

# IPA's Third Annual Research Gathering

on Financial Inclusion and Social Protection

# October 27-28, 2017 | Northwestern University

James L. Allen Center 2169 Campus Drive Evanston, IL 60208





## **Brief Agenda**

#### October 27, 2017

Presentation titles and descriptions can be found on pages 4-8.

8:30-9:00	Registration and coffee			Atrium Lobby
9:00-9:10	Welcome Annie Duflo, Innovations for Poverty Action			Atrium Dining Room
9:10-9:30	Opening remarks Dean Karlan, Northwestern University			Atrium Dining Room
		- CHANGE ROOMS 1	0 MIN -	
9:40-10:30	Social Protection research agenda	Atrium Dining Room	Financial education	140 Brownfield
	Michelle Kaffenberger, World Bank		Matthew Bird, Universidad del Pacífico	
	Thomas Bossuroy, World Bank		Veronica Frisancho, Inter-American Development Bank	
10:30-11:00	Coffee break			Atrium Lobby
11:00-11:50	Microcredit impact	Atrium Dining Room	Timing of transfers	140 Brownfield
	Cynthia Kinnan, Northwestern University		Silvia Prina, Case Western Reserve University	
	William Parienté, Université Catholique de Louvain		Jialan Wang, University of Illinois	
		- CHANGE ROOMS 1	0 MIN -	
12:00-12:25	Safety net administration	Atrium Dining Room	Lottery behavior	140 Brownfield
	Yusuf Neggers, Brown University		Bilal Zia, World Bank	
12:30-1:30	Lunch			Atrium Dining Room
1:30-2:45	Savings impact	Atrium Dining Room	Investment decisions	140 Brownfield
	Catia Batista, Universidade Nova de Lisboa		Enrichetta Ravina, Northwestern University	
	Lasse Brune, Northwestern University		Julio Riutort, Universidad Adolfo Iba	áñez
	Billy Jack, Georgetown University		Steve Wendel, Morningstar	
2:45-3:30	Coffee break			Atrium Lobby
3:30-4:30	Long-term results of livelihood programs			Atrium Dining Room
	Chris Blattman, University of Chicago			
	Dean Karlan, Northwestern University			
4:30-4:45	Closing Remarks Rebecca Rouse and Nathanael Goldberg, Innovations for Poverty Action			Atrium Dining Room
6:00-8:00	Dinner reception at Dean's residence			225 Lake St, Evansto

## October 28, 2017

Presentation titles and descriptions can be found on pages 9-12.

9:00-9:15	Opening remarks Jonathan Zinman, Dartmouth College			Atrium Dining Room		
- CHANGE ROOMS 15 MIN -						
9:30-10:20	Cash	Atrium Dining Room	U.S. consumer debt	140 Brownfield		
	Richard Sedlmayr, Wellspring Advisors  Andrew Zeitlin, Georgetown University		Jeremy Burke, University of Southern California			
			Samuel Dodini, Cornell University			
10:20-11:00	Coffee break			Atrium Lobby		
11:00-11:50	Student loans	Atrium Dining Room	Credit product design	140 Brownfield		
	Rourke O'Brien, University of Wisconsin-Madison		Giorgia Barboni, Princeton University			
	Lesley Turner, University of Marylan	d	Adam Osman, University of Illinois			
		- CHANGE ROOMS 1	0 MIN -			
12:00-12:25	Asset transfer spillover effects on nutrition	Atrium Dining Room	Picture-based insurance	140 Brownfield		
	Wameq Raza, BRAC		Berber Kramer, IFPRI			
12:30-1:30	Lunch			Atrium Dining Room		
1:30-2:30	Targeting			Atrium Dining Room		
	Varun Kshirsagar, Innovations for Po Natalia Rigol, Harvard University	overty Action				
2:30-2:45	Closing remarks Chris Udry, North	western University		Atrium Dining Room		

#### **Detailed Agenda - October 27, 2017**

TIME	SESSION	ROOM
9:40 – 10:30	Social Protection Research Agenda	Atrium Dining Room

Innovating and adapting the graduation model: A research agenda for the new Partnership for Economic Inclusion *Michelle Kaffenberger* with Aude de Montesquiou, Syed Hashemi, and Kate McKee Ongoing Study

