An introduction to the new research staff members

Features:
Spotlight on Faculty Research: Fabrizio Zilibotti and Costas Meghir
A Celebration for Peter C. B. Phillips
News Items
Tjalling Koopmans’ Nobel Prize Medal
Contents
Volume 2, Issue 2

03 Letter From the Editor

04 New Faces of Cowles

08 A Celebration for Peter C. B. Phillips’ Forty Years at Yale

10 Fabrizio Zilibotti on How Economics Shapes Parenting

13 Cowles Foundation Lunch Talks

14 Costas Meghir on Seeking Scalable Solutions to Entrenched Poverty

17 News Items

18 A Place of Its Own: Tjalling Koopmans’ Nobel Prize Medal Now on Display

20 Cowles Foundation Discussion Papers

cowles@yale.edu  https://cowles.yale.edu  (203) 432-3703

Cowles Foundation for Research in Economics
30 Hillhouse Avenue
New Haven, CT 06511
Dear Readers,

I am excited to present the latest installment of *The Cowles Quarterly* which has been on a bit of a hiatus over the last year. In this issue we look back at some notable events, including the celebration for Peter C. B. Phillips and the gifting of Tjalling Koopmans’ Nobel Medal by his daughter Anne Frankel and family.

We also look forward to an introduction of the newest members of the Cowles Foundation from the last year and upcoming conferences. I encourage you to look at the in-depth pieces on Cowles members Costas Meghir and Fabrizio Zilibotti who are doing fascinating research in the areas of early-childhood intervention in deprived communities, and how economic forces play an important role in shaping approaches to raising children, respectively.

As always, the Cowles Foundation thanks you for your continued readership and support as the Foundation advances its core mission of theory and measurement for the research in economics.

If you have any comments, corrections, or story ideas, please feel free to contact me directly at matthew.regan@yale.edu. Remember to visit the Cowles website regularly for updates and new discussion paper postings, follow us on Twitter, and like us on Facebook.

Matthew Regan
Communications Manager
Cowles Foundation for Research in Economics

Tjalling Koopman’s Nobel Prize Medal on permanent display at the Cowles Foundation
New Faces of Cowles

The Cowles Foundation has welcomed several new research staff members over the last two years. A brief bio-sketch follows introducing our members who represent a diverse range of fields in Economics.

Orazio Attanasio

Orazio Attanasio is the Cowles Professor of Economics. His research focuses on household consumption, saving, and labor supply behavior; risk sharing; evaluation and design of policies in developing countries; human capital accumulation in developing countries; early years interventions; micro credit; and measurement tools in surveys.

He has carried out evaluations of education financing and access programs, including large conditional cash transfers programs, the impact of scholarships on school enrollment and the effect of subjective expectations on the returns to education.

He is also the president of the Econometric Society, Research Fellow and one of the Directors of the ESRC Centre for the Microeconomic Analysis of Public Policy and co-director of the Centre for the Evaluation of Development Policies (EDePo@IFS) at the Institute for Fiscal Studies.

Yang Cai

Yang Cai is an Assistant Professor of Computer Science and Economics. He received his Ph.D. in computer science from MIT and was a postdoctoral researcher at UC Berkeley. He did his undergraduate study at Peking University.

Yang’s research interests include theoretical computer science, economics and computation, learning, statistics, and probability, as well as online algorithms.
Eduardo Dávila is an assistant professor in the Department of Economics. Before coming to Yale, he was an Assistant Professor of Finance in the Finance Department at the Stern School of Business, New York University.

His research interests lie at the intersection of finance and macroeconomics, with an emphasis on normative questions. He has published papers in *The Review of Economic Studies* and the *Journal of Financial Economics*.

Soheil Ghili is an assistant professor of Marketing at Yale School of Management. His main areas of research are quantitative marketing and empirical industrial organization.

His most recent research has focused on the determination of prices in vertical markets (i.e., those with upstream and downstream firms such as the health insurance market) as well as two-sided markets (such as ride-sharing).

Kaivan Munshi is a professor of economics. His research career has been devoted to the analysis of communities and their interaction with economic activity.

His long-term research program examines the multifaceted role played by informal community institutions in the process of development. The first stage in this research was devoted to providing credible empirical evidence that social norms and community-based networks have large effects on individual decisions and outcomes in developing economies. The second stage studied how networks can support or restrict the mobility of their members, depending on the context, with important consequences for development. Much of this work is based in India, where the caste is a natural social unit around which networks serving different economic functions (such as providing jobs and credit for their members) can be organized.

