential Fertility as a Determinant of Trends in Public Opinion About Abortion in the United States (WP-14-11)
by J. Alex Kevern and Jeremy Freese (IPR/Sociology), Northwestern University

Differential fertility is frequently overlooked as a meaningful force in longitudinal public opinion change. The researchers examine the effect of fertility on abortion attitudes, a useful case study due to their strong correlation with family size and high parent-child correlation. They test the hypothesis that the comparatively high fertility of pro-life individuals has led to a more pro-life population using 34 years of General Social Survey data (1977–2010). They find evidence that the abortion attitudes have lagged behind a liberalizing trend of other correlated attitudes, and consistent evidence that differential fertility between pro-life and pro-choice individuals has had a significant effect on this pattern. Future studies should account for differential fertility as a meaningful force of cohort replacement in studies of public opinion where parents and children are likely to share the same attitude.

Measuring Drug and Alcohol Use Among College Student-Athletes (WP-14-10)
by James Druckman (IPR/Political Science), Northwestern University; Mauro Gilli, Northwestern University; Samara Klar, University of Arizona; and Joshua Robison, Aarhus University

Few issues in athletics today receive more attention than drug and alcohol usage, especially when it comes to college athletics. The authors seek to correctly address self-report biases related to banned drug usage and heavy drinking. The researchers employ an experimental measurement technique. The results suggest that an overwhelmingly greater percentage of student-athletes from a major conference knowingly engage in these two behaviors than self-reports indicate. Specifically, they find 37 percent of respondents report having knowingly taken banned performance enhancing drugs (compared with 4.9 percent who directly admit to doing so when asked), and 46 percent consumed more than five drinks in a week (compared with about 3 percent who openly admit to doing so). The authors provide clear evidence for the tremendous extent of self-under-reporting when it comes to drug and alcohol usage among college athletes.

Performance Measurement and Rewards

Investment Subsidies and the Adoption of Electronic Medical Records in Hospitals (WP-14-12)
by David Dranove (IPR/Kellogg), Northwestern University; Craig Garthwaite, Northwestern University; Christopher Ody, Northwestern University; and Bingyang Li, Cornerstone Research

In February 2009, the U.S. Congress unexpectedly passed the Health Information Technology for Economic and Clinical Health Act (HITECH). HITECH provides up to $27 billion to promote adoption and appropriate use of Electronic Medical Records (EMR) by hospitals. Dranove, Garthwaite, Ody, and Li measure the extent to which HITECH incentive payments spurred EMR adoption by independent hospitals. Adoption rates for all independent hospitals grew from 48 percent in 2008 to 77 percent by 2011. Absent HITECH incentives, the researchers estimate that the adoption rate would have instead been 67 percent in 2011. When they consider that HITECH funds were available for all hospitals and not just marginal adopters, they estimate that the cost of generating an additional adoption was $48 million. The researchers also estimate that in the absence of HITECH incentives, the 77 percent adoption rate would have been realized by 2013, just two years after it was achieved due to HITECH.

Poverty, Race, and Inequality

Saving for a (Not So) Rainy Day: A Randomized Evaluation of Savings Groups in Mali (WP-14-15)
by Lori Beaman (IPR/Economics), Northwestern University; Dean Karlan, Yale University; and Bram Thysbaert, Ghent University

High transaction and contracting costs are often thought to create credit and savings market failures in developing countries. The microfinance movement grew largely out of business process innovations and subsidies that reduced these costs. The researchers examine an alternative approach, one that infuses no external capital and introduces no change to formal contracts: an improved “technology” for managing informal, collaborative village-based savings groups. Such groups allow, in theory, for more efficient and lower-cost loans and informal savings, and, in practice, have been scaled up by international nonprofit organizations to millions of members. Individuals save together and then lend the accumulated funds back out to themselves. In a randomized evaluation in Mali, the researchers find improvements in food security, consumption smoothing, and buffer stock savings. Although they do find suggestive evidence of higher agricultural output, they do not find overall higher income or expenditure. They also do not find downstream impacts on health, education, social capital, or female decision-making power.
Social Disparities and Health

Developmental Histories of Perceived Racial/Ethnic Discrimination and Diurnal Cortisol Profiles in Adulthood: A 20-Year Prospective Study (WP-14-18)

by Emma Adam (IPR/Human Development and Social Policy), Northwestern University; Jennifer Heissel (IPR), Northwestern University; Katherine Zeiders, University of Missouri; Jennifer Richeson (IPR/ Psychology), Northwestern University; Emily Ross (IPR), Northwestern University; Katherine Ehrlich (IPR), Northwestern University; Doraine Levy, Northwestern University; Margaret Kemeny, University of California, San Francisco; Amanda Brodish, University of Michigan; Oksana Malanchuk, University of Michigan; Stephen Peck, University of Michigan; Thomas Fuller-Rowell, Auburn University; and Jacquelynne Eccles, University of California, Irvine