There are currently more than 100 implementations of the graduation approach in nearly 45 countries worldwide, many of which are being implemented and scaled by governments incorporating the model into their social protection systems. A set of six RCTs across Africa, South Asia, and Latin America showed that the graduation approach had positive impacts on income and other outcomes for the extreme poor. These effects persisted 18 months after services ended, and a recent follow-up survey in India found that impacts at that site were sustained nearly six years after services ended. Questions remain, however, about how the model can be optimally designed for greatest impact and cost effectiveness, how it can be adapted to serve specific populations such as refugees or youth, and how the model can best be operationalized at scale by governments and INGOs. This presentation will discuss the research agenda for the new Partnership for Economic Inclusion (PEI), which is housed at the World Bank and brings together researchers, practitioners, policymakers, and funders to accelerate the learning, innovation, and scaling of the model. It will present priority research areas that PEI and its Community of Practice collaboratively aim to address over the next three to five years.

Graduation at scale: the multi-country Sahel experiment

**Thomas Bossuroy** with Markus Goldstein, Dean Karlan, Harounan Kazianga, William Parienté, Patrick Premand, Chris Udry, and Julia Vaillant Working Paper

A package of productive services was designed to increase livelihood opportunities and foster resilience for the poorest households in the Sahel, and is about to be implemented at scale as part of Government social safety net systems in six countries (Mauritania, Senegal, Burkina Faso, Mali, Niger, Chad). The package includes coaching, group formation, savings facilitation, psycho-social support, market access, and a productive transfer in the form of a one-off cash grant. Beneficiaries are all existing recipients of regular cash transfers for consumption support. A multi-country RCT will test the impact of receiving the full package; the package without the productive transfer; the package without the psycho-social support; no productive services. The presentation will discuss intervention design and implementation arrangements (which will be underway in two countries), survey instruments and data collection (with a baseline survey completed in two countries) and an analysis plan.

9:40 – 10:30 **Financial Education** 140 Brownfield

Financial education for high school students in Peru

Veronica Frisancho Early Results

This study explores the potential of school-based financial education programs for the youth. Taking advantage of a large-scale pilot conducted by the Ministry of Education of Peru in 2016, the research team implemented a randomized controlled trial in a sample of 300 high schools to evaluate the impact of the program, Finanzas en mi Colegio. The intervention provided personal finance lessons to students using a workbook specifically designed for each of the targeted grades. The workbook content was delivered by teachers who were previously trained in the contents and requested to incorporate the financial education lessons in one of the regular courses. Despite the modest intensity of the treatment, the pilot was extremely effective in improving students' and teachers' financial knowledge by 0.14 SD and 0.30 SD, respectively. The treatment also led to significant improvements in students' self-control skills and a reduction of the share of expenditures destined to superfluous consumption goods. Depending on the grade, the treatment also generated positive effects on shopping habits and financial autonomy. The impact on teachers' behavior was mostly observed on savings habits, with formal savings increasing the most. The intervention proved to be cost-effective, with a cost per student of only US\$ 6.6.

October 27-28, 2017 | Northwestern University

Readying to save via tablet-based financial education: Evidence from a randomized evaluation in Colombia

Matthew Bird with Orazio Attanasio and Pablo Lavado Working Paper

Numerous developing country governments, such as Brazil and Mexico, have adopted conditional cash transfer (CCT) programs as a social safety net, providing billions of dollars in transferred funds to millions of low-income citizens, in many cases by depositing them directly into a bank account. However, most of these recipients have little to no previous experience with formal financial products, thus providing the opportunity for product-linked training. To address this financial capability gap for recipients of Colombia's government CCT program, Fundación Capital designed LISTA, a program founded on the notion of "freeing financial education" from the classroom via the use of tabletand smartphone-based apps. Researchers collaborated with Fundación Capital and the Government of Colombia to conduct a randomized evaluation of LISTA to study its impact on financial knowledge and behavior. Preliminary results indicate that the LISTA tablet application has had significant impacts on financial knowledge, attitudes toward formal financial services, financial practices, and financial outcomes.