He holds a Ph.D. from MIT, as well as a M.S. and M.C.P. From the University of California, Berkeley.
Gerard Padró i Miquel

Gerard Padró i Miquel is a Professor of Economics and Political Science at Yale University, where he is also the Director of the Leitner Program of International and Comparative Political Economy.

He is interested in the interplay between politics and economics as a barrier for development with a focus on civil conflict and on the politics of non-democratic regimes. His previous work has been published at the *Quarterly Journal of Economics*, *American Economic Review*, *Review of Economic Studies*, and the *Quarterly Journal of Political Science* among others.

Rohini Pande

Rohini Pande is the Henry J. Heinz II Professor of Economics, and the Director of the Economic Growth Center. Her research is largely focused on how formal and informal institutions shape power relationships and patterns of economic and political advantage in society, particularly in developing countries. She is interested in the role of public policy in providing the poor and disadvantaged political and economic power, and how notions of economic justice and human rights can help justify and enable such change.

Her most recent work focuses on testing innovative ways to make the state more accountable to its citizens, such as strengthening women’s economic and political opportunities, ensuring that environmental regulations reduce harmful emissions, and providing citizens effective means to voice their demand for state services.

Pande most recently served as the Rafik Hariri Professor of Political Economy at Harvard Kennedy School, and previously held teaching positions in the Yale Department of Economics from 2003 to 2006.

Soenje Reiche

Soenje Reiche is a senior lecturer in the Department Of Economics. She works on problems in information economics, mechanism design and contract theory, with her current work focusing on the economics of advice.

She holds a Ph.D. and M.Sc. in Economics from the LSE, and an M.Sc. in Mathematics from the University of Bonn.
Katja Seim has been appointed professor of economics, and will hold joint appointments in the Department of Economics and the School of Management. Seim specializes in applied microeconomics and industrial organization.

Her research evaluates how firms respond to public policies, including entry and technology deployment regulations, competition policy, and tax policy in their entry, product positioning, and pricing choices.

Katja Seim

Anna Sanktjohanser is an assistant professor after serving as a Cowles Foundation Postdoctoral Fellow last year. She received a Ph.D. in Economics from the University of Oxford in 2017 and was a postdoctoral fellow at the Toulouse School of Economics where she worked on bargaining and reputation.

Philipp Strack joined the department from UC, Berkley as an associate professor, and also serves as the DUS for the new computer science and economics major. He is a microeconomic theorist who studies peoples’ behavior in dynamic situations.

His work focuses on research explores questions of mechanism design, learning, dynamic nonexpected utility models and contests.

Philipp Strack

Ebonya Washington was named as the Samuel C. Park Jr. Professor of Economics. She joined the Yale faculty in 2004 as an assistant professor of economics and served as the Henry Kohn Associate Professor of Economics. She specializes in public finance and political economy with research interests in the interplay of race, gender, and political representation; the behavioral motivations and consequences of political participation; and the processes through which low-income Americans meet their financial needs.

Ebonya Washington
A Celebration of Peter Phillips’
More than 100 Yale and non-Yale colleagues, as well as current and former students attended a two-day conference held on October 19-20, 2018, to celebrate Peter Phillips illustrious career at Yale.

Presenters at the conference included notable economists Peter M. Robinson, Oliver Linton, and Bruce Hansen.

Phillips began teaching at Yale in 1979, and has been a member of the Cowles Foundation for just as long. As a Cowles Foundation staff member, he has authored and coauthored more than 300 discussion papers and has published nearly 300 papers.

He has companion appointments as Distinguished Professor at the University of Auckland, Distinguished Term Professor at Singapore Management University, and Adjunct Professor at the University of Southampton. He is an elected fellow of many learned societies in economics and statistics, including the Econometric Society, the Institute of Mathematical Statistics, and the American Statistical Association, as well as the American Academy of Arts and Sciences, the British Academy, and the Royal Society of New Zealand. He is a distinguished fellow of the New Zealand Association of Economists.

Phillips is founder and editor of *Econometric Theory* and founding editor of *Themes in Modern Econometrics* for Cambridge University Press.

