RESEARCH REVIEW 2021



The Institute for Economic Development (IED) is a research center within Boston University's Department of Economics focusing on development economics and related fields of finance, trade, foreign investment, health, education, political economy, organizations and economic history.



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SYMPOSIUM IN HONOR OF GUSTAV PAPANEK, OCTOBER 2021



GUS PAPANEK, P.K. KAUL (INDIA'S AMBASSADOR), DON KENDALL (CEO OF PEPSICO), AND BOB LUCAS, AT A CONFERENCE ON THE INDIAN ECONOMY HELD AT BU IN 1985-86.

The Economics Department and the Institute for Economic Development organized a day-long Zoom symposium in October 2020 to honor Professor Gustav Papanek, a distinguished development economist who led the Economics Department during a pivotal period of transformation from 1974 to 1983. Many of our alumni who overlapped with Gus will recognize the changes that were taking place in the Department during this time and others may be interested in the historical foundations of the current Department.

Gus Papanek saw considerable political injustice early in his life, which shaped his commitment to social justice and his interest in the challenges posed for the development of poor economies. Gus was born in Vienna in 1926 and grew up at a time when the Nazis were seizing power in Austria and elsewhere. His father was a child psychologist and a politically-active socialist who organized the escape of substantial numbers of Austrian families and children until his own family had to flee to France just before the onset of World War II. After the Nazi invasion of France, the Papanek family fled again to Spain with the help of the underground and then on to New York City. Gus was too young to fight in World War II, but he later served with the U.S. military to identify SS officers at the time of the Nuremberg trials. Gus recently recalled that many of these officers denied ever being in the SS, but he also realized that they were

exceedingly proud and had probably wanted photos of themselves in uniform. He began going through the records of local photographers and was successful in making a large number of identifications.

Gus returned to the United States to study agricultural economics at Cornell and went on to earn his PhD in Economics at Harvard. The development faculty at Harvard had a reputation for valuing policy advising and work experience in government as well as academic achievement. Gus followed that model by joining the State Department as Deputy Chief of Program and Planning for South and South East Asia following the completion of his PhD. This policy position, however, ended abruptly in 1953 when the McCarthy Committee investigating left-wing influences in the State Department equated Gus's democratic socialist politics with his being a member of the communist party.

Gus then returned to academia by joining Harvard's Development Advisory Service (DAS). His first assignment was to lead the team that helped Pakistan develop policies for transforming its economy from an agrarian to an industrial base. Pakistan was short on economists and Gus's arrival in Pakistan was met by a delegation of cabinet ministers waiting on the runway to welcome a distinguished development economist from Harvard. He recounts, however, that they were surprised and confused by his youthful appearance and asked, "When is your father arriving?" From that moment on, Gus built a long-standing relationship with the Pakistan government where he came to know both Prime Minister Zulfikar Bhutto and his daughter, Benazir, who also served as Prime Minister.

Gus's team was successful in boosting the Pakistan economy and he went on to become Director of the DAS where he taught mid-career government officials and expanded his research and policy-advising portfolio to include other countries in south Asia and elsewhere. His reputation as both an imaginative development economist with strong ties to Asia and an astute administrator made him the leading candidate for position as chair of the Department of

Economics at Boston University, a job that came with a mandate for building a world-class economics program focusing on the U.S. and the world's three major developing regions. When John Silber (then President of Boston University) and Professor Paul Rosenstein-Rodan (one of the founders of Development Economics who had recently come to BU to head a Center for Latin American Development Studies) offered Gus the opportunity to lead the Economics Department and recruit additional experienced young faculty from places like Harvard, MIT, Princeton, Michigan, and UCLA, he accepted with enthusiasm.

As Department chair, Gus set about hiring new faculty, securing new funding sources for enlarging the graduate program, and making economics one of the most popular undergraduate majors. Perhaps his most novel contribution was to create a unique PhD program in economics aimed largely at students interested in playing a major part in policy formation in their own countries or on the global stage. This initiative was matched with a policy-oriented MA program offering recent college graduates an edge in launching their careers and providing a skills upgrade for mid-career students with more experience. In those days, this was a niche market with only one or two competitor universities. Many of these students have gone on to distinguished careers including governors of central banks, secretaries of finance, key advisors to heads of state, a secretary of defense, a vice president of the Asian Development Bank, and an ambassador.

Equally important was the jump in research productivity that came with the infusion of new faculty. Building on the strengths of the faculty and the presence of economics-related regional centers, the department's research output and reputation steadily increased under Gus's leadership.

Many of the Department's funded research projects provided financial support and valuable field experience for the growing body of PhD students. One of the earliest research projects was on industrial and trade policy in Bangladesh, which was carried out by Gus and a team of four Bangladeshi PhD students and three other faculty members. In 1980, Bangladesh had no garment industry and the recommendations of the BU team provided the framework for launching a new infant industry. By 2019, garment exports accounted for 84% of Bangladesh's exports and the industry had become a major source of industrial jobs for women. One of the Bangladeshi students involved in the project, Mohammed Farashuddin, later went on to become Governor of the central bank of Bangladesh and another student, Azizul Islam, became Chairman of the Bangladesh Securities and Exchange Commission.

This project also had a lasting impact on BU's reputation for policy research. A couple of years ago, one of our current colleagues was in a meeting with the Finance Minister and several garment entrepreneurs to discuss a potential research project in Bangladesh. When the garment employers complained that the research would be a waste of time, the Finance Minister countered by pointing out that their businesses would not have existed without the earlier BU research project.

In addition to leading the Department, Gus also established and directed the Center for Asian Development Studies (CADS). Gus set ambitious goals for CADS and helped it realize significant achievements including the launching of a Public Enterprise Program, bringing noteworthy policymakers to the University and conducting research projects with significant policy impact. For example, when Indian Prime Minister Indira Gandhi and U.S. President

Ronald Reagan agreed to launch The Festival of India to take place in 1985-86, Gus persuaded USAID to fund a companion conference on the Indian economy to be held at Boston University under the auspices of CADS. The conference became a star-studded event that attracted the Indian Ambassador to the U.S. (P.K. Kaul), Ken Galbraith (Gus's PhD dissertation advisor and former U.S. Ambassador to India), Montek Singh (a key figure in India's economic reforms), Don Kendall (CEO of PepsiCo), and many other VIPs. The well-informed and lively discussion was applauded as a great success by both the U.S. and India.

Gus left a rich and varied legacy for the Department when he retired from BU in 1992. In retrospect, Gus says that what he values most from his time at BU are the accomplishments of his students. These alumni and alumni rank among Gus's strongest and most enthusiastic supporters and were the inspiration for the October symposium celebrating his lifelong achievements in teaching, research, and policy-advising. The universal sentiment among the participants at the symposium was succinctly captured by Rahul Khullar who served as India's Secretary of Finance and of Commerce and later as Chairman of India's Telecom Regulatory Authority, and who recently passed away. On accepting the invitation to participate in the symposium, Rahul wrote "I owe BU and Gus a lot, more than can be said in words".

2ND ANNUAL PAUL STREETEN DISTINGUISHED LECTURE IN GLOBAL DEVELOPMENT POLICY



DEAN ANN E. HARRISON HAAS SCHOOL OF BUSINESS AT THE UNIVERSITY OF CALIFORNIA, BERKELEY

Dean Ann E. Harrison of the Haas School of Business at the University of California, Berkeley was .this year's lecturer who presented her paper titled "Don't Be Afraid to Compete: The Role of Industrial Policy in Global

Development" to a virtual audience on March 3, 2021

The annual Paul Streeten Distinguished Lecture in Global Development Policy is jointly sponsored by the Department of Economics, the Institute for Economic Development, and the Pardee School's Global Policy Development Center to celebrate the legacy of Economics Professor Paul Streeten, an eminent development economist and interdisciplinary scholar who has had a significant impact on global development policy. This year's Streeten Lecturer was Professor Ann Harrison, Dean of Berkeley's Haas School of Business, who has a long record of prize-winning and policy-relevant research.