11:00-11:50 Microcredit Impact

Atrium Dining Room

Measuring the equilibrium impacts of credit: Evidence from the Indian microfinance crisis

Cynthia Kinnan with Emily Breza Working Paper

In October 2010, the state government of Andhra Pradesh, India issued an emergency ordinance, bringing microfinance activities in the state to a complete halt and causing a nation-wide shock to the liquidity of lenders, especially those lenders with loans in the affected state. The researchers use this massive dislocation in the microfinance market to identify the causal impacts of a reduction in credit supply on consumption, entrepreneurship, and employment in general equilibrium. Using a proprietary, hand-collected district-level data set from 27 separate, for-profit microlenders matched with household data from the National Sample Survey, the researchers find that district-level reductions in credit supply are associated with significant decreases in casual daily wages, household wage earnings and consumption. Landless households are affected through the fall in the wage, despite being relatively unaffected through the direct channel of reduced borrowing. Studies that focus solely on likely borrowers may miss important benefits of financial development.

The long-term impact of rural microcredit in Morocco

William Parienté with Bruno Crépon, Ralph de Haas, Florencia Devoto, and Esther Duflo

[Early Results]

This study uses new data from a randomized controlled trial in rural Morocco to evaluate the long-term effects of access to microcredit. The RCT focused on the geographical expansion of microcredit by Al Amana, the country's largest microfinance institution. The analysis in this paper builds on Crépon et al. (2015) who reported impacts two years after the introduction of microcredit. We now exploit data collected in treatment and control villages seven years after baseline. Preliminary findings suggest that, even though we are not detecting average long-term impacts of microcredit, there is important heterogeneity in returns on a number of other outcome variables. We find suggestive evidence that households that are most likely to borrow (based on ex-ante characteristics) expand their self-employment activities and generate small but positive returns. Further work will focus on the mechanisms through which access to microcredit differentially affects one-time versus repeat borrowers.

11:00-11:50 Timing of Transfers

140 Brownfield

When is it hard to make ends meet?

Jialan Wang with Brian Baugh and Jesse Leary Working Paper

The researchers analyze how predictable variation in the timing of income affects household financial health. Exploiting quasi-random variation in the disbursement of benefits by the Social Security Administration, we document that households are more likely to face financial shortfalls during 35-day versus 28-day pay periods. Households are also more likely to experience shortfalls if they have a greater mismatch between the timing of income and expenditure commitments. These patterns are difficult to reconcile with the lifecycle / permanent income hypothesis. The results suggest that policies and technologies that help consumers align the timing of their income and expenditures could improve financial health.

Income changes and economic behavior

Silvia Prina Early Results

The research team studies how expected and unexpected income changes affect low-income households' consumption smoothing and human capital investment, focusing on the role of mental health, cognition, and preferences. To do that, the researchers collected data on 3,500 recipients of PROSPERA, Mexico CCT program, randomly assigning them to be interviewed the week before or after the transfer pay date. The transfer is our expected income change. The research team uses the timing of health and employment shocks as our unexpected income change. When the research team looks at average effects, they find that the transfer pay date does not affect consumption smoothing, investment, and cognition, but it has small effects on healthy habits, depression, and risk tolerance. Conversely, the unexpected shock prevents households from smoothing consumption and worsens healthy habits and mental health, but it also does not affect cognition. However, when the research team focuses on households for whom the income changes are the largest, they find that cognitive function declines, as in Mani et al. (2013).

12:00-12:25 Improving Social Safety Net Administration

Atrium Dining Room

**Yusuf Neggers** with Eric Dodge, Charity Troyer Moore, and Rohini Pande Ongoing Study

Can small search costs that constrain information acquisition by bureaucrats provide a substantive explanation for poor bureaucratic performance in the developing world? In collaboration with the Indian Ministry of Rural Development and the state of Madhya Pradesh, the researchers conducted a field experiment in which a random sample of bureaucrats were given access to an internet- and mobile-based management and monitoring platform for wage payments associated with a workfare program (MGNREGA). The platform did not make new information available, but rather lowered costs of accessing information about the status of wage bills and officers who needed to take action. The experiment also randomly varied which level of the administrative hierarchy had access to the e-platform. The researchers find that lower costs of information acquisition significantly reduce payment processing time. Using detailed usage data, they document that both access to information and managerial oversight matter. Specifically, the researchers observe reduced payment delays only when search costs are reduced at both the intermediate and senior management levels. Further, usage rates at the intermediate management level are much higher when senior management also has access to the e-platform.