Perceived racial/ethnic discrimination (PRD) has been found to predict alterations in cortisol diurnal rhythms in past research, but most research has focused on current perceptions of discrimination. The researchers investigate whether PRD developmental histories matter for adult diurnal cortisol profiles. Saliva samples were provided by 120 adults (n=57 black, n=63 white), with a median age of 32.36 years (SD = .43) from the Maryland Adolescent Development in Context Study at waking, 30 minutes after waking, and at bedtime each day for seven days. Adult diurnal cortisol measures were predicted from measures of PRD obtained over a 20-year period beginning when the youth were in seventh grade (approximately age 12). Specifically, greater average PRD across the 20-year period predicted flatter diurnal cortisol slopes for both black and white participants. For blacks only, greater average PRD predicted lower waking cortisol and lower total cortisol across the day, a profile considered indicative of chronic stress. The effects of PRD on lower average cortisol across the day for blacks were driven by PRD experiences in adolescence. Young adult PRD, however, was associated with a larger cortisol awakening response for black participants only. Their results suggest that although PRD appears to impact cortisol for both blacks and whites, the effects are stronger for black participants. In addition, adolescence might serve as a sensitive period for chronic impacts of PRD on adult stress biology.

Patterns of Neighborhood Relocation in a Longitudinal HOPE VI Natural Experiment: The Genes, Environment, and Neighborhood Initiative (GENI) Study (WP-14-09)

by Brian Mustanski (Medical Social Sciences/IPR), Northwestern University; Gayle Byck, Northwestern University; John Bolland, University of Alabama, Tuscaloosa; David Henry, University of Illinois at Chicago; Greg Swann, Northwestern University; and Danielle Dick, Virginia Commonwealth University

In this working paper, the researchers test the underlying tenants of a natural experiment based in the federal housing program HOPE VI (1) that youth and their neighborhood characteristics were similar between HOPE VI and control neighborhoods prior to relocation; and (2) that HOPE VI families moved to improved neighborhoods. In testing these assumptions, they advance understanding of patterns of family relocation in HOPE VI programs. The study sample is unique as it is linked to a longitudinal study; this addresses an important limitation of many housing relocation studies, which is the lack of pre-relocation data to determine whether groups differed in any substantial way prior to moving.

Education Policy

Early Life Environment and Racial Inequality in Education and Earnings in the United States (WP-14-16)

by Kenneth Chay, Brown University; Jonathan Guryan (IPR/Human Development and Social Policy), Northwestern University; and Bhaskar Mazumder, Federal Reserve Bank of Chicago

In a 2009 study, the researchers found close tracking between an increase in test scores (from the Armed Forces Qualification Test, or AFQT, and the National Assessment of Educational Progress, or NAEP) and rates for pre- and postnatal health and hospital access for blacks born in the South from roughly 1961–73. Their 2014 study uses census data, finding a similar pattern for the black-white education and earnings gaps for the same population. The gains in earnings, however, are greater than can be explained by those in education and test scores alone. This suggests other factors also improved across the successive cohorts. The researchers’ cohort-based hypothesis reunites findings in different disciplines, indicating that gains in black earnings resulted from human capital improvements some 25–30 years earlier.
Four Faculty Join IPR  (Continued from page 1)

is Kinnan, are exploring important facets of health and innovation policy.

They will help to strengthen long-standing ties between IPR and their respective schools and departments, Figlio continued—including reinforcing research connections with the University's Chicago campus. Frakes, who is based in Chicago, will also have an IPR office in Evanston.

“Put together, these four early and mid-career scholars represent much of what is so great about Northwestern,” Figlio commented. “We are thrilled that they have joined the IPR family.”

Destin and Kinnan, already at the University, were previously IPR associates. Notowidigdo joined from the University of Chicago, and Frakes came from Cornell University.

Mesmin Destin, Psychology / Education & Social Policy
Destin, a social psychologist, is particularly interested in the ways that young people think about barriers and opportunities to future economic success in life, which can be directly linked to their identities, mindsets, and educational motivation.

Destin studies such topics in laboratory settings in Northwestern's Status, Cognition, and Motivation Lab, which he directs, as well as through field experiments and assessments of social psychological interventions amongst youth from diverse socioeconomic backgrounds.

Some of his recent research projects have detailed the success of a novel one-hour “diversity education” intervention to help first-generation students successfully transition to college, investigated how subjective social status affects high schoolers’ academic achievement, and examined how children’s savings accounts can be used to promote college-going and better outcomes.

His research has been published in Psychological Science and the Journal of Adolescence, among others. Destin joined Northwestern's faculty in 2010 after receiving his PhD in psychology from the University of Michigan.