He has an extended family fellowship of more than 80 Ph.D students, many of whom are now prominent econometricians.
Fabrizio Zilibotti on How Economics Shapes Parenting

By Michael Cummings, Yale News

Fabrizio Zilibotti, the Tuntex Professor of International and Development Economics at Yale, and Cowles faculty staff member spoke with Yale News about his new book, “Love, Money & Parenting: How Economics Explains the Way We Raise Our Kids.” Zilibotti and co-author Matthias Doepke, a professor of economics at Northwestern University, make the case that economic forces play an important role in shaping approaches to raising children. An edited version of the conversation follows:

Fabrizio Zilibotti’s career has taken him across the globe. Born and raised in Italy, he has lived in the United Kingdom, Sweden, and Switzerland before arriving in New Haven. He regularly travels to China. Over the years, he says, he has observed that parents in different countries tend to take different approaches to raising children.

Swedish parents tend to be relaxed and give their children ample freedom, Zilibotti noted. Switzerland is more rule-oriented than Sweden while Chinese parents are generally very strict, he said. In the United States, helicopter parents closely monitor their children’s schooling and activities, hoping to best position them for success.

How does economics shed light on parents’ choices?

We argue that economic conditions, and how they change over time, affect parenting styles and what people consider good parenting. We draw distinctions among three styles that were identified by developmental psychologist Diana Baumrind: an authoritarian style, in which parents demand obedience and assert strict control; a permissive style that gives children a lot of freedom; and an authoritative style — the middle ground — by which parents strive to influence their children’s choices and shape their values, not by demanding obedience, but through reasoning and persuasion.

Our new angle is the idea that the interaction of economic incentives and constraints affects parents’ choices. We take the view that parents adopt child-rearing strategies that seem best suited for the socio-economic conditions in which their children are growing up. For example, if you are in a highly competitive society — where future success hinges on getting into a good university — parents have an incentive to be less permissive and more authoritative.

Parents also face constraints. They may have limited amounts of time and money to spend on their children and that may affect their decisions. For instance, their children may not be able to participate in certain extracurricular activities because the family budget does not allow it. In the end, the interaction between incentives and constraints determines, or at least co-determines, the choice of parenting style.

How does inequality influence parenting styles?

It affects both the incentives and the constraints. Inequality and intergenerational mobility — the possibility of moving upward in society — can be very important in determining parents’ incentives. If you live in a society that is essentially egalitarian, it may be a good idea to let your children find their own way, follow their instincts, and make their own mistakes. In the end, mistakes will not be very consequential. They might even help children to better appreciate life or discover new talents. If you think of a less egalitarian society where future success can depend heavily on getting accepted to elite universities like Yale, getting good grades and achieving high test scores is very important. Parents will respond to that incentive by emphasizing values conducive to academic success and by paying very close attention to their children’s choices and activities.

Inequality also affects people’s access to opportunities. If there are some groups that feel excluded from a set of opportunities, they may be less responsive to incentives. What we observed over time is the fact that approaches to parenting may become more diverse in a society as inequality grows. In a more unequal society, you might see some parts of the middle class or upper-middle class where parents work very hard for their children to succeed and get into the best universities while lower-income parents abandon those goals as impractical or unrealistic.
Does inequality account for differences in parenting styles between countries?

In highly competitive societies with more inequality, parents tend to be systematically less permissive and more authoritative. The extreme example is China where parents are highly authoritative and even authoritarian. A less extreme, but also clear example is the United States where many parents define themselves as authoritative or emphasize the value of hard work. The emphasis on independence and creativity is less than, say, in Sweden or in Norway, which are countries with a lower level of inequality where parents tend to adopt more permissive parenting styles.

What kinds of data are your findings based upon?

There is data available at the international level and for individual countries that demonstrates the values that parents think are important for child rearing. We looked at the World Values Survey, which asks parents around the globe to choose what they consider the five most important values to instill in their children. We identify permissive parenting with an emphasis on the value of creativity and independence. We associate authoritative parenting style with an emphasis on hard work without a specific emphasis on obedience. Authoritarian parents are those who emphasize the value and importance of obedience.

We used some data specific to the United States to corroborate the World Values Survey data, including the National Longitudinal Survey of Youth, which incorporates questions related to parenting style. We found the same pattern. We also looked at data concerning the amount of time parents spend with their children, which we think can be taken as an alternative measure of intensity of parenting. What we see now is that across all countries, and more so in countries where inequality has grown faster, the number of hours that parents spend with their children has increased. That time is often associated with homework or education-related activities.

It's important to note that we do not consider this a measure of how much parents love their children. When I grew up, my parents would let me roam more freely, people had larger families. In the past, when parenting wasn't so intensive and children were allowed to spend huge amounts of time with that child. In the past, when parenting wasn't so intensive and children were allowed to roam more freely, people had larger families.