12:00-12:25 De-biasing on a Roll: Changing Lottery Behavior through Experiential Learning

140 Brownfield

\_\_\_\_\_\_

Bilal Zia with Martin Abel and Shawn Cole Working Paper

This paper tests experiential learning as a de-biasing tool against gambling behavior in South Africa. The researchers implement a simple, interactive game that simulates the odds of winning the national lottery through dice rolling. Participants roll one and two dice until they obtain simultaneous sixes and are then informed that the odds of winning the jackpot is equivalent to rolling all sixes with nine dice. Individuals who need many (few) attempts play the lottery significantly less (more) than the control group in the following year. They find suggestive evidence that the de-biasing affects sensitivity to varying winning odds. These changes cannot be explained by changes in entertainment utility or risk preferences; rather results are consistent with changes in risk beliefs.

1:30-2:45 **Savings Impact** 

Atrium Dining Room

Improving access to savings through mobile money: Experimental evidence from smallholder farmers in Mozambique

Catia Batista with Pedro Vicente and Dean Yang | Working Paper |

Investment in improved agricultural inputs is infrequent for smallholder farmers in Africa. One barrier may be limited access to formal savings. The researchers designed and conducted a field experiment in rural Mozambique that randomized access to a savings account through mobile money to a sample of smallholder farmers. All subjects were given access to mobile money and information about fertilizer use. The researchers also randomized whether closest farming friends were targeted by the same intervention. They find that the savings account increased savings, the probability of fertilizer use, and the use of other agricultural inputs. The researchers show that the savings account increased household expenditures, particularly non-frequent ones. They also suggest that the network intervention decreased social pressure to share resources and that the savings account protected farmers against this network pressure.

October 27-28, 2017 | Northwestern University

Pay me later: A simple employer-based savings scheme Lasse Brune with Eric Chyn and Jason Kerwin Early Results

For workers in developing countries with frequent paydays, purchasing durable goods is often made difficult by a lack of good savings options. We study a no-frills employer-based savings technology that piggybacks on existing payroll infrastructure to provide a safe and convenient method to save up for lumpy expenditures. Partnering with an agricultural employer in Malawi we offer workers the opportunity to defer part of their wages over a period of three months, at zero interest, to receive a lump sum payout at the end of the main season. We find that this savings scheme has high take-up, and participants save 14% of their earnings during the deferral period. Participating in the scheme causes a 24% net increase in total savings, despite some substitution away from informal savings methods. Treatment workers also increase output at work by 4.5% during the deduction period. The increased savings lead to large increases in asset accumulation: asset ownership four months after the payout rise 0.13 SDs as a result of the treatment. Interest in repeat participation is high: 78% of treatment-group workers sign up for the product again for the following season. An incentivized choice experiment shows that payout of savings in one lump sum as well as limited access during the accumulation period are desirable features for the vast majority of participants.

High hopes: Savings and the transition to high school in Kenya **Billy Jack** with James Habyarimana Working Paper

The researchers partnered with a mobile money operator in Kenya to offer a commitment savings product to parents whose children will soon be making the costly transition to high school. The product was designed to encourage individuals to save for future expenses by offering a higher interest rate on savings that are not withdrawn until a certain date. Using a randomized evaluation, the researchers assessed how this product affects financial decision making as households prepare for the expenses associated with enrolling their children in high school. As households save over the course of the study, researchers also tested if regular text message reminders to save help parents meet their savings goals. They have found sizable impacts of both accounts on savings and on the likelihood of students entering high school the following year.

1:30-2:45 **Investment Decisions** 140 Brownfield

Financial anxiety and investment decisions

Enrichetta Ravina with Paola Sapienza Concept

The objective of this project is to a) measure people's uncomfortableness and aversion toward dealing with their finances, making portfolio allocation decisions, and picking among complex financial products, which we label financial anxiety, b) document its relationship with other investor's characteristics, and c) investigate the role of financial advisors and human interactions in alleviating its effect and explore the role of robo-advisors as a vehicle to give access to financial advice and implementation to individuals with low investable assets.