Michael Frakes, Law
Trained as a lawyer and an economist, Frakes’ research interests fall primarily into two areas: health law and innovation policy.

His research on health largely focuses on understanding how certain legal and financial incentives might affect the decisions of physicians and other healthcare providers. Some of his past studies have investigated medical liability standards and physicians’ behavior and the relevance of medical malpractice law.

In terms of innovation policy, his research centers on the relationship between the financing of the U.S. Patent and Trademark Office (PTO) and key aspects of its decision making. A recent quasi-experiment, forthcoming in the Stanford Law Review, links a possible rise in invalid patent awards granted by the PTO to the agency’s desire to prevent applicants from utilizing costly repeat-filing tools upon rejections of their applications.

Frakes joined Northwestern as an associate professor of law, having previously taught at Cornell’s and Harvard’s law schools. He received his law degree from Harvard University and his PhD in economics from the Massachusetts Institute of Technology. He is a faculty research fellow at the National Bureau of Economic Research (NBER) and worked for Skadden, Arps, Slate, Meagher, and Flom, one of the nation’s largest law firms, from 2005–07 in New York.

Cynthia Kinnan, Economics
A development economist, Kinnan’s research focuses on how households in developing countries use financial products and informal insurance networks to invest, save, and cope with risk. Her interests extend, in particular, to what causes missing markets—when a good or service is in demand but not supplied—the interaction between risk and household investment, the role of social networks, and microfinance in emerging markets.

Her current research projects include a large-scale evaluation of health insurance in India; an evaluation of the impact of financial services on the informal networks of adopting households; and a study of the long-term effects of microcredit on business growth, household welfare, and social networks.

Kinnan is a faculty research fellow at NBER and a faculty affiliate at the Jameel Poverty Action Lab (J-PAL). She was a visiting scholar at Harvard University’s Kennedy School of Government for the 2013–14 academic year.

She received her PhD in economics from the Massachusetts Institute of Technology before joining Northwestern in 2010. Her work has been published in the American Economic Journal – Applied Economics and the American Economic Review.

Matthew Notowidigdo, Economics
Focusing on labor and health economics, Notowidigdo’s recent journal articles include investigations of how tax rebates affect consumer bankruptcy filings, as well as the relationship between public health insurance and labor supply.

He recently won the 2014 Hicks-Tinbergen Award from the European Economic Association (see pp. 2,6) with his co-authors for an article examining whether a person’s health affects his or her consumption of goods and services, an important factor for health insurance and transfer programs.

In another project, the applied microeconomist explores the weakness of the labor market following the Great Recession.
Undergraduates Acquire First-Hand Research Experience
Long-running program pairs students with IPR faculty mentors

As summer faded into autumn, Northwestern undergraduates came back to campus, many of them with tales from their summer spent in retail, nonprofits, or in finance. But 33 returned with an entirely different tale—one about designing, conducting, and analyzing a research experiment with top IPR researchers.

Summer 2014 marked the 17th year of IPR’s Summer Undergraduate Research Assistants (SURA) Program. The undergraduate research assistants were directly involved in a policy-relevant, social science research project alongside one of 28 IPR faculty mentors.

Bianca Maria Marin, a sophomore majoring in psychology, collaborated with IPR labor and education economist Kirabo Jackson and IPR social psychologist Mesmin Destin on a classroom experiment evaluating student learning and peer influence. Marin helped to organize the mock class in which the experiment took place, from recruiting incoming freshmen study subjects to drafting documents for the Institutional Review Board.

Four Faculty Join IPR
(Continued from page 20)

Notowidigdo and colleagues find that the housing boom—and the associated boom in construction work—“masked” higher unemployment in manufacturing jobs from 2000–07, especially among men without college degrees. They predict that high unemployment for noncollege workers will continue despite tax credits and other temporary programs to boost employment.

Notowidigdo joined Northwestern’s economics department as an associate professor from the University of Chicago and is an NBER research associate. He received his PhD in economics from the Massachusetts Institute of Technology in 2010 and also holds degrees in computer engineering and computer science.

“I had the chance to apply first-hand the theory learned in my research methods classes, and to experience first-hand how much work and attention to detail is required to design a valid and reliable experiment,” Marin said.

It is these hands-on research experiences that set the SURA program apart, according to its director, IPR education researcher James Rosenbaum.

“The goal of the program is to give students experience in … how to apply the kinds of things that they’re learning in their classes,” Rosenbaum said. “Applying what they know really deepens their understanding.”

Nicholas Wang, a senior majoring in anthropology, worked with Frank Penedo, a professor of medical social sciences and IPR associate, and his research team in recruiting patients for a study delivering technology-based psychosocial interventions to improve quality of life and reduce symptom burden in patients undergoing treatment for advanced prostate cancer.

According to Penedo, Wang was an indispensable member of the research team.

