In this edition of “Highlights,” HCEO’s biannual publication, we provide an overview of our recent research initiatives while looking ahead to a full summer of international programming. “Highlights,” which is also available for download on our website, helps us disseminate the important research of our more than 500 members to a wider audience.

Since our last issue, HCEO has held workshops on social interactions and crime, the gut microbiome, understanding human capital formation, and measuring and assessing skills.

Later this year we look forward to hosting conferences organized by our Markets, Family Inequality, and MIP networks. This summer we are also co-sponsoring two training seminars in China: one for students and one for early career faculty. In addition, we are hosting sessions of our Summer School on Socioeconomic Inequality in Bonn, which is a collaboration with briq, and in Chicago. In the fall, we will welcome our two 2018 dissertation prize winners to The University of Chicago to present their work.

We thank you for your support of HCEO’s mission to connect cross-disciplinary experts in the study of inequality. You can stay up to date with our work between issues by checking our website or by following us on social media.
Inequality, both in the US and abroad, has soared over the past few generations. According to a 2014 report from the Organization for Economic Cooperation and Development, the gap between rich and poor is at its highest level in 30 years. This disparity has drawn increased attention from policymakers and academics, who have generated a vast array of literature examining both inequality and intergenerational mobility, which measures changes in socioeconomic status within the same family across generations.

Until now most of this research has focused on income, education, and occupation. A recent HCEO working paper by MIP network member Bhashkar Mazumder and his co-authors Timothy Halliday and Ashley Wong takes a different approach by focusing on health, which is increasingly being recognized as an important component of socioeconomic status.

“Economists have tended to think of human capital largely in terms of education and skills,” Mazumder says. “Now, increasingly, they are also thinking of health as a major component of human capital. So I thought it would be important to see to what extent is there intergenerational mobility in health, and is that similar to the rates of intergenerational mobility in income and other measures?”

The authors note that studying intergenerational health mobility is challenging, as it requires data on health measures for two generations of adults. They overcame this challenge by using data from the Panel Study of Income Dynamics (PSID), the world’s longest running longitudinal dataset. In 1984, the PSID began collecting information on self-reported health status. This is a health measure, used widely in epidemiology research, which has been shown to be highly predictive of mortality. Using this information, the authors “construct an intergenerational sample of parents and their adult children.”

“Yet we’re essentially able to take families, where we know income in both generations, health in both generations, and line up mobility according to both measures as best we can,” Mazumder explains.

The authors then employ this data to convert the self-reported health status into a measure similar to the “quality adjusted life year,” which is an economic evaluation commonly used to report the value of medical interventions. This measure is used as a proxy for lifetime health status. Overall, Mazumder and his co-authors find that there is substantially greater health mobility than income mobility in the US. In addition, they find that families that experience mobility in health are not necessarily the same families that experience mobility in income.
“This suggests that they are in some ways a different dimension of socio-economic success,” Mazumder says. “It could be that while there’s a lot of factors in American society that, for whatever reason, makes it difficult to escape the conditions you were born in with respect to how much money you’ll make, it seems quite a bit different when it comes to your health as an adult.”

The authors were interested in exploring what might be driving these differences in health and income mobility. They hypothesized that social institutions and policies may be more successful at breaking the intergenerational link in health than they are in income. For example, modern public health infrastructure such as access to clean air and water, and social safety net programs like SNAP and Medicaid, might have played a part in reducing the transmission of health status across generations. “In contrast, it may well be that opportunities for labor market success, which are rooted in educational opportunities earlier in life, may be much more unequal and hence, lead to greater intergenerational income persistence,” the authors write. “It may also be the case that in the past, the rates of income persistence and health persistence were more similar, but in recent decades, as the labor market returns to schooling has risen and as income inequality has increased, intergenerational income persistence has also increased.”

One mechanism in particular that the researchers studied was whether access to health insurance might play a role in reducing the intergenerational transmission of health status. To do this, they used PSID data on health insurance coverage for household members, controlling for family income and parent education. They find that “there is greater persistence in health status among families where parents did not have health insurance.”

“This provides suggestive evidence that health insurance might be part of what breaks the link across generations in health,” Mazumder says.

The study also examines variation in health mobility by region, race, and parent education level. The findings for these subgroups largely follow trends in income mobility, although they are less pronounced. The authors note that people who grew up in the South experience both lower upward mobility and higher downward mobility. They also find that black people “experience significantly less upward mobility and significantly higher downward mobility than whites,” although they point out that the “racial mobility gap in health is smaller than the analogous racial mobility gaps in income.” The paper also finds that children of less educated parents are “similarly disadvantaged when it comes to health as compared to children of well-educated parents.”