So far, the researchers have developed a questionnaire to measure financial anxiety, based on the psychology literature, and they have conducted a preliminary study, in the Understanding America Survey Panel, to determine the relationship between financial anxiety and other preference parameters and individual characteristics such as risk and ambiguity aversion, financial literacy, perceived financial knowledge, and past experiences, among others. The next step is a field experiment in collaboration with a US based robo-advisor where the researchers plan to randomize access to financial advice, price, and advice delivery mode for new clients with different levels of financial anxiety, measure the effects on advisor take up, willingness to pay, and possibly investment allocations and advisor satisfaction.

Personalized information as a tool to improve pension savings: Results from a randomized control trial in Chile **Julio Riutort** with Olga Fuentes, Jeanne Lafortune, Jose Tessada, and Felix Villatoro Working Paper

The researchers randomly offer to workers in Chile personalized versus generalized information about their pension savings and forecasted pension income. Personalized information increased the probability and amounts of voluntary contributions after one year without crowding-out other forms of savings. Personalization appears to be very important: individuals who overestimated their pension at the time of the intervention saved more. Thus, a person's inability to understand how the pension system affects them may partially explain low pension savings. Despite the significant response to the intervention, its temporary nature and size suggest that information should be combined with other elements to increase its efficiency.

Reckless conservatism in retirement planning

Steve Wendel Early Results

When employers and advisors help people save and invest for the long term, they often rely on "risk tolerance questionnaires" to determine the vehicles for those savings. The researchers have a set of studies showing how this approach is misguided, and increases the chance that workers will have insufficient retirement savings. They demonstrate a goal-based behavioral solution to investing for retirement.

3:30-4:30 **Long-term results of livelihood programs** Atrium Dining Room
TBD

**Chris Blattman** 

TBD

Graduating the ultra-poor in Ethiopia: Seven-year follow-up

Dean Karlan with Nathanael Goldberg and Kelsey Wright Early Results

The Graduation Pilot in Ethiopia is one of seven randomized evaluations conducted around the world as part of the CGAP-Ford Foundation Graduation Program. These programs offer a holistic set of services designed to help ultra-poor households develop new livelihoods: a productive asset transfer (often livestock), along with training and regular coaching visits, consumption support, and savings services. Results published in Science (2015) show strong gains for program participants in income and consumption, food security, assets, savings, and mental health that were sustained one-year after the end of the program. In this session, Dean Karlan will present preliminary results from the recently completed 7-year follow-up data collection in Ethiopia (5 years after the end of the program).

## **Detailed Agenda - October 28, 2017**

TIME	SESSION	ROOM	
9:30-10:20	Cash	Atrium Dining Room	
Cash-plus: Variants and components of transfer-based poverty reduction programming  Richard SedImayr with Anuj Shah and Munshi Sulaiman Working Paper			

Can extensions such as coaching and training augment the poverty relief effects of cash transfers, or do they unnecessarily constrain the agency of recipients in the allocation of program resources? The researchers use a randomized trial to estimate the impacts of philosophically distinct variants of transfer-based poverty reduction approaches in rural Uganda. One is a microenterprise intervention in the spirit of so-called graduation programming that provides beneficiaries with an integrated package of cash transfers, coaching, and training on sustainable livelihoods; the other variant monetizes the cost of coaching and training so as to more than double the size of cash transfers. The researchers also evaluate the merits of more marginal individual extension components, involving savings group formation in the microenterprise variant and light-touch behavioral intervention (involving goal-setting and plan-making) in the cash variant.

Cash benchmarking for USAID programming in Rwanda

\*\*Andrew Zeitlin with Craig McIntosh | Early Results / Ongoing Study |

The researchers describe a series of cash-benchmarking studies underway in Rwanda. In two randomized control trials, the researchers work with GiveDirectly to provide cost-equivalent transfers to the populations targeted by USAID interventions in the areas of nutrition and WASH programming, in the first study, and vocational training, in the second. In this session, Andrew Zeitlin will present preliminary results from the first study and design considerations for the second study.