“There are many challenges in recruiting and engaging advanced cancer patients in behavioral trials. Nicholas’ articulate, engaging, and proactive disposition was key in our success this summer,” Penedo said in an e-mail. “Nicholas also played a critical role in assisting us with complex literature searches for an upcoming grant submission. He was a key figure in our team.”

For Wang, who is also a premedical student, the SURA program allowed him to explore the intersection of anthropology and medicine. “I see the two of them as very complementary, almost two sides of the same coin,” he said. “So the IPR program really fit well with what I was looking for in a summer research program.”

Wang plans to draw on these experiences for his anthropology capstone project and, potentially, for an honors thesis.

Marin also plans to use her SURA experiences in the future. “As I get closer and closer to the end of the project, I feel more and more committed to a research and academic career in psychology,” she said.

James Rosenbaum is professor of education and social policy and directs the IPR Summer Undergraduate RA Program. For more, see www.ipr.northwestern.edu/about/student-research/surap/.

To read more about these and other IPR fellows, find their bio pages online at www.ipr.northwestern.edu/faculty-experts.
Racial Disparities in America

(International Relations

ICantBreathe, #Ferguson, #CrimingWhileWhite, and #BlackLivesMatter were just some of the Twitter hashtags appearing after recent events related to a highly publicized string of fatal encounters between white police officers and African American males. These exemplify the resulting dialogue and conflicts—in the streets across the country, on cable news networks, and of course, social media—that appeared and highlight some of the difficulties encountered by people of different racial groups when discussing racial inequality and bias. Understanding the dynamics of these types of interracial dialogues is one focus of IPR social psychologist Jennifer Richeson’s research (see p. 9).

Richeson and her collaborators take a unique approach to studying how members of the white majority group often experience interactions with racial minority group members. In addition to fielding more traditional psychological experiments, they have also employed brain scans with functional magnetic resonance imaging (fMRI) to assess participants’ brain activity as a way to better understand the psychological processes involved when interacting across racial lines.

Some of her and her team’s recent studies point to disruptions in cognitive function, for both racial majority and minority group members, following an exchange with a person of a different race. For example, one experiment revealed that interacting with a white partner who displays relatively subtle signs of racial bias is more disruptive to blacks’ and Latinos’ cognitive function than interacting with a white partner who is more clearly biased. Their finding underscores the broad effects that racial bias can have, even when majority and minority group members have the best of intentions.

In work with IPR developmental psychobiologist Emma Adam, Richeson has also found that whites who were concerned about appearing prejudiced exhibited raised levels of stress hormones and “anxious behavior”—for example, averting their eyes—when they interacted with someone of a different race. Such results are especially distressing because racial and ethnic minorities are likely to interpret such behaviors as “a sign of whites’ racial prejudice,” the researchers wrote.

If both parties in interracial interactions experience negative outcomes, then how can one make these experiences more positive for everyone involved? Richeson’s research also investigates ways to foster positive interracial relations, from investigating “motivational mindsets” to urging participants in interracial interactions to contemplate the psychological experiences of the people in conversation with them.

“Maybe entering interracial interactions with a focus on, ‘What can I learn?’ rather than trying to avoid appearing prejudiced or being targeted, will make these encounters less stressful, less cognitively draining, and, hopefully, more productive,” Richeson said.

Racial Disparities in Education

Just eight days before his death, Michael Brown graduated from Normandy High School in St. Louis. According to the most recent Institute of Education Sciences report for 2011–12, just over 61 percent of its students graduated. That same year at Clayton High School, just seven miles away, 99 percent of students graduated. Clayton, considered one of Missouri’s top-ranked high schools by Newsweek, is 62 percent white, with 2 percent of its student body receiving free lunch; Normandy is 99 percent African American, and 72 percent of its students are eligible for free lunch.

These two high schools demonstrate the gaps in educational attainment—and subsequently, opportunity—that exist between students of different socioeconomic and racial backgrounds in America. IPR researchers have examined various education interventions designed to help narrow such gaps, from quality preschools and small class sizes to high school placement exams and barriers to college.

High-quality preschool programs have been shown to improve children’s reading and math scores in the short-term, as well as their success in the long run—for example, by increasing their lifetime earnings. These programs are especially beneficial for children from lower-income families. In addition to benefiting the youngest of students, a recent line of IPR research examines how early childhood education programs can have an impact on parents.

Take Head Start, for example. IPR developmental psychologists Terri Sabol and Lindsay Chase-Lansdale analyzed data from the Head Start Impact Study, a congressionally mandated randomized trial that followed more than 4,000 participants in Head Start programs through third grade. They observed that parents of 3-year-olds in Head Start advanced their own education, compared with parents of children not enrolled in Head Start. By the time their children reached age 6, African American parents were the most likely to see an increase in their education as a result of their children’s participation in Head Start, compared with parents in all other racial/ethnic groups. In addition, Chase-Lansdale and Sabol, along with IPR Senior Research Scientist Teresa Eckrich Sommer, have been part of a national effort to study and pilot two-generation interventions, which offer education and job training, as well as financial and career guidance for parents and early high-quality education for their children up to age 6.