Professor Harrison spoke about the historic debates over the role for the state versus the market, tracing back to the age of Louis XIV. She argues that free enterprise and competition can foster great innovation but that the unfettered state has also been host to many excesses. The challenge is to find the right balance between free markets and state-supported industrial policy.

Turning to the more modern experience of industrial policy in developing economies, she summarized the literature on comparative advantage, drawing heavily on her own research in China and India. The Chinese example illustrated the importance of fostering scale economies within firms to create growing production capacity and employment at efficient scale while concurrently enhancing domestic competition by subsidizing clusters of firms within specific industries as sources of comparative advantage. In short, the potential market failures from subsidizing large firms with market power can be offset by policies that encourage competition among these firms. By comparison, an example of counterproductive industrial policy is India's program for giving preferential market treatment to small and medium-size firms. SME-based growth failed to achieve efficient production scale while also penalizing large firms. When this industrial policy was abandoned, newer, larger, and more efficient firms entered these markets and generated substantial growth in output and employment, and there was sufficient domestic and international competition to limit the exercise of market power.

The takeaway from this analysis is that neither industrial policy nor the invisible hand of markets can by themselves produce the best results for growth. Instead, they must be combined to ensure that the efficiencies of scale economies and market externalities can be secured. This means correctly identifying the positive externalities (such as scale and agglomeration economies) to be promoted and negative externalities (such as pollution) to be penalized; choosing the right industrial policy instruments for addressing these externalities; and ensuring sufficient domestic and global competition to prevent rent-seeking behavior.

IED VISITORS AND FACULTY AFFILIATE NEWS

IED Affiliate Awarded Wins APSA Prize

Assistant Professor of Global Development Policy at the Fredrick S. Pardee School of Global Studies and IED faculty affiliate, Rachel Brulé has been awarded the American Political Science Association's (APSA) Luppert Prize for the best book in comparative politics for her book *Women, Power, and Property: The Paradox of Gender Equality Laws in India.*

BILGE ERTEN Associate Professor of Economics and International Affairs

Bilge Erten is an Associate Professor of Economics and International Affairs and a Faculty Scholar at the Institute for Health Equity and Social Justice Research at Northeastern University. She will be a Visiting Scholar at the Institute for Economic Development (IED) from September 2021-August 2022. Her research interests lie in development economics, with a focus on gender, health and education. Most of her recent work explores the causes and consequences of domestic violence and mental health conditions in developing countries. Recent projects focus on how COVID-19 lockdowns affect the risk of mental distress among older adults in Turkey, and how lockdowns across states in the U.S. influence the reporting of domestic violence to the police. Bilge is an Associate Editor at Feminist Economics, and Research Fellow at the Institute for the Study of Labor (IZA). Her work has been featured in the Financial Times, the Huffington Post, the Bloomberg View, the NPR Marketplace, and the Western Producer. Prior to joining Northeastern faculty, she was a postdoctoral research scholar of the Committee on Global Thought at Columbia University. She received her PhD in Economics from the University of Massachusetts AmherstBilge is an Associate Editor at Feminist Economics. She is also a Research Fellow at the Institute for the Study of Labor (IZA).





AJAY SHENOY Associate Professor of Economics

Ajay Shenoy is an Associate Professor of Economics at University of California, Santa Cruz. His research interests include development, growth, and political economy. Ajay will be a Visiting Scholar at the Institute for Economic Development from September 2021- December 2021. He presented his paper titled "The Workforce of Clientelism: The Case of Local Officials in Party Machine" at the IED Seminar on September 13th, 2021. His presentation can be found here:

https://people.ucsc.edu/~azshenoy/files/wb_permlink.pdf

IED SPONSORED CONFERENCES

THEORETICAL RESEARCH IN DEVELOPMENT ECONOMICS (THRED)

IED hosted two successive annual conferences of ThReD (Theoretical Research in Development Economics, http://thred.devecon.org), a research network dedicated to the creation as well as application of economic theory to development problems. Since its inception in 2007, ThReD has been hosting conferences in various countries, besides maintaining a working paper collection and pooling useful teaching resources. IED faculty affiliates Dilip Mookherjee and Andy Newman, two of the original co-founders of ThReD, continue to serve on the core committee. With the onset of the covid crisis since April 2020, the in-person annual conferences could not be held. IED stepped in to host the annual 2020 and 2021 conferences as fully remote events on October 29-31, 2020 and June 17-19, 2021. The two conferences featured twelve and nine paper presentations, selected by core committee members from a large number of papers submitted in an open call. The papers covered a wide set of areas, ranging from the covid crisis, supply chains, informal credit, microcredit, labor markets, networks, social norms, gender discrimination to political economy, social identity, culture and institutions.

One advantage of the remote format was the remarkable increase in attendance from diverse parts of the world, with over 300 economists participating in each event. Moreover, videos of the proceedings were posted online, thus allowing an unprecedented increase in dissemination of the conference proceedings — the relevant links are available at the ThReD website given above.

SOCIETY OF THE ECONOMICS OF THE HOUSEHOLD (SEHO)

On May 24-25, 2021, Boston University hosted virtually the Annual Meeting of the Society of the Economics of the Household, with the generous support of the Institute for Economic Development. The conference organizers were Daniele Paserman of Boston University and Elena Stancanelli of the Paris School of Economics. Economics of the household is defined as the economic analysis of household decisions, including decisions regarding consumption, labor supply and other uses of time, household formation and dissolution, demand for health and other forms of human capital, fertility

Summary The pandemic recession is a shecession (almost) everywhere. Industry/occupation and childcare needs are the main (but not the only) explanations. Policies such as furloughing schemes matter a lot. Ability to work from home greatly mitigates impact of pandemic on working women. All of this ... → ... matters for shape of recession and recovery. → ... matters for evolution of gender equality in the labor market.

MATTHIAS DOEPKE IN HIS KEYNOTE TALK.

and investment in children's human capital, demand for environmental and other public goods, migration, demand for religiosity, and decisions by agricultural households

The conference was a resounding success, with more than 260 participants from 34 different countries. In a post-conference survey, more than 90% of respondents said they were satisfied or very satisfied with conference content, and 93% answered that they would recommend attending SEHO to others.

The conference included 36 parallel sessions (on topics including fertility, gender norms, parental investments, health, macroeconomics, economic policies and many more); 2 poster sessions; networking tables in which junior participants had the opportunity to interact with senior researchers and others in their subfield; and many additional opportunities for informal interactions. The two keynote speakers were Professor Sandra Black of Columbia University, who gave a talk titled "Where Does Wealth Come From?"; and Professor Matthias Doepke of Northwestern University, who gave a talk titled "Women's Employment and the Intrahousehold Division of Labor in the Pandemic Recession."

Special thanks go to Marissa Renzi, Samantha Levine and all the team of BU Events and Conferences for setting up the conference website and dealing with all the technical aspects of the organization; Kelly Benkert of IED, and BU Ph.D. students Luwen Mai and Corinne Stephenson, who helped set up the virtual platform for informal interactions; and all the other BU students who helped out with moderating the parallel sections: Hanna Schwank, Xuchao Gao, Naeyon Lim, Lei Ma, Pablo Guzman, Joe Simmons, Cesar Garro-Marín, Liqun Zhuge, Gerard Domènech and Vittoria Dicandia. And a special thanks to Qingyuan Chai, who lent a critical hand in the organization of the conference.

TRADE CONFERENCE

IED faculty affiliates Stefania Garetto, Yuhei Miyauchi and Natalia Ramondo organized two mini-onlineconferences on international trade on April 2, 2021 and April 23, 2021. Three external speakers from various institutions were featured on each day. Each presenter presented their latest research, followed by extensive discussions among participants. During lunch breaks, BU's faculty and students interacted with external speakers and exchanged research ideas. There were approximately 20 participants each day including faculty, Ph.D and Masters students.