9:30-10:20 U.S. Consumer Debt 140 Brownfield

Do Prize-Linked Incentives Promote Positive Financial Behavior? Evidence from a Debt Reduction Intervention *Jeremy Burke* ongoing Study

The research team conducted the first large randomized controlled field trial in the US examining the efficacy of prize-linked incentives to promote positive financial behavior. In partnership with a non-profit credit counseling agency, the research team randomized access to a program linking debt payment with a small chance of debt forgiveness among 7,000 clients in a debt management plan. Similar to prior evidence on prize-linked savings interventions, the research team finds strong demand for the program and positive correlational effects. Program participants were more timely with their debt repayments, less likely to drop out of the program, and reduced their outstanding debt more than program non-participants. However, leveraging random assignment, the research team finds that these effects are driven almost entirely by selection. Intent-to-treat estimates reveal that those assigned to treatment were no more likely to improve debt repayment behavior than those assigned to control. Selection estimations indicate that individuals who were more likely to repay their debt at baseline were more likely to elect to participate in the program. Despite strong interest and positive correlations, prize-linked incentives may not always modify behavior and may simply reward existing behavior among those who are more likely to be financially successful.

How home equity extraction and reverse mortgages affect the credit outcomes of senior households **Samuel Dodini** with Donald Haurin, Stephanie Moulton, and Maximillian Schmeiser **Working Paper** 

This paper examines how the extraction of home equity, including but not limited to equity extracted through reverse mortgages, affects credit outcomes of senior households. The researchers use data from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel, supplemented with their unique credit panel dataset of reverse mortgage borrowers. They track credit outcomes for seniors who extracted equity through cash-out refinancing, home equity lines of credit or home equity loans between 2008 and 2011, and a random sample of non-extractors. The researchers estimate differences-in-differences by extraction channel using individual fixed effects panel regression. They find that seniors extracting equity through reverse mortgages have greater reductions in consumer debt, and are less likely to become delinquent or foreclose three years post origination relative to other extractors and non-extractors. These effects are greater among households who experienced a credit shock within the two years prior to loan origination. The researchers also re-estimate their models with a matched sample of consumers and find that otherwise similar HECM borrowers have larger reductions in credit card debt post-extraction than other equity borrowers and non-borrowers, with no significant difference in the rates of delinquency on non-housing debt post extraction. For HECM borrowers, they find that increased initial withdrawal and increased monthly cash flow contribute to the reduction in credit card debt.

11:00-11:50 **Student Loans** Atrium Dining Room

Does access to FICO Scores influence financial behavior? Evidence from a field experiment with student loan borrowers

\*\*Rourke O'Brien with Abigail Sussman and Tatiana Homonoff\*\*

\*\*Working Paper\*\*

\*\*The Control of The Control of

This study evaluates the impact of providing access to FICO scores on financial knowledge and behavior through a field experiment with over 400,000 student loan borrowers where we randomize provision of information on the availability of the score. Evidence from administrative credit report data finds borrowers in the treatment group are less likely to have any payments past due, more likely to have at least one revolving credit account, and have higher FICO scores after nine months. These effects persist over the full study period (21 months), even among a subgroup of borrowers whose communications are discontinued. We complement findings from our administrative data with a financial literacy survey of a subset of these student loan borrowers. We find no difference in general financial knowledge across treatment conditions, but find that treatment group members were less likely to overestimate their score. These results suggest that the intervention may have led borrowers to calibrate their financial health and take actions to improve it. We argue that the unique characteristics of the FICO score—a personalized, quantifiable, dynamic metric that responds to consumer behavior—may be more effective at motivating change than other information based interventions.

Earnings expectations, behavioral biases, and the design of student loan repayment schemes Lesley Turner with Katharine Abraham, Emel Filiz-Ozbay, and Erkut Ozbay Working Paper

Growing student loan debt, delinquency, and defaults have stimulated proposals to expand income-driven repayment (IDR) plans that link loan payments to borrowers' earnings. Despite the advantages many borrowers would receive from participating in current IDR options, take-up remains low. This project investigates factors affecting borrowers' loan repayment choices. In a survey of University of Maryland undergraduates, the researchers elicit students' expectations of future labor market outcomes and assess their preferences for income-driven repayment by presenting scenarios in which both the percentage of income that payments represent and the framing of IDR are randomly assigned. The researchers focus on how the framing of the two key features that distinguish income-driven schemes – protection from unaffordable loan payments in periods of low earnings versus potentially higher costs over the life of the loan – affects students' stated preferences. Students are significantly more likely to choose IDR when the insurance aspect of the plan is emphasized and significantly less likely to prefer IDR when the length of repayment and total interest paid are highlighted. IDR framing also interacts with expected labor market outcomes. Emphasizing the insurance aspect of IDR has larger effects on students who anticipate a higher probability of not being employed and/or low earnings after graduation. In contrast, when IDR costs are emphasized, students' preferences for IDR are uncorrelated with expected labor market outcomes.