Dissecting data from the Project Star class-size experiment in Tennessee, IPR economist Diane Whitmore Schanzenbach finds that smaller, better-resourced elementary school classes of around 15 students benefit disadvantaged black students twice as much as white students. A later study suggests that small class size continues to have an effect well into adulthood with Project Star alumni earning more, saving more, and more likely to be employed. Additionally, the black students randomly assigned to smaller classes in the Tennessee experiment were
twice as likely to go college, with a boost of 11 percentage points among black students who were less likely to enroll in the first place.

Beyond early education interventions, IPR faculty are also looking at programs to benefit underprivileged high school students. IPR economist Jonathan Guryan is currently investigating an intervention that could help disadvantaged high schoolers, who are disproportionately from low-income and minority groups, stay on track to graduate. He and his colleagues are working with a group of mostly African American teens in Chicago Public Schools (CPS), fielding a project combining principles of cognitive behavioral therapy and individualized academic tutoring. The program’s benefits were equivalent to closing nearly two-thirds of the average gap in math test scores between white and black students—the equivalent of what the average American high school student learns in math over three years.

IPR labor and education economist Kirabo Jackson has several lines of research investigating high school-level factors at play, including single-sex and selective schools, teacher quality, and pay-for-performance incentives. He analyzed a Texas-based program that provides cash incentives to students and teachers when students pass Advanced Placement (AP) exams. The program focuses specifically on schools that serve low-SES and minority populations. After schools implemented it, Jackson found that more students enrolled in AP courses and took AP exams—particularly black and Hispanic students. Students also achieved higher SAT and ACT scores, and more enrolled in college. The program also boosted teacher effort, and, as a consequence of teacher effort, instruction quality.

Once minority students enter college, there are still more barriers to their success. In particular, first-generation college students receive lower grades and are more likely to drop out than those who have at least one parent with a 4-year college degree (continuing-generation students). This gap exists even when first-generation students are otherwise academically equal to their continuing-generation peers; it is the college context itself that impairs their performance. But remedying this issue can be as simple as participating in a one-hour program, according to IPR social psychologist Mesmin Destin.

In Destin’s study, first- and continuing-generation students attended a program welcoming new students to a university. The program included a discussion where a diverse panel of college seniors relayed how their backgrounds affected their college experiences. The first-generation students who attended the panel not only reduced the achievement gap between themselves and students with a college-educated parent by 63 percent, but they also experienced less stress and anxiety, adjusted better to college life, and were more academically and socially engaged than those in the control group.

As the nation’s population grows more diverse, many institutions of higher learning will continue to remain interested in diversifying their student body by considering race in the admissions process. Yet several recent challenges to race-conscious affirmative action programs, such as the Supreme Court’s decision in April to uphold Michigan’s ban on affirmative action in college and university admissions, serve to highlight how controversial they remain. Despite the intensity of the debate, surprisingly little is known about how such policies came to be. IPR sociologist Anthony Chen and his collaborators have been exploring a wide range of archival manuscripts to understand why American colleges and universities adopted affirmative action in the first place. Their evidence challenges the still-popular idea that the initial advent of affirmative action

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Racial Disparities in Health

Beyond racial disparities in education and the difficulties in race relations, a distinguishing direction for IPR research deals with health disparities across race and socioeconomic status that can undermine a person's health and ultimately, their potential throughout their life. As an African American male, for example, Michael Brown was statistically 30 percent more likely to die from heart disease, nearly twice as likely to die from diabetes, and five times as likely to die from gun violence than a white male.

Studies by IPR social demographer Quincy Thomas Stewart highlight these racial disparities in mortality across the life course. In one project, he is examining significant racial disparities in hypertension, one of the leading causes of death for blacks. Using data from two linked mortality databases, he and his colleague analyze the relationship between race, hypertension, and hypertension-related death. Preliminary results reveal that blacks are significantly more likely to die of hypertension than whites, and the increased mortality rate is only partially related to pre-existing high blood pressure, high cholesterol levels, and diabetes, among others. The results suggest statistical discrimination in cause-of-death diagnoses, meaning that similar blacks and whites receive different death diagnoses (see p. 13).

Starting at the other end of the life cycle, IPR biological anthropologist Christopher Kuzawa has examined how self-perceived discrimination, racism, chronic stress, and other social influences affect racial health disparities in cardiovascular disease. He notes that all of these factors, when experienced by a woman during pregnancy, can have adverse effects on the health of her offspring that persist into late life. He and fellow researchers, including Emma Adam and biological anthropologist Thomas McDade, are tracing the biophysical consequences of discrimination and racism from birth into adulthood, and even across generations. Secondary to eliminating racism altogether, Kuzawa recommends increasing public spending to improve pregnant women’s access to prenatal care and nutrition, and to ensure they suffer less-stressful pregnancies.