The authors also explore how early life circumstances affect health mobility. They conclude that close to 40 percent of intergenerational health persistence can be explained by early childhood circumstances. “Interestingly, the socioeconomic background of the parents appears to matter more than the child’s health status in explaining the transmission of health status across generations,” the paper notes.

Given the persistence of social immobility in the US, understanding the mechanisms behind it are crucial. With this paper, Mazumder and his co-authors help to fill the void in our understanding by providing the first estimates of intergenerational health mobility in the US. Health is not only an important indicator of well-being, as the authors note, it also plays a vital role in success over the life course.
It is almost self-evident that social interactions can determine economic behavior and outcomes. Yet, information on social ties does not exist in most publicly available and widely used datasets. We present methods to recover information on the entire structure of social networks from observational panel data that contains no information on social ties between individuals. In the context of a canonical social interactions model, we provide sufficient conditions under which the social interactions matrix, endogenous and exogenous social effect parameters are all globally identified. We describe how high dimensional estimation techniques can be used to estimate the model based on the Adaptive Elastic Net GMM method. We showcase our method in Monte Carlo simulations using two stylized and two real world network structures. Finally, we employ our method to study tax competition across US states. We find the identified network structure of tax competition differs markedly from the common assumption of tax competition between geographically neighboring states. We analyze the identified social interactions matrix to provide novel insights into the long-standing debate on the relative roles of factor mobility and yardstick competition in driving tax setting behavior across states. Most broadly, our method shows how the analysis of social interactions can be usefully extended to economic realms where no network data exists.

Studies of intergenerational mobility have largely ignored health despite the central importance of health to welfare. We present the first estimates of intergenerational health mobility in the US by using repeated measures of self-reported health status (SRH) during adulthood from the PSID. Our main finding is that there is substantially greater health mobility than income mobility in the US. A possible explanation is that social institutions and policies are more effective at disrupting intergenerational health transmission than income transmission. We further show that health and income each capture a distinct dimension of social mobility. We also characterize heterogeneity in health mobility by child gender, parent gender, race, education, geography and health insurance coverage in childhood. We find some important differences in the patterns of health mobility compared with income mobility and also find some evidence that there has been a notable decline in health mobility for more recent cohorts. We use a rich set of background characteristics to highlight potential mechanisms leading to intergenerational health persistence.
2018-021 Maternal Depression, Women’s Empowerment, and Parental Investment: Evidence from a Randomized Control Trial
Victoria Baranov, Sonia Bhalotra, Pietro Biroli, and Joanna Maselko

We evaluate the medium-term impacts of treating maternal depression on women’s financial empowerment and parenting decisions. We leverage experimental variation induced by a cluster-randomized control trial that provided psychotherapy to perinatally depressed mothers in rural Pakistan. It was one of the largest psychotherapy interventions in the world and highly successful at reducing depression. We locate mothers seven years after the end of the intervention to evaluate its longer run effects. We find that the intervention improved women’s financial empowerment, increasing their control over household spending. Additionally, the intervention increased both time- and monetary-intensive parental investments.

2018-002 The Welfare Effects of Encouraging Rural-Urban Migration
David Lagakos, Mushfiq Mobarak, and Michael Waugh

This paper studies the welfare effects of encouraging rural–urban migration in the developing world. To do so, we build a dynamic incomplete-markets model of migration in which heterogeneous agents face seasonal income fluctuations, stochastic income shocks, and disutility of migration that depends on past migration experience. We calibrate the model to replicate a field experiment that subsidized migration in rural Bangladesh, leading to significant increases in both migration rates and consumption for induced migrants. The model’s welfare predictions for migration subsidies are driven by two main features of the model and data: first, induced migrants tend to be negatively selected on income and assets; second, the model’s non-monetary disutility of migration is substantial, which we validate using newly collected survey data from this same experimental sample. The average welfare gains are similar in magnitude to those obtained from an unconditional cash transfer, and greater than from policies that discourage migration, though migration subsidies lead to larger gains for the poorest households, which have the greatest propensity to migrate.