Do economic factors influence people's decisions about having children?

Here we borrow some ideas from the Nobel laureate Gary Becker, who introduced the notion of a quality-quantity tradeoff. When intense child rearing becomes more attractive, it becomes problematic to have very many children because it would require an incredible amount of time to parent them. We see today more stressed parents who have one child and spend huge amounts of time with that child. In the past, when parenting wasn't so intensive and children were allowed to roam more freely, people had larger families.

We look at how parents of daughters have changed their views over time. One view of the world is that cultural values change and so parents emphasize different values at different periods of history. Our view is that there is another channel: Namely, in a society where opportunities are more equal across gender,
there is more incentive for parents to emphasize the same values to both their sons and daughters. This was different in earlier generations, when boys and girls often had very different childhoods. At the beginning of the 20th century, women faced strong limitations in the labor market. Encouraging a liberal spirit in those days might produce a very unhappy daughter, who would grow up to find her opportunities limited by her gender. Today, women in industrialized countries have far more opportunities in the labor market than in the past, so parents are raising their children in a more gender-neutral way.

In highly competitive societies with more inequality, parents tend to be systematically less permissive and more authoritative.

How does public policy affect parenting styles?

Consider policies that promote gender equality. When policies emphasize equal opportunities for men and women, parents will respond by prioritizing education for both sons and daughters. Today, more women than men are obtaining college degrees, but it wasn’t this way in the past. In a society where opportunities are more equal across gender, it is more attractive for parents to emphasize the same values to their sons and daughters and raise their children in a gender-neutral manner.

There are other channels where policies that affect inequality and equal opportunities can influence how parents decide to interact with their children. In a society where there is more distribution and more equality, parents may be less obsessed in engaging in the rat race to get their children into the best schools. At some level, one might think that this would discourage the accumulation of human capital – the knowledge, skills, and talents within a society’s labor force that creates economic value. In the book, we suggest that competition is not always socially desirable because it might induce parents and children into putting forth an enormous amount of effort while vying for a very limited number of positions at the best schools, which generates a lot of wasteful activity. There is also the notion that childhood has become a less joyful and independent stage of life because it is too intensely focused on positioning children for future success. In a society that is less competitive, children have more opportunity to simply enjoy their childhoods.

We also emphasize the importance of family-oriented policies, especially when considering disadvantaged groups, such as single mothers, who face very difficult challenges in keeping up with this extreme intensity in certain parenting approaches. We emphasize the importance of public provision of childcare at an early age to make it easier for parents in a disadvantaged condition to work and have their children cared for. The general message here is that one wants policies to target both incentives and opportunities. It will not only reduce inequality today, but it will do so for future generations as well.

You have a daughter. How did your experience as a parent influence your approach to this work?

My family is a bit unique in that we had contact with at least five countries. I’m Italian, my wife is Spanish, and my daughter was born in Sweden. Then we spent some time in the United Kingdom before moving to Switzerland. Now we live in the United States, but our daughter is grown up. Moving from one country to another, I realized that there are very different codes of behavior in each country.

In Sweden, we were often pressured not to stress our child. It was clear that we were somehow different from the average Swedish parents. We enrolled our daughter in music school at an early age and the music teacher was from Eastern Europe and very strict. Other parents were shocked that we would do this. Children in Sweden start school at age 7, and we asked if our daughter could start one year earlier. This also generated disapproval. Our daughter was different from the typical Swedish child in the sense that she was more self-disciplined.

When we moved to Switzerland, our 7-year-old daughter found herself in a situation were the codes were more rigid. Switzerland is not China, but it is more rule-oriented than Sweden. There was a much more clearly defined principle of authority. All of a sudden, our daughter found herself on the opposite side of the spectrum. She was the child in class who was not sufficiently formal, and we were a bit under pressure to get her to abide the rules. It was an interesting experience because we were the same parents, just living in a different country.

How will parenting styles evolve if current economic trends continue?

It is hard to see reversion in this trend toward more unequal societies, which makes it hard to forecast a return to more permissive and relaxed parenting in the United States and elsewhere. I think the answer will depend on what path policy takes. I believe investment in public education is a very important vehicle for addressing inequality. You can, of course, redistribute resources on some level, but the emphasis should be focused on providing all children a high-quality public education.