In another study, a team of researchers including McDade and Adam examines links between breast-feeding, birth weight, and chronic inflammation—an indicator of increased risk for heart attack and diabetes—for nearly 7,000 24- to 32-year-olds. Using National Longitudinal Study of Adolescent Health (Add Health) data, the researchers uncover dramatic disparities. More educated mothers, whites, and Hispanics were more likely to breast-feed. Lower birth weights and shorter periods of breast-feeding predicted higher inflammation levels in young adults, and thus higher disease risk. The research indicates that efforts to promote breast-feeding and improve birth outcomes might have clinically relevant effects on reducing levels of chronic inflammation and lowering risk for cardiovascular and metabolic diseases in adulthood.

Examining experiences beyond infancy, research by Adam shows that a person’s perceptions of being exposed to racial and ethnic discrimination during adolescence might have ongoing effects on stress biology and health into adulthood. Adam and her colleagues are using a detailed bank of information collected over 20 years from adolescence to early adulthood, adding recently gathered stress and health biomarker data, to better understand the effects of such histories of exposure. The study also includes a time-diary component to capture how perceptions of daily discrimination relate to stress and sleep quality and an experimental protocol to examine how the participants physically react to race-related stress. Initial results reveal that being African American and having a cumulative history of feeling discriminated against are associated with flatter and lower cortisol diurnal rhythms, a sign of chronic stress, in early adulthood. For African American participants only, experiences of discrimination in adolescence were strongly related to altered cortisol patterns in adulthood.

Despite the odds stacked against them, why do some members of disadvantaged groups still manage to succeed? IPR health psychologists Edith Chen and Greg Miller evaluated resilient African American adolescents in the rural South to see how their “efforts to beat the odds” affected the amount of physiological wear and tear on their bodies. They discovered that, by age 19, these adolescents—who did well in school, had good mental health, and stayed out of trouble with the law—also exhibited more serious physical health risks, such as higher rates of blood pressure and obesity. In other words, their positive attitude and accomplishments might mask these “hidden indicators” of bad health, rendering their resilience “skin deep.” In another project, Chen and Miller studied an intervention program for African American families from low-SES backgrounds in rural Georgia. By teaching parents how to mentor their 11- and 12-year-old children, the program seems to help moderate some of the costs of resilience 8–9 years later.

Racial Disparities and Neighborhoods

Ferguson is situated within the St. Louis metropolitan area, one of the most segregated regions in the country. IPR sociologist Lincoln Quillian has studied many aspects of how segregation can shape educational and life outcomes.

In a recent article, Quillian found that more segregated metropolitan areas had lower high school graduation rates for students from disadvantaged backgrounds, yet rates for students from advantaged backgrounds remained the same. This suggests that for education, “Segregation increases the disadvantage

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Kaplan, who is chief science officer at the Agency for Healthcare Research and Quality in the U.S. Department of Health and Human Services gave a February 9 IPR Distinguished Public Policy Lecture on patient-centered outcomes in biomedical research. Heckman, Henry Schultz Distinguished Service Professor in Economics at the University of Chicago, will give another Distinguished Public Policy Lecture on April 27. Western will give the joint IPR/Sociology Inequality and Difference Lecture on May 7. He is Daniel and Florence Guggenheim Professor of Criminal Justice Policy at Harvard University.

**Post-Midterm Analysis**

The week following the November 4 election, IPR political scientists Daniel Galvin and Laurel Harbridge with IPR mass communication scholar Rachel Davis Mersey dissected the results and the wave of Republican victories.

Galvin observed that Democratic candidates sidestepped issues such as the growing income gap, financial insecurity, and workers’ rights in their platforms—even in races where these issues were at the forefront, such as Wisconsin’s gubernatorial race between Democrat Mary Burke and Republican incumbent Scott Walker. This evasiveness, he said, likely contributed to Democrats’ defeat. At the same time, Harbridge noted, the sitting president’s party has gained seats in only two midterm elections since 1950, and though Democrats might have lost this year’s midterms, many of their causes—such as minimum wage raises and legalizing recreational marijuana—passed.

Mersey reviewed millennials’ troubled relationship with obtaining quality news. They not only get their information on politics from low-quality news outlets, Mersey said, but these same outlets also tend to present only one viewpoint for multifaceted political issues.

The panel ended with a look toward the 2016 general elections, the results of which are “wide open, depending on what happens in the economy, and what happens in the next two years in Congress between the Democrats—and the Republicans as well,” Harbridge said.