2018-008 Parental Beliefs about Returns to Child Health Investments
Pietro Biroli, Teodora Boneva, Akash Raja, and Christopher Rauh

Childhood obesity has adverse health and productivity consequences and poses negative externalities to health services. Its increase in recent decades can be traced back to unhealthy habits acquired in the household. We investigate whether parental beliefs play a role by eliciting beliefs about the returns to a recommended–calorie diet and regular exercise using hypothetical investment scenarios. We show that perceived returns are predictive of health investments and outcomes, and that less educated parents perceive the returns to health investments to be lower, thus contributing to the socioeconomic inequality in health outcomes and the intergenerational transmission of obesity.
Bertil Tungodden is a Professor of Economics at the Norwegian School of Economics (NHH). He is also Centre Director of the Centre of Excellence FAIR (Centre for Experimental Research on Fairness, Inequality and Rationality), Co-Director of the research group The Choice Lab, and an Associated Senior Researcher at Chr. Michelsen Institute (CMI). He was Chairman of the Norwegian Scientific Council for Economics from 2007 to 2009. His research interests are experimental and behavioral economics, development economics, distributive justice, and social choice theory. He was recently awarded an ERC Advanced Grant for his project “Fairness and the moral mind.” He was a faculty member at HCEO’s Summer School on Socioeconomic Inequality Bonn in 2016.

Please describe your area of study and how it relates to current policy discussions surrounding inequality.

Inequality is one of the most pressing issues in the modern world and concerns for inequality figure prominently in almost all spheres of society. In my research, I address three fundamental questions in the inequality debate: Which inequalities do we consider unfair? What are the drivers of unfair inequalities? What shapes our fairness views? These three questions
are essential for understanding how to approach inequality in a modern democratic society; we need to know which inequalities people consider to be unfair, we need to know the determinants of unfair inequalities, and we need to know how the social institutions shape people’s conception of unfair inequality. I conduct experimental research on each of these dimensions where I combine different methodological approaches and large administrative data sets with different types of experiments, including lab experiments, incentivized experiments on nationally representative samples, and randomized controlled trials. My research also draws actively on the other social sciences and philosophy.

**What areas in the study of inequality are most in need of new research?**

I believe that we need much more research on how the idea of personal responsibility shapes the inequality debate and our policies targeting inequality. The principle that people should be held personally responsible for the consequences of their choices is a fundamental moral ideal in Western societies, but the interpretation and application of this principle have been a heated political issue for centuries. In fact, it has been argued in recent years that American politics has become "a personal responsibility" crusade; for example, the significant drop in government transfers to single parents and families with nonemployed members appears to be rooted in the presumption that these groups should be held personally responsible for their situation (see Robert A. Moffitt’s Presidential Address to the Population Association of America in 2015, "The Deserving Poor, the Family, and the U.S. Welfare System"). The principle of personal responsibility has also become a prominent notion in health policy debates in many industrialized countries, where lifestyle-related diseases, such as high cholesterol and obesity, contribute importantly to the burden of disease and costs of health-care. Indeed, it has been argued that much of the political discourse on life-style related diseases rests on how to understand personal responsibility.

**What advice do you have for emerging scholars in your field?**

I hope that many young scholars will join the very active research agenda that aims to better understand the moral mind and how it interacts with selfish considerations in shaping our views on inequality. In this work, I believe it is extremely fruitful to be inspired by research that is going in all the social sciences and philosophy and combine them with the stringent methods of economics. A very important topic for the coming years will be to better understand how social institutions shape our preferences and beliefs, which is of great importance for any policy debate on how to tackle inequality. Finally, in terms of methodology, I believe that it becomes even more important to have large samples, clean designs, and a pre-analysis plan for your experimental work.

For more 3 Questions, visit: [hceconomics.uchicago.edu/research](http://hceconomics.uchicago.edu/research)
The third iteration of the Measuring and Assessing Skills conference explored how to leverage technology in the classroom to better measure children’s skills. It brought together a group of leading scholars developing the next generation of measurement schemes for cognition, personality, and behavior. Any effective system of personalized education needs to capture the broad array of skills that have been found to be predictive of achievement in school and in life. Traditional paper and pencil tests are quite cumbersome and not tailored to capturing specific skills. Self-reports of personality and behavior are unreliable. Teacher evaluations are subjective (although predictively more reliable), time-consuming, and often incomparable across teachers. Administrative data have predictive power, but remain to be aligned with traditional measurements (research doing so is underway).

This conference examined a body of literature that spans multiple disciplines and measurement mechanisms. Participants discussed the frontiers of each approach, consilience across measurement schemes, and feasibility of implementation. The inclusion of industry researchers and stakeholders brought a new dimension to this iteration of the conference, allowing for concrete examples of implementation.