Presenters on 4/2

Ezra Oberfield (Princeton) "Plants in Space"

Jonathan Dingel (Chicago Booth) "Spatial Economics for Granular Settings"

Eliza Giannone (Penn State) "Unpacking Moving"

Presenters on 4/23

Davin Chor (Dartmouth): "Contracting Frictions in Global Sourcing: Implications for Welfare"



A POSTER SESSION.

Monica Morlacco (USC): "Two-Sided Market Power in Firm-to-Firm Trade"

Felix Tintelnot (Chicago): "Who Benefits from Foreign Demand Shocks?"

2020-2021 IED Working Paper Summaries

COUNTRY RISK

By Tarek A. Hassan and Markus Schwedele IED Working Paper 359

Conventional wisdom among researchers and policymakers points to global perceptions of risk as major drivers of international capital flows, financial contagion, and sudden stops, while business leaders frequently cite crises in foreign markets as determining investment and employment decisions. Though discussions of country risk are pervasive, little has been done to quantify global risk perceptions and measure their effects. The authors re-examine this conventional wisdom systematically, finding country risk to be a substantively important determinant of asset prices, capital flows, and exchange rates. Countries with elevated risk see reduction in firm-level investment and employment, and such risks can transmit across borders according to a gravity structure.

To measure country risk, the authors apply natural language processing to over 300,000 conference calls and transcripts of publicly listed firms from 82 countries which collectively amount to over 90% of world GDP. The authors identify mentions of risk, uncertainty, and related terms in association with mentions of specific countries. They also capture measures of positive or negative sentiment related to countries in order to isolate risk from expected poor economic performance. They train their model using The Economist's Intelligence Unit's country reports. Qualitative evidence shows, as expected, that risk stems from political crises, war, and natural disasters, as well as subtler causes such as uncertainty over regulations and taxation.

A one standard deviation increase in a country's risk is associated with a 1.1 percentage point drop in capital inflows, an effect that persists even after accounting for the country's GDP and risk around the world. The opinions of both foreign and domestic actors appear to drive this effect. Similarly, domestic firms contract both investment and employment when their country is classified as risky by foreign firms, even accounting for the net uncertainty faced by such domestic firms.

Surprisingly, the risk level of a firm's home country contributes to the net risk level it faces just as much as the risk level of countries it relies on, indicating a high level of "transmission risk". A one standard deviation increase in this measure is associated with a 6.5 percent drop in investment. Transmission risk often reflects unexpected relationships between countries not accounted for by supplier relationships or asset holdings.

Finally, the authors show risk is an important determinant of exchange rates. Currencies that depreciate in response to global risk have significantly higher nominal exchange rates, and global risk leads to a significant strengthening of safe harbor currencies such as the dollar and yen. Conventional wisdom holds up to scrutiny: perceptions of country risk are significant in determining the economic conditions of nations.

THE IMMIGRANT NEXT DOOR: EXPOSURE, PREJUDICE, AND ALTRUISM

By Leonardo Bursztyn and Thomas Chaney and Tarek A. Hassan and Aakaash Rao

IED Working Paper 358

Does long-term exposure to individuals of a given foreign ancestry change natives' attitudes and political preferences towards that group? Existing research on a variety of stylized contexts reveals disagreement over whether exposure to an out-group causes more or less empathy, and sheds little light on the effect of such exposure in "day-to-day" setting over the long term. The authors resolve this gap in the literature by studying long-run exposure to immigrants and minority groups in the US. Exposure reduces explicit and implicit prejudice, reduces support for hostile policies, and increases altruism.

The authors place special attention to Americans' views towards Arab-Muslims, a population greatly affected by both discrimination and hostile government policies. To measure attitudes, the authors use large existing datasets of both implicit and explicit prejudice against Arab-Muslims, as well as representative opinion on voting behavior and support for President Trump's "Muslim Ban". To measure revealed preference the authors use donation flows to Arab countries from the donation lists of two major charitable organizations. To give causal interpretation to findings, the authors build on an existing model of migration decisions to isolate causes of Arab-Muslim population share at the countylevel that are plausibly independent from the outcomes.

A roughly one standard deviation increase in the Arab ancestry in a US county causes a statistically significant .27 standard deviation increase in positive feelings towards Arab-Muslims. Similarly, the same increase in the Arab ancestry of a county reduces the likelihood an individual supports the Muslim Ban by 10% and leads to significantly higher donations to Arab countries. These results are not driven by either selective Arab-Muslim migration into friendly counties nor "white flight" away from Arab-Muslim populations.

To understand the mechanisms behind these effects, the authors conduct a large-scale survey, asking White non-Muslim respondents born in the US about their contact with Arab-Muslims as well as knowledge of Arab-Muslims and Islam in general. Both these mechanisms likely contribute to the observed greater empathy towards Arab-Muslims.

Using the same identification strategy and data on charitable giving, the authors expand their analysis to the effect of exposure to immigrants from countries around the world on charity flows, finding exposure to immigrants from a country increases charitable donations to that country at both the intensive and extensive margins.

U.S. Immigration Enforcement and Mexican Labor Markets

By Thomas Pearson

IED Working Paper 363

In 2009, the US began a staggered rollout of the Secure Communities (SC) program, increasing deportations of Mexican immigrants. While previous deportation programs focused on Mexicans with criminal convictions, SC placed increased focus on undocumented immigrants at large. The author analyzes the halting rollout of the SC program to understand the effects return migrants have on the labor markets of communities they enter.

The author uses a Bartik shift-share to instrument the number of return migrants leaving the US and entering a community in Mexico. They calculate the total "deportee shock" of a municipality as the sum of its deportee shocks from each US state, normalized by the municipality's population. The author shows Mexican municipalities varied in the US destination states of their emigrants and such destinations were conditionally uncorrelated with local economic conditions. Furthermore, the author shows SC deportations meaningfully increased total return migration rates, which includes deportations

directly as well as migrations due to the increased risk of deportation. A one standard deviation in SC enforcement increased the return migration rate 34%. In sum, the author is well equipped to causally examine the labor market effects of return migrants.

The extra return migrants caused by SC deportations were younger and more male than comparable return migrants. When they returned to Mexico, the return migrants crowded out labor market opportunities for less-educated local men and women. A onestandard deviation in SC enforcement decreased less educated men's incomes by 6%, and less educated women's incomes by 2.3%. The increased labor market competition in the short run led to increased emigration out of affected communities, both to the US and elsewhere within Mexico, in the long run. As a consequence, the effect on incomes largely dissipated after 5 years.

Contrary to conventional wisdom, the author also finds deportation exposure increased the share of households receiving remittances, indicating labor market competition, not remittances, is the primary cause of lower observed incomes in the short run.

Finally, the author shows negative effects on locals' wages were weaker in Mexican municipalities with better access to the financial sector, better capital market integration, and lower transportation costs. Underdevelopment may exacerbate the negative short-run effects of labor supply shocks, and motivates further study on the relationship between local economic conditions and the market impacts of migration flows.

NOT A TYPICAL FIRM: THE JOINT DYNAMICS OF FIRMS, LABOR SHARES, AND CAPITAL-LABOR SUBSTITUTION

By Joachim Hubmer and Pascual Restrepo

IED Working Paper 361

After being stable throughout much of the last century, the US labor share has declined drastically in the last 40 years. The large aggregate decline is well known, but masks heterogeneity across the economy: while large, high-performing firms saw a steep decline in the share of value added accrued to labor, the median in the US saw their labor share increase throughout the period. The authors build a structural model of the US economy to explain this unequal decline in the labor share.