**Scholars Strategy Network Panel**

At an October 22 panel co-sponsored by IPR and the Scholars Strategy Network, Larry Jacobs of the University of Minnesota, Colleen Grogan of the University of Chicago, and Illinois State Rep. Robyn Gabel (D–Evanston), examined several key issues of the Affordable Care Act (ACA)’s future.

Conversation topics included the role of election demographics (youth, minorities, and the less affluent tend to be under-represented in midterm elections), how the size of the Republican Party will influence the law’s fate, whether public opinion on the law will shift over time, and the effects of ACA media coverage on public opinion.

Ultimately, the panelists agreed, time will play a big role in shaping how the public views the law and what happens to it. By 2016, estimates show that 34–37 million people will have enrolled in healthcare plans under the ACA. At that point, Jacobs said, the “abstract thing called Obamacare will become something very concrete.”

**Mind and Society Symposium**

At Northwestern’s Mind and Society Symposium on October 16, moderated by IPR psychologist Sandra Waxman, the panelists presented social, cognitive, and neural factors important to developing wellbeing. University of Wisconsin–Madison neuroscientist Richard Davidson opened the panel by discussing his experimentation on cultivating compassion, finding that “training”—for instance, picturing loved ones and repeating a compassionate message—produces measurable changes in the brain and in behavior. His conclusion? “Well-being is actually a skill,” requiring practice.

James Heckman focused on his research on the Perry Preschool Project, a 1960s preschool program for African American children from low socioeconomic status households in Michigan. Though the investment in each child was significant, around $10,000 per year, his study indicates it was worth it: The Perry students earned more as adults than their peers, committed fewer crimes, and teenage girls had lower rates of pregnancy.

IPR health psychologist Edith Chen discussed her research on resilience, or why certain children who grow up in disadvantaged circumstances still manage to thrive. One study revealed the importance of parental nurturing in promoting resilience in children from low-SES households; the second showed that having a role model also increases resilience in these children.

IPR developmental psychologist Lindsay Chase-Lansdale spoke about her work on two-generation programs, which provide job training and education for young, low-income parents, combined with high-quality, early childhood education programs for their children.

*For more information about past and upcoming IPR events, see www.ipr.northwestern.edu/events.*
Racial Disparities in America

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of disadvantaged groups without increasing the advantage of advantaged groups.” While school reform is important to reduce gaps, Quillian’s research concludes that neighborhood conditions must also be addressed to affect more powerful changes.

Additionally, increased segregation is linked to higher rates of incarceration as several studies by political scientist and IPR associate Traci Burch have shown. In a recent article analyzing data from 5,000 North Carolina neighborhoods, she traced how high numbers of jailed individuals in a single neighborhood can adversely affect many neighborhood aspects—from increasing crime and poverty to reducing voter participation and civic engagement. Overall, a neighborhood in a highly segregated county would have twice the number of residents locked up as compared with those living in a county with far less segregation.

While many studies of segregation focus on low-SES neighborhoods, sociologist and African American studies researcher and IPR associate Mary Pattillo’s research centers on middle-class African American neighborhoods. Though middle-class blacks have more advantages than poor blacks, they nevertheless live in areas with more crime, poverty, unemployment, fewer college graduates, more vacant homes, and more single-parent families than do middle-class whites—and even poor whites, Pattillo has found. Her results point to discrimination in the housing market as a factor in blacks’ decision to remain in less integrated neighborhoods, despite a willingness to move. Pointing to a link between middle-class black neighborhoods and “the preferences and behaviors of whites,” she argues that more progress must be made to change whites’ preferences and behaviors as a way to increase mobility and integration.

IPR political scientist Wesley G. Skogan has a significant body of work examining how police and communities can collaborate to improve neighborhoods, including a 2012 study of 279 Chicago police beats showing how community beat meetings might have played a role in decreasing neighborhood crime rates in mostly poor, African American neighborhoods in the city. Skogan also studies how people react to a police presence in their neighborhoods. In an earlier study from 2008, he analyzed reports of police misconduct in Washington, D.C., a city that is 50 percent black according to the 2010 census. He and his colleagues found that young black men were more likely than others to report that they had been stopped by the police. Forty-three percent of 18- to 29-year-old black males had been stopped while driving during the previous year, compared with 18 percent of young white males. Blacks were about twice as likely as whites to believe that the city’s police stop too many people without good reason, that they are too tough on those they stop, and that they are verbally or physically abusive toward citizens. Class also shaped views of police misconduct, with less-educated respondents more likely to believe it was a problem in their neighborhoods. These results, Skogan writes, highlight a “continued division among blacks and whites over policing.”

For more IPR faculty research on these and other related topics, please visit www.ipr.northwestern.edu/research-areas.
IPR Research Related to Themes of President Obama’s Speech

President Obama: “If we make high-quality preschool available to every child … we’ll give them the start that they need to succeed in school, and earn higher wages, and form more stable families of their own.”