Subsidized daycare would also help to reduce inequality. It’s not incredibly expensive to do because it favors participation in the labor force and could be partly funded by increased tax revenue. It would also make the United States less economically segregated because parents from all social classes could take advantage of it. In Sweden, I observed that children of every societal level attended the public schools and public daycare. Some children’s parents were immigrants and relatively poor while other parents were professionals. There was more mixing and people would get to know each other despite coming from different environments.
The Cowles Foundation hosts a speaker series throughout the academic year. Below are some of our guest speakers from the last year.

**Cowles Lunch Talk**


Wednesday, February 19, 2020
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Paul W. Rhode
University of Michigan
Professor of Economics

https://cowles.yale.edu

**Cowles Lunch Talk**

“Power, Politics and Proof: Asking the Right Questions in Development”

Wednesday, October 23, 2019
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Robert W. Dimand
Department of Economics
Brick University

https://cowles.yale.edu

**Cowles Lunch Talk**

“What can we do to improve diversity and inclusion in economics? Evidence from surveys and experiments”

Wednesday, October 2, 2019
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Amanda Bayer, Ph.D. '95
Professor of Economics
Swarthmore College

https://cowles.yale.edu

**Cowles Lunch Talk**

“Measuring the Unmeasurable: Beliefs, Attitudes, Bargaining Power” (joint with Iagvild Almas and Pam Jervis)

Wednesday, November 20, 2019
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Orazio Attanasio
Yale University
Professor of Economics

https://cowles.yale.edu

**Cowles Lunch Talk**

“Politics and Health Spending in the United States”

Wednesday, February 20, 2018
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Zack Cooper
Associate Professor of Public Health and Economics
Yale University

https://cowles.yale.edu

**Cowles Lunch Talk**

“A Duality Based Framework for Multi-Dimensional Mechanism Design”

Wednesday, November 6, 2019
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Rohini Pande
Henry J. Heinz II Professor of Economics and Director, Economic Growth Center

https://cowles.yale.edu

**Cowles Lunch Talk**

“The Cal-de-sac in Indian Banking: A Dominant Government Sector, Limited Fiscal Space and Independent Regulation (Is There an Impossible Trilemma?)”

Wednesday, October 9, 2019
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Phillip Leslie
Chief Digital Economist and Vice President, Americas

https://cowles.yale.edu

**Cowles Lunch Talk**

“Over-hiring Entrepreneurs for High-Growth or Tech Companies”

Wednesday, March 27, 2019
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Yang Cai, Ph.D.
Yale University – Computer Science

https://cowles.yale.edu

**Cowles Lunch Talk**

“Power, Politics and Proof: Asking the Right Questions in Development”

Wednesday, October 23, 2019
12:00 pm – 1:00 pm

Location: Tobin Lounge 28 Hillhouse Avenue

Lunch provided

Host: Larry Samuels, Ph.D.
Contact: 2-3704

Urjit Patel
Former Governor of the Reserve Bank of India - Recipient of the 2019 Wilber Cross Medal (for Academic Achievement)

https://cowles.yale.edu
Costas Meghir on Seeking Scalable Solutions to Entrenched Poverty

By Michael Cummings, Yale News

Yale economist and Cowles staff member Costas Meghir spoke to Yale News about this ongoing research, which is funded by the National Institutes of Health. An edited and condensed version of the conversation follows:

Costas Meghir has a children’s picture book in his office. The cover text is in Oriya — the official language of the Indian state of Odisha. The pages depict typical household scenes in the region, where the World Bank estimates that more than 14 million people live in poverty.

Meghir is part of a research team evaluating an early-childhood intervention in Odisha aimed at helping children in the region’s deprived communities achieve their potential — thereby reducing the intergenerational transmission of poverty. The researchers are investigating whether an educational intervention that has succeeded in small-scale experiments can be expanded into an effective policy serving hundreds of thousands of children.

The picture book is part of the curriculum the study is testing. Meghir emphasizes that the point of the research is not to demonstrate that such interventions work, but to show that they can work on a large scale.

“We’re in the business of exploring how certain interventions would translate into scalable policy with all of the challenges that involves,” he said.

**Your work tests the scalability of early-childhood interventions that proved effective in smaller experiments. Can you describe the foundational research upon which your project is based?**

People have been studying early childhood development since the 1960s. There were two very famous experiments in the United States. One was the Perry Preschool Project in Michigan and the other was the Carolina Abecedarian Project, which was done in North Carolina in the 1970s. Both showed that children from poor and deprived communities benefited from early-preschool interventions. Both have been reanalyzed to confirm their long-term effects.