October 27-28, 2017 | Northwestern University

11:00-11:50 **Credit Product Design**  140 Brownfield

Knowing what's good for you: Can a repayment flexibility option in microfinance contracts improve repayment rates and business outcomes?

Giorgia Barboni with Parul Agarwal Working Paper

Repayment flexibility in microfinance contracts can enable clients to undertake higher return projects that have more irregular payment streams. But there is the risk of increased default due to time-inconsistent or excessively risky borrower behavior. How severe is this default risk and can it be mitigated simply by using contract price as a screening mechanism? To examine this, we implement a randomized experiment with microfinance borrowers in Uttar Pradesh, India. In treated branches, borrowers select between the standard, rigid contract and a more expensive flexible contract. In control branches, customers are only offered the standard rigid contract. Clients in treated branches have higher repayment rates than control branches. We also find higher business sales, in treatment compared to control group. Selection is an important mechanism - in treated branches, time-consistent and more financially disciplined borrowers are significantly more likely to opt for the flexible repayment schedule.

Borrow or not to borrow: Religious norms and the elasticity of demand for credit **Adam Osman** with Dean Karlan and Nour Shammout Working Paper

Low utilization of credit in developing countries may be partially due to societal norms. The researchers consider one such case in Jordan and compare the demand for a new, sharia-compliant product to a non-compliant product. To comply with the Islamic prohibition on paying or receiving interest, the sharia-compliant product uses a bank fee rather than interest payment structure, while keeping the economics of the product the same as a comparable conventional loan. The researchers find that in this largely Muslim country, consumers offered a shariacompliant loan increase their application rate from 18% to 22%. They also randomly varied the price of the sharia-compliant product, and find that the less religious individuals in our sample are twice as elastic with respect to price as those who are more religious. They find no evidence of differences between those who apply for the conventional loan and those that apply for the sharia-compliant loan on observable demographics, suggesting that this new product successfully increases utilization of formal financial services without necessarily pulling in more risky individuals.

12:00-12:25

Impact and Spillover Effects of an Asset Transfer Program on Child Malnutrition: Evidence from a Randomized Control Trial in Bangladesh

Atrium Dining Room

Wameq Raza Working Paper

Evidence shows that ultra-poor households are typically precluded from mainstream poverty alleviation programs. In response, an integrated program (Targeting the Ultra-Poor (TUP)) was implemented targeting those living below \$0.60-\$0.70/day in Bangladesh by BRAC. The innovative scheme combines income generating assets, multifaceted training on entrepreneurial activities, health, nutrition, social and political awareness training over a two-year period. Several papers have established the positive impact of the program on various socioeconomic indicators of participants and the positive spill-overs to non-participants. This is the first paper to evaluate the effects of TUP on nutritional outcomes of under-5 children using data from a randomized control trial covering 26,997 households over a four-year period. We find significant reductions in the prevalence of wasting and underweight among children in both participant and poor non-participant households. Increased duration of exclusive breastfeeding, and utilization of preventive services (vitamin A supplements) appear to be important drivers of these improvements. No effects were found on children from non-poor households, suggesting that behavioral changes are more likely to be restricted to groups of similar socioeconomic status. We conclude that programs such as the TUP have the potential to positively affect the health status and contribute to the program's long-term cost-effectiveness.