- IPR developmental psychologist Lindsay Chase-Lansdale examines two-generation programs for parents and children.
- Developmental psychologist and IPR associate Terri Sabol shows how Head Start also benefits low-income parents.
- IPR economist Diane Whitmore Schanzenbach analyzes the impact of high-quality preschool programs.

President Obama: “If we redesign our high schools, we’ll graduate more kids with the real-world skills that lead directly to a good job in the new economy.”

- IPR economist Jonathan Guryan is studying a new targeted tutoring and therapy intervention to keep low-performing students in high school.
- IPR labor and education economist Kirabo Jackson investigates how paying high school students for scoring well on Advanced Placement exams might lead more to college.
- IPR education researcher James Rosenbaum studies the link between high school and work and its impact on employers, teachers, and students.

President Obama: “We’ve invested in more than 700 community colleges—which are so often gateways to the middle class—and we’re connecting them with employers to train high school graduates for good jobs in fast-growing fields.”

- IPR social psychologist Mesmin Destin recently evaluated a one-hour intervention that helps first-generation students successfully transition to college.
- IPR Director and education economist David Figlio examines how students learn in higher education settings.
- IPR education researcher James Rosenbaum looks at employers’ hiring processes for community college graduates.
- Morton Schapiro, Northwestern University president, professor, and IPR economist, specializes in college financing and affordability.

President Obama: “Between a growing economy, some prudent spending cuts, healthcare reform, and asking the wealthiest Americans to pay a little bit more on their taxes, over the past five years we’ve cut our deficits by more than half.”

- IPR economist Matthew Notowidigdo analyzes the effects of public health insurance systems on labor supply.
- Healthcare economist and IPR associate Leemore Dafny examines competitive interactions between payers and providers of healthcare services.
- Healthcare economist and IPR associate David Dranove studies the deployment and use of electronic medical records in U.S. healthcare.
- IPR sociologist Monica Prasad studies how the United States came to have a progressive tax system and its effects on American social welfare policy.

President Obama: “That’s why we launched a Race to the Top in our schools, trained thousands of math and science teachers, supported states that raised standards for learning.”

- IPR social psychologist Thomas D. Cook refines education methodology and evaluates education reforms.
- In addition to developing better methods for education researchers, IPR education researcher and statistician Larry Hedges leads advanced training in experiments (see pp. I0, I4).
- IPR labor and education economist Kirabo Jackson researches teacher effects, teacher quality, and measures of educational progress.

President Obama: “If we keep investing in clean energy technology, we won’t just put people to work … we’ll reduce our carbon emissions and prevent the worst costs of climate change down the road.”

- IPR political scientist James Druckman and IPR social policy professor Fay Lomax Cook are examining Americans’ changing knowledge and attitudes about alternative energy sources and how their lifestyle choices affect energy production and consumption.

President Obama: “When I took office, businesses were laying off 800,000 Americans a month … The unemployment rate has come down from a high of 10 percent in 2009, to 6.1 percent today.”

- IPR social demographer Christine Percheski investigates whether joblessness and the poor economic conditions of the Great Recession lowered fertility rates.
- IPR economist Diane Whitmore Schanzenbach examines food insecurity in the United States, which spiked during the recession.
- Economist and IPR associate Brian Melzer researches the impact of unemployment benefits on the housing market following its collapse.
- IPR sociologist Leslie McCall studied views of income inequality before, during, and after the Great Recession. She and IPR social psychologist Jennifer Richeson are investigating how the public views opportunities for upward mobility during a period of rising, and high levels of, inequality.

President Obama: “But if gridlock prevails, if cooperation and compromise are no longer valued, but vilified…”

- IPR political scientist Laurel Harbridge studies many aspects of legislative cooperation or lack thereof, including partisan conflict, legislative gridlock, public approval, and legislative compromise (see p. 12).

President Obama: “I am not on the ballot this fall … [b]ut make no mistake: These policies are on the ballot—every single one of them.”

- IPR political scientist Daniel Galvin is engaged in several ongoing research projects that focuses on presidential strategies and how they affect the president’s party and policymaking.
In a major policy speech at Northwestern University this fall, President Barack Obama hit on themes of progress over the past six years that he said the country can and should be proud of—touching on many topics that are also the subject of IPR faculty research, from education and healthcare to innovation and opportunity.

University President, Professor, and IPR Fellow Morton Schapiro welcomed President Obama, saying he was “exceptionally proud to host our nation’s president.”

Said Obama, “It’s great to be back at Northwestern,” recalling his 2006 commencement speech here when he was a U.S. senator.

Before a crowd of nearly 1,000 Northwestern students and faculty that included some of the president’s guests—Illinois

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