I’ve been working with economist Orazio Attanasio — who will be joining Yale in July — and Sally Grantham-McGregor of University College London, who designed a stimulation-based intervention delivered via home visits with a curriculum of play activities, language development, child-mother interactions, etc. It was delivered to malnourished kids between the ages of one and three in the slums of Kingston, Jamaica. The intervention has demonstrated very important effects both in cognition and labor-market outcomes. It was transformational.

**How does your work seek to build upon these studies?**

Our idea was to take Grantham-McGregor’s approach and see if we could design it in a scalable fashion so it could be implemented as a policy. All of the experiments that I mentioned are relatively small scale. The Perry experiment was the largest with just 123 kids. The Jamaican experiment involved 120 kids. In both cases, some of the children were in a treatment group and some were in a control group. The researchers had close control of the experiment and the process was tightly managed.

**You completed a project in Colombia in 2010. What did it involve? What did you find?**

Those studies prove the concept. They prove that if you take children who are growing up in a very deprived environment and offer them one of these interventions, their outcomes can change dramatically. The studies show that there is un-mined potential there — that poverty does indeed cause perpetuation of poverty. The question is: Can we take that idea and transform it into an effective policy that can be implemented in a cost-effective way and produce similar results on a large scale?

Our work in Colombia involved 96 communities. We implemented a stimulation intervention similar to the one in the Jamaica experiment in a random subset of the communities. We hired women from within these communities and trained them to deliver the curriculum. We created a mentoring structure with local social workers. Each social worker was...
responsible for about 10 of the intervention communities. We were trying to mimic a structure through which a government would implement the program. You need a layer of more highly qualified people to mentor and train local community workers. We had reasonably good results, but not as high as the Jamaica results. In technical language, we improved the children’s cognition by about 26% of standard deviation. The Jamaica experiment achieved an improvement of 80%. The study also showed that the effects of the intervention on Colombian children faded after two years.

An improvement of 26% of standard deviation is significant if you can sustain it: According to U.S. data, a difference in cognition of this amount at an early age is associated with an increase in earnings equivalent to that obtained with an extra year of education. It’s substantial. The question is whether it is large enough to be sustained without further intervention. It was not the effect in Colombia that was disappointing; it was that the effect faded. We think it faded because an effect of that magnitude probably needs further intervention to be sustained. Half of the improvement in the Jamaican intervention was also lost, but when you’re losing half of 80%, you are still doing very well.

How does your project in India build on your results in Colombia?

After completing our work in Colombia, we moved to Odisha, where we are doing three things: First, we are replicating our Colombian experiment. Second, we are introducing another mode of delivery for the intervention, which is playgroups rather than one-on-one home visits. We are gathering children from a community into one place for a weekly playgroup with the same type of curriculum adapted for a group. Third, in order to address the problem of fading, we are sustaining the intervention up to primary-school age.

What have you found so far?

We’ve completed the first phase, which showed something very interesting. We got an effect larger than that in Colombia. We have 192 communities in this study, so it is a larger scale than in Colombia. We are intervening in about half of the communities. We found that the playgroups were delivering more or less the same impacts as the one-on-one home visits, which was interesting.

At the end of the first phase, which lasted two years, we re-randomized the children. Half were placed into existing preschool centers. These pre-schools are government run, but they don’t function very well. Our intervention is to go into the schools, introduce a mentor or coach who visits twice a week and provides a structured curriculum that the coach helps the school implement. The key idea is that we are sustaining the intervention for half the kids beyond the infant/toddler phase into preschool.

What is the significance of the re-randomization?

At the end of the experiment, we will have four groups of children: One that didn’t receive an intervention at all. One that only had an intervention while in preschool and one that received both interventions. This will allow us to see if the kids who started later do as well as the kids who started earlier. If we see fading for the kids who only did the early bit, will we sustain the impact in the kids who got both interventions? And will the effect be reinforced? We are halfway through the second phase. As far as I know, this has not been done before in any context: Nobody has taken children from ages one to five and broken and compared these alternative combinations so as to learn the importance of sustaining an intervention and the best age to start.

What are the challenges to scaling up?

There are many challenges. How will the parents react? Will they reinforce the intervention or will they reallocate time and resources away from the children who received the intervention? How does it interact with the public programs and infrastructure? How capable and motivated are the local workers to deliver the intervention over protracted periods of time? Even if we prove the concept initially, further challenges will arise as you scale it up and try to bureaucratize it.

The name of the game is scaling up. That raises two questions: Is the cost reasonable?