The authors use a standard firm-dynamics model

and augment it to include the decision to automate. Importantly, large productive firms make costly upfront investments to adopt the capital-intensive technologies required for automating tasks, an assumption motivated by observed heterogeneous adoption of robots, dedicated machinery, and specialized software. The median firm, however, cannot afford to automate tasks, and continues to use labor-intensive technology.

Next, the authors expand their model to account for market power and competition, finding increased competition leads to more market concentration in top, capital-intensive, firms, and thus a decline in the labor share. The authors benchmark the strength of both their capital cost and market concentration mechanisms by calibrating the model to aggregate moments. Through a variance decomposition, the authors find the declining price of capital more important in explaining the lower labor share in manufacturing, but competition and market concentration more important in the declining labor share in the retail sector.

Finally, the authors turn to firm-level data from Compustat to test their model with individual production functions and markups. As predicted, over time, the production processes of the largest firms became less labor intensive, but no such change exists for smaller firms. Meanwhile, re-allocation towards high-markup firms plays an important role in the decline of the labor share for nonmanufacturing firms, confirming aggregate calibrations of the model. Fixed costs of technology adoption and the decisions of high markup firms to automate are crucial in explaining the unequal decline in the labor share, but the strength of each mechanism varies across industries.

Clientelistic Politics and Pro-Poor Targeting: Rules versus Discretionary Budgets

By Dilip Mookherjee and Anusha Nath

IED Working Paper 360

Good governance requires delivering welfare benefits to those most in need. To do this, governments need accurate information about the poverty rates of different regions, households within those regions, as well as the incentive to prioritize the needy. In India, a large body of work emphasizes the lack of accountability and perverse political incentives of local government officials, who have large leeway in the distribution of benefits both across regions and across households within a given region.

In this paper, the authors show such discretionary

distribution of benefits need not result in regressive targeting either across or within regions. Furthermore, the adoption of a formula-based distribution of welfare, as proposed by the State Finance Commission (SFC), may even hurt the poor because of limited availability of data used by state governments to allocate program grants to local governments.

Using a panel household survey in West Bengal spanning 1998 to 2008, the authors construct a household poverty index based on land ownership, education, and caste, and use this to classify households into four categories of the extent of poverty. At the local level of gram panchayats (GPs), the within-GP targeting pattern for anti-poverty programs reveals a clear bias in favor of poor households, though a non-trivial fraction of benefits were delivered to non-poor households. At the regional level, the allocation of program funds across GPs was also progressive.

The authors contextualize these results though existing models of political clientelism. Because the poor benefit more in relative terms from a welfare program, they are more likely to reward governments who provide them with private goods, leading to pro-poor redistribution. The authors confirm this result using data from a 2011 simulated ballot experiment.

Next, the authors compare the distribution of benefits observed historically with a counterfactual in which benefits are allocated based on criteria used by the West Bengal SFC to recommend program grants to GPs. Using the detailed panel data on actual poverty from the household surveys, the authors estimate the impacts of the counterfactual budgeting formula on targeting. They find that the poor would either be the same or worse off under the formula-based system, depending on the method of budget-balancing used in simulations. This result does not change when alternative formulas (based on the same underlying SFC criteria) are considered, or when the formula is applied not only to allocate program grants within districts, but also across GPs in the entire state.

These results highlight the informational trade-offs inherent in a transition to centralized budgeting. Governments need to use more detailed criteria to assign welfare benefits and must fine-tune formulas to better match observed poverty rates from disaggregated sources.

FIRM-EMBEDDED PRODUCTIVITY AND CROSS-COUNTRY INCOME DIFFERENCES

By Vanessa Alviarez and Javier Cravino and Natalia Ramondo

IED Working Paper 357

Half of differences in income per capita across countries can be attributed to differences in Total Factor Productivity (TFP), and there is growing awareness among policymakers and economists that a portion of TFP is firm-specific, exemplified by blueprints, management practices, and other intangible capital. Yet the importance of firm-level productivity has not yet been quantified. The authors use firm-level data from Europe (including Eastern Europe), Japan, Korea, and Mexico to show cross-country differences in firmembedded productivity account for one-third of the observed differences in output per-worker.

The authors develop a framework rooted in development accounting to construct a measure of firm-embedded productivity, with a particular focus on the cross border operations of multinational enterprises. In their framework, such firms have a unique level of productivity that imperfectly transfers to operations across the world. Firms operating in a given destination country share a location-embedded productivity as well, allowing the authors to decompose a country's TFP into firm-embedded and country-wide factors. Using their framework, the authors show market shares of multinational firms can reveal firm and country-level productivities. Countries with a higher market share of foreign firms have lower domestic firm-embedded TFP.

To quantify these results, the authors use an unbiased two-way fixed effects specification. They find, as expected, that poorer countries have lower firmembedded productivity. Moreover, they show such firm-embedded productivity is a distinct economic phenomena, uncorrelated with measures of physical and human capital, infrastructure, or governance. Onethird of productivity differences across countries is embedded within firms, and this result holds across sectors. Finally, the authors show the productivity of multinational firms is highly persistent across countries: 88% of the difference in firm-embedded productivity across locations is due to productivity differences of domestic firms rather than foreign ones.

The importance of firm-embedded productivity suggests micro-level interventions that improve productivity of firms, such as management and accounting improvements, can play an important role in closing cross-country income differences.

WHY ARE AVERAGE HOURS WORKED LOWER IN RICHER COUNTRIES

By Alexander Blick and Nicola Fuchs-Schündeln, David Lagakos and Hitoshi Tsujiyama

IED Working Paper 355

That those in rich countries work fewer hours than those in poor countries has become a stylized fact in the field of macro-development. Despite this, there is no consensus on the origins of this divergence. The authors build a tractable model to analyze two competing explanations: first, workers in rich countries work less due to income effects, and second, progressive tax-andtransfer schemes in developed countries disincentivize work compared to less onerous tax schemes in poorer countries. Using a wide array of across and withincountry sources of data, the authors show the income effect dominates in explaining why richer countries work fewer hours than poorer ones.

The authors build a simple general equilibrium model to understand the dynamics of hours worked. Consumers enjoy a labor-leisure trade-off and governments apply progressive income taxes which vary across countries. To test the model, the authors employ official data from the IMF, the World Bank, the OECD, government sources, and taxation data from private companies, as well as standard calibrations from the macro-development literature. The author's model matches a variety of macro-economic trends across the development spectrum and more importantly explains the divergence in hours worked between rich and poor: the income effect has over twice the explanatory power as tax-and-transfers.

To supplement their results, the authors build a more complicated model incorporating not only hours worked, but also the choice between working in the traditional or modern sector as well as the cost of job search. With this new framework, the authors conclude practically the entirety of differences in hours worked is explained by income effects.

While differences in progressive taxation schemes may not explain variation in hours worked across the development spectrum, they are crucial in explaining such variation within countries and across rich countries, yet another example of how the macroeconomic principles developed for the study of rich countries need to adjust when studying other parts of the world.

UNEMPLOYMENT AND DEVELOPMENT

By Ying Feng, David Lagakos, and James E. Rauch

IED Working Paper 356

The unemployment rate is the most closelytracked measure of labor-market performance in advanced economies, but little is known about unemployment dynamics in poorer countries as well as how unemployment varies across the world income distribution. When analyzing developing countries, economists disagree about whether low-skilled selfemployment and unemployment are distinct entities, leading to little consensus on the accuracy of existing unemployment metrics. To resolve these uncertainties and disagreements, the authors assemble a new database of national unemployment rates covering all countries and income levels, using 199 household surveys in 84 countries from 1960 to 2015.

The micro-data used by the authors correctly measures the distinction between low-skilled self-employment and unemployment, allowing them to document two new facts. First, contrary to conventional wisdom, unemployment rates are increasing in GDP per capita, a finding consistent across age, gender, and urban vs rural areas. Second, the rise in unemployment rates with development is concentrated exclusively among low-educated workers. A 1 percent increase in GDP per capita leads to 3.2 percent higher unemployment among low-educated workers, but no such relationship exists among high-educated workers.