12:00-12:25

# Picture-Based Insurance: Leveraging farmers' smartphone ownership to strengthen agricultural crop insurance

140 Brownfield

**Berber Kramer** with Francisco Ceballos, Koen Hufkens, Siddhesh Karekar, Matthew Krupoff, Michael Mann, Eli Melaas, Azad Mishra, Miguel Robles, Mann S. Toor Working Paper

This study assesses the feasibility and economic viability of picture-based insurance (PBI). PBI reduces costs of loss assessment by using georeferenced smartphone pictures of insured crops, uploaded by farmers through a smartphone app on a regular basis from sowing to harvest. PBI can reduce basis risk compared to other index insurance products by assessing losses at the individual plot level, by focusing on multi-peril risks as opposed to a single index, and by directly observing the growth stage of the crop at the time of extreme weather events. In this way, the product combines key advantages of index-based insurance – timely compensation without expensive loss assessments – and indemnity insurance – minimum basis risk. This, however, raises the question whether indeed basis risk is reduced, and whether the approach is not subject to incentive problems related to information asymmetries that have plagued traditional multi-peril insurance products. Based on a formative evaluation of a PBI product in Haryana and Punjab, we find that estimated damage based on pictures are correlated with farmers' actual yields and self-reported damage and that the PBI product helps reduce basis risk. Further, PBI increases demand for crop insurance, without inducing moral hazard or adverse selection.

1:30-2:30 **Targeting** 

Atrium Dining Room

Using Lean Data to Identify Poor Households: A Statistical Learning Approach

Varun Kshirsagar Stage

This paper describes a method that may be used to identify poor households in data-scarce countries by leveraging information contained in nationally representative household surveys. It employs standard statistical learning techniques --- cross-validation and parameter regularization --- which together reduce the extent to which the model is over-fitted to match the idiosyncrasies of a particular survey. The framework, which is easily automated, satisfies three constraints: i) The prediction model uses information contained in ten questions, which limits the costs of data collection; ii) It is easy to calculate the probability that a given household is poor, immediately after data on the ten indicators is collected; and iii) One specification of the model (i.e. one scorecard) is used to predict poverty in countries that may be characterized by significant sub-national differences. Using survey data from Uganda, the model outperforms standard out-of-sample prediction benchmarks as well as traditional econometric approaches to poverty targeting.

Targeting High Ability Entrepreneurs Using Community Information: Mechanism Design in The Field **Natalia Rigol** with Benjamin Roth and Reshmaan Hussam working Paper

Alleviating credit constraints for microentrepreneurs remains one of the most important challenges in development. But in poorly developed financial markets, the cost of assessing credit worthiness often makes lending to this sector unprofitable. In this paper, the researchers show that community knowledge can help overcome information asymmetries. They asked entrepreneurs in Maharashtra, India to rank their peers on metrics of business profitability and growth potential. To assess the validity of their reports, the researchers then randomly distributed cash grants of USD100 to a third of these entrepreneurs. They find that information provided by community members is highly predictive of the marginal return to capital: entrepreneurs ranked in the top tercile earn returns of 23% per month, which is three times the average return within the sample. The researchers horserace community rankings against a machine learning prediction and find that while both select high-performing entrepreneurs, peer reports are predictive over and above information that is captured by (optimally combined) observables. But peer information is only useful if it feasible to collect truthful statements. The researchers experimentally vary the elicitation environment to demonstrate agency problems when community members have incentive to misreport. They conclude by demonstrating how mechanism design tools can be used to address these agency problems: monetary payments for accuracy, public reporting, and cross-reporting techniques motivated by implementation theory all significantly improve the accuracy of peer reports.

#### **About IPA's Researcher Gathering**

Innovations for Poverty Action (IPA), with co-organizer the Buffett Institute's Global Poverty Research Lab (GPRL), is hosting its Third Annual Researcher Gathering to bring together researchers in financial inclusion and social protection for a two-day event at Northwestern University. We'll meet to informally discuss research in financial inclusion and household finance in the United States and around the world, as well as share new research on social safety nets, cash transfers, targeting, and livelihood development.

Each session will feature one to three presenters who will speak for 15 minutes about their early results and recent working papers in addition to new research or product ideas. IPA's Financial Inclusion and Social Protection teams will facilitate a discussion on the research presented in each session.

#### **Dates**

October 27, 2017 9:00 AM – 5:00 PM CDT October 28, 2017 9:00 AM – 3:00 PM CDT

#### Location

James L. Allen Center at 2169 Campus Drive, Evanston, IL 60208