At that reasonable cost, can the intervention be effective in the long run? You can encounter controversy over what constitutes “reasonable.” To some, reasonable seems to mean “zero cost”! To me, that just doesn’t make sense. If free lunches existed, we all would be eating them by now.

Continued on page 16
How do you administer large-scale experiments like these?

Of course, the lower a program's cost, the more likely it is to be adopted. We have to educate politicians — those who are willing to be educated — that, while you must do a cost-benefit analysis, nothing will be free. What is important is whether the program has positive returns relative to the next best alternative or at least relative to the status quo. Unfortunately, many of the returns might come in the future. You have to pay now for programs that will produce children who are better skilled and, as a consequence, achieve a reduction in poverty.

In India, we are working with a well-known nongovernmental organization (NGO) called Pratham, which is probably the biggest education NGO in India. They are interested in the research because they want to learn about the possibility of implementing these programs all over India. They are not bureaucratic, which often makes them a much better conduit than the government. They are very versatile. It’s really up to them to make sure the program is implemented.

It’s a big project. There are 1,200 children involved — both in the treatment and control groups. We have about 250 people working in the field. The researchers cannot exert tight control, which is part of the experiment in some sense. It is being implemented by an NGO that has a national presence. We can advise them and help with training, but they have to do it.

Hiring local community workers is important because it solves a human resources problem and helps to achieve buy-in from the community. You are taking people from within these communities to propagate the intervention. The question is can you make it work from the effectiveness point of view.

How do the parents react?

They love it. These are very deprived environments and people feel abandoned — that nobody cares about their plight. Suddenly they see some infrastructure being put in place that is focused on helping their kids. They appreciate that. You have to convince them to follow the curriculum beyond the actual visits or playgroup sessions. The intervention is fundamentally a parenting intervention.

The kids don’t have toys or books. You get buy-in because their parents see you are helping their children. The next step of getting buy-in is in the details — getting the parents to go through a picture book with their child and talk to them and do play activities. That is difficult because you’re trying to initiate behavioral change in a very deprived environment where there are a lot of negative factors competing with you. In Colombia, we found that about 37% of the mothers in the study were depressed.

Health is factor, too. These communities lack sanitation and clean running water. The children contract dysentery and other diseases. This will inhibit their growth and make them anemic and will have a negative effect on their cognitive development. There are the practicalities of every day life. Even if the mother realizes that she must perform daily tasks for her child to develop better, there are competing tasks required just to survive. So in a sense the parenting intervention seeks to change their beliefs about the importance of investing some of their scarce time and resources on their children.

Upcoming Cowles Conferences

• 16th Annual Conference on General Equilibrium and its Applications
• 2020 Summer Conference on Economic Theory
• 2020 Summer Conference on International Trade
• 2020 Summer Conference on Econometrics
• 2020 Summer Conference on Labor & Public Finance
• 2020 Summer Conference on Macroeconomics
• 2020 Summer Conference on Models and Measurement
News Items

Chen, Meghir Elected to American Academy of Arts and Sciences

Cowles research staff members Xiaohong Chen, Malcolm K. Brachman Professor of Economics, and Costas Meghir, Douglas A Warner III Professor of Economics, were both elected to the 239th class of the American Academy of Arts and Sciences.

Professors Chen and Meghir will join more than 200 other members elected into the 2019 class of the American Academy of Arts and Sciences for their leadership and research contribution in the field of economics. Professor Chen focuses her research on econometric theory, semiparametric and nonparametric models and methods, sieve estimation and inference, and nonlinear time series. Professor Meghir's primary research interests are in labor economics, the economics of education and development economics.

2019-20 Arvid Anderson Fellows

The Cowles Foundation has announced the 2019-20 recipients of the Arvid Anderson Prize Fellowship in Economics. The five graduate students are: John Finlay (International Trade and Macroeconomics), Soonwoo Kwon (Econometrics), Weicheng Min (Microeconomic Theory and Behavioral Economics), Soumitra Shukla (Labor Economics, Economics of Education, and Industrial Organization), and Xinyang Wang (General Equilibrium Theory and Game Theory).

The fellowship prize is awarded annually to one or more pre-doctoral or post-doctoral students who are selected by a committee of Cowles professors in the Department of Economics with the approval of the Dean of the Graduate School. The cash prize also includes time off from academic duties for one semester, giving students time to concentrate on their research.