To understand these results, the authors build a Mortensen-Pissarides style matching model. The labor market has two sectors, a traditional sector, with no search frictions where workers are self-employed, and a modern sector, where workers are unemployed as they wait to match with a firm. As modern-sector productivity increases, low-educated workers switch from the traditional to the modern sector and unemployment, how many are without a job yet currently searching for one, increases.

The authors calibrate their model to match the US labor market, then lower the productivity of each sector to match those of poorer countries. Overall, the authors are able to explain two thirds of the rise in unemployment across the development spectrum, as well as the way unemployment rises among low-educated workers.

Beyond comparisons across countries, the authors also use historical data to show unemployment has risen across the past 100 years within rich countries, and, as before, the rise in unemployment is concentrated among less educated workers. They also consider an alternative explanation for the rise in unemployment --- that rich countries provide greater unemployment benefits --and find this additional consideration only marginally improves the explanatory power of their model.

INDUSTRIAL CLUSTERS, NETWORKS AND RESILIENCE TO THE COVID-19 SHOCK IN CHINA

By Ruochen Dai, Dilip Mookherjee, Yingyue Quan, and Xiaobo Zhang

IED Working Paper 352

Economists have long recognized the importance of firm clusters in industrial organization. Clustering allows firms to share overhead, suppliers, and know-how while producing spatial agglomeration forces which increase productivity. Research on firm agglomeration has traditionally centered on rich countries, but emerging research shows firm clustering is qualitatively different in developing contexts. Firms are smaller, less capital intensive and less vertically integrated. Buyer-seller networks across successive stages of production play an important role, governed by informal relational contracts rather than formal legal contracts. Informal social networks therefore play a larger role in the creation and functioning of clusters. The authors analyze the economic effects of COVID-19 across China to show areas with more firm clusters exhibited greater resilience to the shock. Moreover, both attributes --social networks and spatial agglomeration, played some role in explaining this.

To explain the role of social networks, the authors build on a model developed in Dai et al (2020). The model predicts the effects of an adverse shock, like COVID-19, will vary with the density (or connectedness) of the network, proxied by population density of their hometowns. Specifically, areas with highly connected entrepreneurs will see a smaller drop in the flow of new entrants, but may also see a larger fraction of firms exit.

In their empirical analysis, the authors use two different datasets: new firm registration for the entire country, and a longitudinal entrepreneur sample survey including two phone surveys conducted in February and May 2020. They start by showing that the Covid-19 impact was significantly lower in counties and industries exhibiting a higher degree of clustering, after controlling for industry, month, year. A one standard deviation increase in the cluster index was associated with a 12% higher entry rate, and likelihood of incumbent firm reopening in February and May higher by 4 and 2.5% respectively.

They subsequently seek to disentangle the roles of social networks and spatial agglomeration in explaining these results. They confirm that the empirical patterns on entry and exit were consistent with the theoretical predictions of the effects of network density. However, only part of the resilience can be explained by the observed differences in network density. Using the entrepreneur survey data, they find that after controlling for network density, greater spatial proximity to suppliers and buyers was associated with a higher re-opening rate among incumbent firms. Hence both attributes helped contribute to resilience.

THE POLITICS OF DROUGHT RELIEF: EVIDENCE FROM SOUTHERN INDIA

By Lisa Tarquinio

IED Working Paper 353

Developing countries with large agricultural sectors are particularly susceptible to natural disasters, especially India, one of the most drought-prone countries in the world. In 2009, the government of India introduced a multi-faceted guidelines-based drought relief program designed to be less vulnerable to local political manipulation. The author shows drought relief in India continues to be diverted by state governments. Between 2008 and 2019, one in four drought declarations went to areas with above average rainfall, while one in three areas with drought did not receive relief. Moreover, the author shows this misallocation carries meaningful negative consequences.

The author contextualizes their results with a new dynamic probabilistic voting model in which the statelevel ruling party chooses which areas are given drought relief strategically to maximize the chance of winning the next election. Ruling parties declare droughts in politically contentious areas, especially areas narrowly lost in the previous election.

Combining election data, bureaucratic data on drought relief, satellite data on plant density, and meteorological data, the author uses an instrumental variables approach and a regression discontinuity design to confirm the predictions of their model. Though areas with low rainfall are on average more likely to receive drought assistance, political motivations play a major role. A one standard deviation closer vote margin for the ruling party (an increase in electoral competition) increases the likelihood of receiving drought relief by 9 percentage points. Areas narrowly won by the ruling party in the

last election are 11 percentage points less likely to receive drought relief.

Finally, the author shows drought relief is effective at bolstering agricultural production. Drought declarations are associated with an 11 percent increase in agricultural production in drought-afflicted areas, but only a 6 percent increase in areas which were not drought afflicted. Given that many areas with low rainfall do not receive assistance, re-allocating drought declarations according to official guidelines would improve the resiliency of India's agricultural sector.

NEIGHBORHOODS, PERCEIVED INEQUALITY, AND PREFERENCES FOR REDISTRIBUTION: EVIDENCE FROM BARCELONA

By Gerard Domènech-Arumí

IED Working Paper 354

Perceptions of inequality drive public support for redistribution. While economists have long shown these perceptions are not always in line with true levels of inequality, little is known about how people form beliefs on income and wealth disparities. The author argues hyper-local inequality, variance in wealth within a radius of 500m or smaller from one's home, drives both misperceptions of national-level inequality and support for distributive policies. Because, such misperceptions may drive support for suboptimal policy, the author shows the need for sustained collection of highly disaggregated data on the local distribution of wealth.

Using Random Forest machine learning algorithm and comprehensive housing data in Barcelona, the author constructs a new measure of inequality, the Local Neighborhood Gini (LNG) based on dispersion in apartment values in one's immediate vicinity. To measure perceptions of national inequality as well as support for redistribution, the author conducts an original representative survey across Barcelona.

The author finds that, on average, individuals overestimate inequality in their country, a bias that is largest among men, college graduates, and those supporting left political parties. Even controlling for individual characteristics, LNG has a significant effect on this perception: people living in buildings one standard deviation higher LNG have a 4% increase in perceived inequality, however this does not lead to greater support for redistribution.

The author shows this correlational analysis may be

biased, as individuals who support redistribution self-select into more egalitarian neighborhoods. Consequently, they supplement their analysis with a natural experiment on the effect of the construction of new wealthy apartment buildings. The construction of a new building in one's vicinity leads to a 7% higher perception of inequality and, importantly, a 2.5% higher demand for redistribution.

The author also conducts an informational survey experiment by showing a random selection of survey takers average apartment wealth in neighborhoods across Barcelona. On average, this treatment does not affect perceptions on inequality of support for redistribution, underscoring the importance of hyperlocal, and not merely city-wide, inequality in generating observed effects.

Rugged Individualism and Collective (In)action During the COVID-19 Pandemic

By Samuel Bazzi and Martin Fiszbein and Mesay Gebresilasse

IED Working Paper 351

During the COVID-19 pandemic, individuals' willingness to comply with containment measures, as well as governments' propensity to enact them, has been a key determinant of viral transmission. Adoption of such measures has varied dramatically across the United States and the world but there is no consensus on the underlying causes of this variation. The authors locate "rugged individualism" – individualism and a opposition to government intervention – stemming from time spent on the American frontier as key in explaining levels of collective action in response to COVID-19.

During the process of Westward Expansion, settlers on the frontier benefited from independence and selfreliance in the absence of social infrastructure. In prior work (Bazzi et al, 2020) the authors quantify a locality's exposure to the frontier through an index of "Total Frontier Experience" (TFE) as well as the locality's degree of rugged individualism. Importantly, in this prior work the authors show this distinctive culture persisted: frontier localities are more individualistic and less supportive of redistribution today. In this work, the authors employ the same strategy to causally identify the relationship between individualism and policies in the pandemic.