A group of three researchers from the Education Testing Service (ETS) opened the conference with related presentations outlining their work integrating technology into the measurement of skills. Robert Mislevy began with an overview of how technology is forcing a re-conception of assessments in psychology. He highlighted some pitfalls of measuring skills without an underlying theory of the relevance of that skill.

Michelle LaMar then discussed her experience implementing the principles that Mislevy introduced. She talked about the use of machine learning techniques to analyze data and predict student behavior and skills. The underlying question behind her computational approaches was about what processes in the brain are leading to the observed behaviors. Her work allows her to create student profiles by learning from collected data, while using established theory to make sense of patterns of behavior.

Patrick Kyllonen closed out the series of ETS presentations with a look at the importance of collaborative problem-solving in understanding the full measure of child skills. He discussed his experiments with computer-mediated triologues and tetralogues where people can work together to achieve an objective or complete a task. His findings showed that effective collaboration required elements of information sharing and negotiation, with agreeableness being strongly correlated with success on each task.

Oliver Wilder covered methods of measuring behavior and skills from an affective computing perspective. He gave an overview of wearable devices that measure physiological signals, track location, and capture audiovisual output. He examined common issues in the use of these technologies and presented results looking at the physiological synchrony between two parties. His work provided promising results for measuring interactions between individuals and sparked a conversation on the use of physiological measurements as a supplement to observed behavior.

Some presenters discussed how social media platforms measure skills, traits, and behaviors. Sandra Matz presented research from a study of Facebook users who participated in a survey measuring the Big 5. Survey results were
linked to their Facebook activity, allowing researchers to correlate personality traits with social media activity. The indicators uncovered in this study can help researchers disentangle how to predict personality traits given relatively noisy information on social media activity.

Michelle Zhou showed examples of the possibilities of another platform with a machine learning backend: one that can help employers screen, interview, and test the skills of job seekers. The ability of the platform to extract key characteristics from online tasks and typed responses can help reduce bias in hiring and ensure that the candidate with the most relevant skills is hired. Her work emphasized the importance of creating a human–machine symbiosis that can allow computers to better understand humans and provide individualized guidance based on collected data.

The second day opened with Jeremy Roberts, Charles Parks, and Gregory Chung from PBS Kids and UCLA’s CRESST, who showed the power of the PBS KIDS platform to not only collect measures of children’s skills, but to develop a backend allowing for children to iteratively learn and get tested on more difficult tasks. Their analytics platform and access to rich data on preschool children led to a discussion on the viability and use of game-based elicitions and measurements.

Brent Roberts gave a broad presentation of the many frontiers of research skill measurement. His talk combined findings in psychology and economics with those from neuroscience and genetics. This nascent combination underscores the importance of working to better understand the natural meaning of skills and determine what constructs tests, games, and bioinformatics measure.

Armin Falk pivoted the conference back to current measurement schemes in social science research. He discussed the issues that plague existing measures of skills, which often require people to self-report their skills. He presented a model of how people respond to these traditional skill inventories, identifying the costly effort it takes to “remember” the true value of skills and the incentive to misrepresent oneself to better meet social norms. The testable predictions of his model include the fact that people with higher ability will put in more effort and more accurately self-categorize themselves. Further, his model predicts that stronger social norms may introduce bias, but this effect may be mitigated by financial incentives to support accurate reporting.

Fabian Kosse’s work accounts for many of the complications presented in Falk’s research, and his presentation outlined the experimental elicitation methods he uses to overcome issues with self-reported evaluations. He briefly covered experiments to identify the time, risk, and social preferences of children and adolescents. These experiments provide children with theory-guided trade-offs and create more interpretable metrics by removing the chance of bias due to social norms and other issues. Though Kosse’s work is less technology-driven than other presenters, his work can be easily adapted to software platforms or used as a supplement to more cutting-edge technological measurement schemes.

Finally, the co-sponsors of the conference, Otus, presented their education technology platform and the promise it holds for integrating varying types of measurement schemes. Their platform allows teachers to monitor classrooms, administer tests, or interact with students. Otus emphasized the importance of capturing the classroom experience in real-world settings and ended the conference by prompting attendees to think of ways to collaborate on further research and implementation efforts.
Faculty Collaborative Seminar 2018
June 25–29, 2018
Guangzhou, China

HCEO and the Institute for Economic and Social Research (IESR) at Jinan University will host a week-long Faculty Training Seminar at Jinan University in Guangzhou, China. The seminar is designed to foster international collaboration between early career faculty and post-doctoral scholars working in economics.