With the fellowship's purpose to foster the advancement of economic research, the award was established in 1982 by the award's namesake, Carl Arvid Anderson. Mr. Anderson created the award out of inspiration from a scholarship he received as an Yale undergraduate, to which he attributes in helping him earn a B.A. in Economics in 1936.
A Place of Its Own: Tjalling Koopmans’ Nobel Prize Medal Now on Display

The Cowles Foundation has put Tjalling Koopmans’ Nobel Prize Medal on permanent display at 30 Hillhouse. A secure showcase alongside a plaque are mounted on a wall in the front lobby prominently displaying the prize.

The medal was gifted to Cowles by the Frankel family during an intimate ceremony held at 28 Hillhouse Avenue on May 24, 2019. The donation of Koopmans’ Nobel Medal is especially meaningful, as he was a lifelong staff member of Cowles Foundation who served two terms as director in the 1960s, and more importantly, was instrumental in moving the Foundation (then the Cowles Commission) from the University of Chicago to Yale in 1955.

With the help of the Yale Peabody Museum Graphic Designer Sally Pallatto and Museum Technician Maishe Dickman, the pair created a wall plaque, crafted a mount for the medal, and put the finishing touches on the display last month.

During the gifting ceremony, Anne Frankel (Koopmans’ daughter) spoke of her father, his work, and details of the Nobel Prize Medal before handing it over to former Cowles Director, Al Klevorick, who accepted the gift on behalf of the Cowles Foundation.

“In my view, Tjalling Koopmans embodied, in person and in his work, the Cowles Foundation,” said Klevorick. “It is a great honor for us to have the medal and be able to display it.”

To mark the occasion, Yale Economics Professors and fellow Nobel laureates William Nordhaus and Robert Shiller were on hand to speak of Koopmans’ influence on their careers.

Professor Robert Shiller spoke of Koopmans’ influence in the use of theory in the field of economics. Shiller went on to explain how the Cowles Foundation seal and its motto changed when the foundation moved to Yale, and how the new motto was influenced by Koopmans after the Foundation’s move. “The motto is, ‘Theory and Measurement,’ which is exactly a transposition of [Koopmans’] 1947 paper,” noted Shiller.

“I think the spirit of [Koopmans’] research lives on at Cowles,” said Shiller. “Tjalling was very important in forming the ethos and method that lives on today in the Cowles Foundation, and more broadly, the Yale community.”

Professor William Nordhaus spoke of meeting Tjalling Koopmans for the first time during a job interview, and how he was impressed with Koopmans’ wide range of interests. He said it was Koopmans’ influence of mathematical programming that put him on the environmental-economics track. Koopmans suggested that Nordhaus use programming models to better understand the way systems work rather than econometrics for e-structural analysis to ultimately see the impacts of economics on climate change.

“"In my view, Tjalling Koopmans embodied, in person and in his work, the Cowles Foundation. It is a great honor for us to have the medal and be able to display it."

-Al Klevorick
In his remarks, Nordhaus quoted the speech given by Koopmans during the 1975 Economics Nobel banquet. In the speech, Koopmans referenced one of Nordhaus’ early studies on environmental issues which was an honor to Nordhaus, but more to the point, it showed Koopmans’ foresight. One line from the speech read, “[Nordhaus’] study is an open invitation to climatologists and agronomists to trace the probable effects of the CO2 standard on climate variables and hence on polar icecaps, on ocean levels and on agricultural yields – thus enabling economists to seek a balance between energy production, food production, and anticipated other global effects and interregional inequities to be compensated for.” Nordhaus went on to say, “I thought that was really extraordinary; so far ahead of his time.”

“That was what was so special about working with Tjalling,” said Nordhaus. “He had fundamental and deep insights into so many areas. It lives with me and my spirit in a way I think about economics, and a way I think about society and social issues.”

Anne Frankel was joined by her husband Joseph Frankel, her son Martin Ünsal-Frankel, and Martin’s wife, Gün Ünsal-Frankel. Joseph Frankel reminisced of Koopmans from a “different perspective” with an anecdote as a “young suitor” when courting Anne. Joseph Frankel said he was given a problem by Koopmans to solve to see if he was capable of a shift in perspective. “Fortunately, I passed that one,” quipped Frankel.

Tjalling Koopmans (jointly with Leonid Kantorovich) was awarded the Nobel Memorial Prize in Economic Sciences in 1975 for his contributions to the field of resource allocation, specifically the theory of optimal use of resources. “I think [the medal] is and will be an inspiration for faculty and students who come here to see it,” said Nordhaus.