Through difference-in-differences analysis, the authors

find residents in the top 25% of TFE practiced 10-20% less social distancing than those in the bottom 25% as measured by cell-phone based location data. Using the same empirical strategy in conjunction with a nationally representative survey on mask use, the authors find each additional decade of TFE leads to 5 percentage-point decline in mask use. Each additional decade of TFE is also associated with an 18% lower likelihood of issuing an emergency declaration, a 50% lower probability of a stay-at-home policy, and a 9% lower chance of a mask mandate.

The authors argue these effects are mediated through rugged individualism and lower civic culture. Each additional decade of TFE is associated with .5 percentagepoints lower voter turnout. Rugged individualism's distaste of hierarchies also leads to lower trust in science. The authors show TFE is associated with lower belief in global warming, indicating distrust in science is an important way frontier culture weakens public health interventions.

FACULTY PROFILES

Marianne Baxter's research is in the fields of macroeconomics and international economics. In research related to her prior work on macroeconomic consequences of home production, she has been engaged in a large-scale econometric analysis of household expenditures and household time use as they pertain to home production. She is also working with a data set using IKEA catalogs from many countries and up to twenty years to study the determinants of departures from the law of one price.

Joaquín Blaum's areas of research are international trade and macroeconomics. His work focuses on how heterogeneity matters for macroeconomic outcomes. Joaquin's recent research studies how sourcing of foreign inputs affects firm and aggregate productivity. In ongoing work, he shows that the interdependence between firms' import, and export behavior is key to understanding how economies adjust to large devaluations. In earlier work, Joaquin studied the effects of wealth inequality on aggregate productivity when financial markets function imperfectly.

Rachel Brulé is an Assistant Professor of Global Development Policy at Boston University's Frederick S. Pardee School of Global Studies, Graduate Faculty with BU's Department of Political Science, a Core Faculty at the Global Development Policy Center and affiliated faculty with the Institute for Economic Development. Her research expertise is in comparative politics focusing on gender, South Asia, the political economy of development, political representation, and institutions. Her research combines careful causal identification with innovative theory building to understand the conditions under which policies intended to improve equality may deepen inequality, as well as when, how, and why crises may mobilize long-term support for improving equality.

Christophe Chamley's research is on social learning, coordination of expectations and markets in macroeconomics, and in the history of states' finances from 5000 BC to the 19th century.

Randall Ellis' research focuses on how health care payment systems affect consumers, health care providers, and health plans. He is actively using billions of health insurance claims to develop clinically rich predictive models that can be used to pay health plans and reward high quality. He is currently completing work on a grant from the Agency for Healthcare Research and Quality entitled "Advanced Risk Adjusters and Predictive Formulas for IDC-10 Based Risk Adjustment". He is also working on health care innovation, COVID-19, feasible strategies for universal health insurance, and children with medical complexity. He is currently collaborating with researchers in the US, Netherlands, France, and Australia.

Raymond Fisman works in two main areas of political economy --- corruption, and the causes and consequences of inequality. His recent work on the consequences of social ties in Indian banking was recently published in the American Economic Review, and his research on social ties and favoritism in Chinese science in the Journal of Political Economy. His book on corruption, with political scientist Miriam Golden, was published in April 2017.

Martin Fiszbein works in the fields of economic growth, development, history, and urban economics. His research examines the determinants and the effects of structural change, technology adoption, skill acquisition, and cultural formation. To address open questions in the fields of growth and development, his projects often leverage rich subnational data, new empirical strategies, and a long-run historical perspective.

Ivan Fernandez Val specializes in theoretical and applied econometrics. He has recently been working on nonlinear panel data and distributional methods with applications to labor and development economics. He has recently been working on applications of machine learning to estimate heterogeneous treatment effects in development policy experiments. **Stefania Garetto** is a trade economist whose work is centered on the study of foreign direct investment and the activities of multinational corporations, both from a real and from a financial perspective. Stefania's current research combines empirical analysis and structural dynamic modeling to understand the creation of multinational firms via mergers and acquisitions, and their expansion in space over time. She is a research associate of NBER and a research fellow of CEPR.

Siddharth George's research interests are in development economics, political economy, and labor economics. His recent papers include the economic effects of political dynasties in India since 1862, long run labor market impacts of access to vocational education in Singapore, and an experiment to help understand why Indian voters elect criminal politicians.

Tarek A. Hassan's research focuses on international finance, macro-finance, and social factors in economic growth. Some of his recent papers study the effects of uncertainty on firm behavior and on the allocation of capital across countries. Another set of papers studies the effect of social structure on economic growth and the effect of historical migration and ethnic diversity on foreign direct investment.

Mahesh Karra is an Assistant Professor of Global Development Policy at the Frederick S. Pardee School of Global Studies and Associate Director of the Human Capital Initiative at the Global Development Policy Center. His academic and research interests are broadly in development economics, health economics, quantitative methods, and applied demography. His research utilizes experimental and non-experimental methods to investigate the relationships between population, health, and economic development in lowand middle-income countries.

Robert King focuses his research on monetary policy and macroeconomics. Particular areas of current interest are the nature of price dynamics, the influence of reputation and credibility on optimal monetary policy, and the history of banking markets.

Laurence Kotlikoff specializes in fiscal policy, macroeconomics, money and banking, computational economics, healthcare, and personal finance. He also works on the economics of robots. The author or co-author of 20 books and hundreds of journal articles, Kotlikoff is also a prolific columnist and a #1 NY Times Best Seller author. His columns have appeared in the New York Times, the Wall Street Journal, Bloomberg, Forbes, PBS.org, VOX, and many of the other top newspapers and magazines in the U.S. and abroad. His recent work has focused on carbon taxation, inequality

and fiscal progressivity, work disincentives and labor supply, the causes of the great recession, the future of global economic power, computing large scale lifecycle models with aggregate shocks, and modeling the economic impact of artificial intelligence.

David Lagakos conducts research in the fields of macroeconomics and development economics, focusing on the determinants of sectoral productivity levels, human capital accumulation, structural transformation, and cross-country differences in labor market outcomes, among other topics. His research has appeared in the American Economic Review, the Journal of Political Economy, the Quarterly Journal of Economics and other prominent academic journals. He currently serves as an editor of the Review of Economic Dynamics and a co-editor of the Journal of Development Economics. Since 2016 he has worked as the lead academic for the International Growth Centre in Ghana, helping to foster policy-relevant academic research on economic growth. Lagakos is a research affiliate at the NBER and is a co-organizer of the annual NBER conferences on Economic Growth and Macroeconomics Across Time and Space.

Kevin Lang's research concerns education and labor markets, with a particular focus on discrimination. While his work is primarily centered on the United States, he is currently involved in projects in Singapore on the market for illegal money-lending and on incentives in the retail illegal drug market.

Robert Lucas has recently completed two books. Crossing the Divide: Rural to Urban Migration in Developing Countries is in print with Oxford University Press. This volume includes critiques and summaries of the existing literature on migration between the rural and urban sectors of developing countries and presents fresh analyses of micro data from 75 countries on various aspects of these migrations, contradicting the conventional wisdom in some cases, supporting it in others, but also addressing several topics not previously examined. Portions of this book were presented in Abu Dhabi and the UK in the spring of 2020 before the pandemic curtailed further international presentations. Migration and Development: The Role for Development Aid was published in 2019 by the Swedish Ministry of Justice and presented in Stockholm. This report critically examines aid policies in the context of global, cross-border migrations and refugee flows, with recommendations on the future role of aid in fulfilling the objectives of the Global Compact for Safe, Orderly and Regular Migration. Lucas has now gone on to examine the connections between short-term migration, food security, and child health in seven countries of Sub-Saharan Africa.