Student Training Summer Seminar at Peking University
July 7–9, 2018
Beijing, China

HCEO will be hosting its first Student Training Summer Seminar in collaboration with the School of Economics at Peking University and the University of Chicago Beijing Center. The three-day intensive program is designed to equip students with the tools to formulate research questions and proceed to investigate those questions empirically and theoretically using data. Students will hear lectures from leading faculty, participate in hands-on data analysis projects, and present and receive feedback on their findings.

Summer School on Socioeconomic Inequality Bonn 2018
July 9–13, 2018
Bonn, Germany

The 2018 Human Capital and Economic Opportunity Global Working Group and briq Summer School on Socioeconomic Inequality will provide a state-of-the-art overview on the study of inequality. This program is open to masters students and practitioners from around the world. Through rigorous lectures students will be trained on various tools needed to study the issue of inequality.

Summer School on Socioeconomic Inequality 2018
July 30–August 3, 2018
Chicago, IL

This summer school will provide a state-of-the-art overview on the study of inequality. The program is open to masters students and practitioners from around the world. Through rigorous lectures, students will be trained on various tools needed to study the issue of inequality.

Market Design For Development
October 28–29, 2018
Chicago, IL

The Market Design For Development Conference will build upon the 2016 Market Design Conference.

Social Interactions and Education
November 9–10, 2018
Chicago, IL

This workshop will bring together social scientists to consider different aspects of education, with a focus on melding individual and social explanations of individual and group outcomes. Social influences on education include mechanisms ranging from role model effects to peer pressure. The workshop will bring together different methodological perspectives.

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85 Events in 12 Countries
HCEO recently met with MIP network member Stacy Lindau to talk about her work on health equity and about WomanLab, her recently-launched communications effort to make and amplify scientific discoveries about human sexuality.

"My passion is engineering solutions to injustice," Lindau says. "I believe that we can solve injustices by working together with people who know injustice best. So most of my work involves collaboration, either with people from the surrounding communities that we serve, or even my own patients."

In addition to her research, Lindau is also a practicing gynecologist. She says she was drawn to focus on obstetrics and gynecology because it allowed her to focus on at least half the population. "And it requires an understanding from the earliest moment of life, the developing embryo and fetus, all the way to the end of life," she says.

It was her work as a gynecologist that led Lindau to want to better understand sexuality in the context of aging. Many patients had questions about how cancer treatment might impact their sexual functioning, and Lindau was surprised at how little research there was on the topic. This finding was also what led her to launch WomanLab, which aims to expand the reach of her research.

Lindau is a Professor of Obstetrics & Gynecology and Medicine-Geriatrics at The University of Chicago.
ABOUT HCEO

Founded in 2010, the Human Capital and Economic Opportunity Global Working Group (HCEO) is a collaboration of over 500 researchers, educators, and policy makers focused on human capital development and its impact on opportunity inequality. HCEO’s unique approach enables collaboration among scholars with varying disciplines, approaches, perspectives, and fields, and integrates biological, sociological, and psychological perspectives into traditionally economic questions. The result is innovative thinking and approaches to inequality and human capital development research.

HCEO is led by Nobel laureate James J. Heckman, the Henry Schultz Distinguished Service Professor of Economics at the University of Chicago; Steven N. Durlauf, Professor at the University of Chicago Harris School of Public Policy; and Robert H. Dugger, the co-founder of ReadyNation and Hanover Provident Capital.

HCEO focuses its efforts through six research networks that study the most pressing issues within human capital development and inequality: Early Childhood Interventions; Family Inequality; Health Inequality; Identity and Personality; Inequality: Measurement, Interpretation and Policy; and Markets. These networks produce one-of-a-kind conferences, research programs, and publications that highlight findings from the best science and the application of best practices. Through its networks and their resulting research, HCEO plays a vital role in understanding and addressing opportunity inequality around the world.

Impact

- Multidisciplinary networks result in new approaches to research and its application
- Relationships with governments and policy makers put best practices into action
- We have influenced numerous research studies and governmental policies
- Findings are being applied in one of the largest populations in the world—China

We Play a Vital Role

- Income and opportunity inequality is a global and growing problem
- Governments, private think tanks, and others each look at only a portion of the total problem in hopes of finding a lasting solution
- Only HCEO integrates biological, sociological, and psychological perspectives into traditionally economic questions addressed by multidisciplinary teams of experts

- Our research approach treats social science research as an empirical endeavor, resulting in rigorously tested public policy directions and solutions
- Our research provides insights and directions on how to best foster human flourishing and improve economic productivity

Learn more at: hceconomics.uchicago.edu/about
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