Robert A. Margo's recent publications include "The Economic History of Economic History: The Evolution of a Field in Economics," in A. Bisin and G. Federico, eds., Handbook of Historical Economics (London, UK: Academic Press, 2021); and "Industrialization and Urbanization in Nineteenth Century America," (with J. Atack and P. Rhode), Regional Science and Urban Economics (forthcoming).

Jianjun Miao continues to work on two lines of research. The first concerns macroeconomic implications of financial frictions, specifically business cycle and growth implications of bubbles and credit constraints. The second involves new models of ambiguity sensitive preferences and applications to macroeconomics and finance.

Yuhei Miyauchi's primary research interest is to understand how socio-economic activity is shaped within cities and across regions. Yuhei tackles these questions using a combination of theory and new sources of granular data, such as cell phone, smartphone transaction data and firm-level transaction data.

Dilip Mookherjee works on a combination of theoretical and empirical topics related to development economics. Current empirical projects focus on various Asian countries, addressing topics such as political clientelism and delivery of welfare programs, middlemen and marketing supply chains, and the role of local community networks in financial intermediation and entrepreneurship. His theoretical interests include effects of automation on income distribution, and control of collusion in hierarchies. He is a member/fellow/affiliate of BREAD, CEPR, EDI and the NBER Development groups, and Lead Academic of the IGC India Program.

Andrew Newman is currently engaged in several research agendas pertaining to organizational economics, industrial organization, institutions, inequality, and the economics of the household. Recent work involves a unifying organizational- and industrial-economics theory of endogenous market structure. Other work develops testable theories of how firms' internal organization decisions such as outsourcing or vertical integration interact with markets and how those decisions in turn affect product market performance, particularly in the face of globalization. He has been contributing to the economic theory of matching markets and applying that to affirmative action policies. He is also exploring how the processes by which people learn about their economic environment can lead to organizational dysfunction and change.

Daniele Paserman specializes in labor, applied microeconomics, political economy and behavioral economics.

Natalia Ramondo is a trade economist whose research is focused broadly on issues of globalization, particularly with respect to the role of multinational firms. Ramondo is part of a new wave of economists using quantitative models and detailed datasets to understand the welfare gains (and losses) from various forms of economic openness.

Pankaj Tandon concentrates on technological change, microeconomics, public enterprises, and food policy. He has worked on evaluating privately financed infrastructure projects and privatization programs. His main field experience has been in Egypt, India, Mexico, and Venezuela.

Professors Emeriti: Peter Doeringer, Shane Hunt, and Gustav F. Papanek

GRADUATE STUDENTS

MANUEL ABDALA AWARD AND IED SUMMER FIELDWORK GRANT RECIPIENTS: MAXIMILIANO GARCIA AND YUHENG ZHAO



Maximiliano Garcia's project is set in Chile, and titled '*Public Housing, Inclusion and Efficiency of Public Expenditure*'

Yuheng Zhao's project is set in China, and is titled 'Southbound Officials and Their Long-Lasting Impact'

The Abdala program was created in 2019 to fund research fieldwork of graduate students.

These grants are made possible by a generous gift from alumnus Manuel Abdala. These are supplemented by fieldwork grants awarded by IED. Fieldwork is broadly defined to include conduct of surveys, interviewing, collecting archival/historical data, or performing laboratory experiments, along with associated activities necessary to carry out a research project.

The 2021 grants provided funding to two PhD students: Maximiliano Garcia and Yuheng Zhao.

2021 ROSENSTEIN-RODAN PRIZE: YIMING CAO

The Rosenstein-Rodan prize is awarded annually for the best paper(s) in a development-related area written by a PhD student. The 2021 Rosenstein-Rodan Prize was awarded to two students: **Yiming Cao and Thomas Pearson**.



Yiming Cao's paper is titled:

"The Social Costs of Patronage Ties: Lessons from the 2008 Sichuan Earthquake."

Abstract

This paper examines the societal consequences of patronage ties, the informal personal connections between individuals unequal in their power. I provide empirical evidence that these connections create social vulnerabilities that magnify the impact of negative shocks. Specifically, I study the aftermath of the devastating 2008 Sichuan earthquake, which offers an opportunity to bring to light vulnerabilities that remain invisible in most states of the world. Using an original dataset that covers 1,065 buildings in the quake-affected area, I find that buildings constructed when the county officials had connections

to their superiors at the prefecture level (in terms of having the same hometown) are 13 percentage points (83 percent) more likely to collapse relative to the no-connection benchmark. I find suggestive evidence that the effects likely reflect a lack of building code enforcement due to shirking or rent-seeking by connected officials. Aggregated damage statistics at the county level suggest that one additional year of having a connected official is associated with an 8 percent increase in mortality and a 3 percent increase in direct economic loss from the earthquake. These findings add to the long-standing debate on whether patronage (and corruption more broadly) is socially detrimental by highlighting the fact that the costs of corruption may be latent and hard to observe in the absence of negative shocks.

2021 ROSENSTEIN-RODAN PRIZE: THOMAS PEARSON



Thomas Pearson's paper is titled: U.S. Immigration Enforcement and Mexican Labor Markets

Abstract

This paper uses Secure Communities (SC), a policy which expanded local immigration enforcement, to study how increased immigration enforcement in the US affects Mexican labor markets. The variation in the application of SC across US states and in the destination patterns of comparably similar Mexican municipalities generates quasi-random variation in exposure to the policy. I show that in the short run, exposure to SC deportations increases return migration and decreases monthly incomes from working for less-educated men and women. SC deportations also increase net outflows within Mexico and emigration to the US, a potential mechanism for

why earnings mostly rebound after five years. The negative short run effects do not appear to be driven by falls in remittance income or increases in crime as SC deportations increase the share of households receiving remittances and do not affect homicide rates. The results instead point to increased labor market competition as a result of deportee inflows. Lastly, I show that in municipalities with more banks and access to capital and where transportation and migration costs are lower, men's earnings are less responsive to the labor supply shock.

2021 MA Research Fellows:

The IED recently established the Summer MA-Research Fellowships program that will award a \$3000 prize to three students and a \$1000 stipend to their respective faculty mentors. 2021 MA Research Fellowship awardees are: Isabel Mullens, Michael Toolan and Hanjoon Kwan. A short summary of their project proposals are provided below.



ISABEL MULLENS, MENTORED BY PROFESSOR JORDI JAUMANDREU (SENIOR ACADEMIC RESEARCHER AND LECTURER, BOSTON UNIVERSITY).

The Fall of Employment and the Labor Share in US Manufacturing

From beginning of the 2000s

until 2010, a sharp fall in US employment in the manufacturing industry occurred followed by a period stabilization; this sharp 10-year decrease was also accompanied by a fall in the average labor share in variable cost. Relying on the release of the recent Census data aggregated in the NBER-CES database, which now covers 1958-2018, this project will attempt a preliminary unified approach to explain the loss of employment in manufacturing. More specifically, it will explore the presence of labor augmenting productivity or technological change in the production function as an explanation for the fall in employment and the labor share. It will also examine how innovations have interacted with the level of competition on the demand side.

MICHAEL TOOLAN, MENTORED BY PROFESSOR ROBERT G. KING

Technological Impact on the European Union

Technological change has been a topical source of discussion for economists for as long as the field has existed. Indeed, Adam Smith commented on "machines which facilitate and abridge labor, and enable one man to do the work of many". In modern times however, the impact of technological change on labor and the wider economy has faced renewed scrutiny. This project focuses on the different

states of preparedness of EU states for future labor market disruption. The project is investigating impact technological on employment in European countries. Heterogeneous labor conditions in Europe present a unique economic and political risk, owing to the EU, the continents preeminent trading bloc.



EU laws permit free movement of labor across borders, potentially exasperating any technology shock that displaces employees. So far, significant underlying risks have been identified and the project aims to more closely analyze specific trends for future policy decisions. any technology shock that displaces employees. So far, significant underlying risks have been identified and the project aims to more closely analyze specific trends for future policy decisions.



Hanjoon Kwon, mentored by Professor Raymond Fisman

The impact of the political influence on the Occupational Safety and Health Administration (OSHA) violations

Hanjoon's research aims to understand the role

of political influence on state-level enforcement in Occupational Safety and Health Administration (OSHA). It is designed to scrutinize how and to what extent that state political structure impacts the local level operation of OSHA. The question raised in this research has two main aspects: First, what are the trends in OSHA cases penalties and how do these vary with election results. The study utilizes details of OSHA violation cases and their penalties from the OSHA Enforcement Dataset. This data will be linked to the general election result data for all states in six major elections - the president, Senate, the House of Representatives, gubernatorial, state upper chamber, and state lower chamber. Second, this study is designed to evaluate whether the political impact on the enforcement actions is more sensitive in states outside federal jurisdiction.

STUDENT PLACEMENT

This year, twenty-one graduating BU Ph.D. students have accepted job offers and will join the ranks of 12 universities and colleges in North America, Europe, and Asia, two central banks, two government agencies, two research institutions, and three private sector firms.

Undral Byambadalai	Stanford University (Postdoctoral Fellow)		
Lester Chan	Xiamen University (Assistant Professor)		
Pablo Cuellar Tapia	Utah State University (Postdoctoral Fellow)		
Taosong Deng	Hunan University (Assistant Professor)		
Gerard Domenech Arumi	mi European Center for Advanced Research in Economics and Statistics (ECARES)		
	(Postdoctoral Fellow)		
Thomas Gautier	Kiel Institute (Postdoctoral Fellow)		
Pak Shing Ho	Amazon (Economist)		
Youming Liu	Bank of Canada (Senior Economist)		
Sophia Ying Liu	Government Accountability Office (Economist)		
Yang Ming	Central University of Finance and Economics (Assistant Professor)		
Julio Ortiz	Federal Reserve Board of Governors (Economist)		
Cheonghum Park	Korea Institute of Public Finance (Economist)		
Fernando Payro	Universitat Autonoma de Barcelona (Assistant Professor)		
Chew Zhouxiang Shen	Zhejiang University (Assistant Professor)		
Lisa Tarquinio	Western University (Assistant Professor)		
Silvia Vannutelli	Northwestern University (Assistant Professor)		
Sergio Villar Vallenas	ZipRecruiter (Data Scientist)		
Shuang Wang	Charles River Associates, Antitrust & Competition Economics (Senior Associate)		
Anna Weber	United States Military Academy, West Point (Assistant Professor)		
Guang Zhang	Hong Kong University of Science and Technology (Guangzhou) (Assistant Professor)		
Xiaoxi Zhao	RAND Corporation (Associate Economist)		

ALUMNI NEWS

Alumni Engagement

IED works in close partnership with the Department of Economics' MA Alumni Council and newly formed PhD Alumni Council to foster a cohesive relationship between the department, current students, and alumni. Through the organization of academic and social events, the IED aims to provide collaborative experiences to our vast network of alumni.

MA ALUMNI COUNCIL

The MA Alumni Council (MAAC) continues to provide support to our Master's students with career development events throughout the year. This past year the MAAC sponsored an excel workshop, mock interviews, and a career information meeting during the fall semester.

The Master's Alumni Council members are Kelly Colden (BA/MA 2014, Global Account Finance Advisor, Assistant Director – Ernst & Young), Prithvi Hingorani (BA/MA 2015, Research Associate – Cornerstone Research), and Caroline Margiotta (BA/MA 2017, Health Analyst – Mathematica Policy Research).

PhD Alumni Council

The PhD Council works in collaboration with IED and the GEA to plan networking and career development events throughout the academic year. During Fall 2020, the PhD Alumni Council held a virtual panel event and offered ongoing support for job market candidates. This summer they hosted a panel event led by Jesse Bruhn on the process and challenges of writing the job market paper, and worked with the GEA to begin designing an alumni-PhD student mentoring program. They look forward to hosting more events this year, including events of interest to students earlier in the program, and to finding more ways to productively engage our global network of alumni from the PhD program.

The PhD Alumni Council members are Chair Paul Karner'12 (Horizon Data Science), Jesse Bruhn '19 (Brown University), Emily Rose Gee '15, Jee-Yeon Kim Lehmann '12 (Analysis Group), Dara Lee Luca '11 (Amazon), Aditi Mehta '08 (DOJ-ATR), Silvia Prina '08 (Northeastern University).

IED 2020-2021 Research Visitors



Dr. Marialuz Moreno Badia

Marialuz Moreno Badia is a deputy division chief in the IMF's Fiscal Affairs Department, where she coordinates work on the *Fiscal Monitor*. Her country work experience includes a broad range of advanced and emerging countries such as Brazil, Greece, Ireland, and Spain. Her main research interests are on fiscal institutions, debt sustainability, and fiscal-financial interlinkages. She holds a PhD from Boston University.

Professor Cynthia Kinnan

Professor Cynthia Kinnan is the James L. Paddock Assistant Professor in International Economics at Tufts University. Her research focuses on how households and small firms in developing countries use financial products (such as credit, insurance, savings) and informal networks to finance investment and cope with risk. She is a faculty research fellow at the National Bureau of Economic Research (NBER) and an affiliate of the Jameel Poverty Action Lab (JPAL) and the Bureau for Research and Economic Analysis of Development (BREAD).



DISTINGUISHED VISITORS

The following distinguished visitors spent a few days in the Economics department each, giving a seminar and two lectures in their field of expertise for the benefit of our graduate students and faculty:

Greg Kaplan (University of Chicago) visited from November 9 – 13, 2020 (Macro)

Due to circumstances surrounding COVID-19, the following seminars were held remotely via Zoom:

Allan Timmermann (UCSD) visited from March 8 – 12, 2020 (Econometrics)

Kathryn Shaw (Stanford) visited from March 15 – 19, 2020 (Empirical Micro 1)

Emi Nakamura (Berkeley) visited from March 22 – 26, 2020 (Macro)

Nancy Qian (Kellogg) visited from April 5 – 9, 2020 (Development)

Sam Kortum (Yale) visited from April 19 – 23, 2020 (Trade)

Andres Rodriguez-Clare (Berkeley) visited from April 26 – 30, 2020 (Theory)

SEMINARS

IED organizes a weekly seminar during the academic year where visiting speakers present their research. The following is the list of seminars for the 2020-21 year:

Fall 2020

9/21/20	Cynthia Kinnan (Tufts)	"Insurance and Propagation in Village Networks" (with Krislert Samphantharak, Robert Townsend and Diego Vera-Cossio)
9/28/20	Don Davis (Columbia)	"Labor Market Polarization and the Great Divergence."
10/05/20	Rachel Brule (BU)	"Reform, Representation, and Resistance: The Politics of Property Rights' Enforcement"
10/19/20	Thomas Fujiwara (Princeton)	"Local Politicians and the Deforestation of the Amazon."
10/26/20	Eric Verhoogen (Columbia)	"Markups and Quality: Evidence from Colombian Coffee Exports"
11/02/20	Clare Balboni (MIT)	"In Harm's Way? Infrastructure Investments and the Persistence of Coastal Cities"
11/09/20	Ben Marx (Sciences Po)	"J'Accuse! Antisemitism and Financial Markets in the time of the Dreyfus Affair."
11/16/20	Supreet Kaur (UC Berkeley)	"The Planning Fallacy in Consumption Smoothing: A Field Experiment on Seasonal Hunger"
11/23/20	Kaivan Munshi (Yale)	"Economic Development, the Nutrition Trap and Metabolic Disease"
11/30/20	Caroline Theoharides (Amherst)	"Medical Worker Migration and Origin-Country Human Capital: Evidence from U.S. Visa Policy "
12/07/20	Erika Deserranno (Northwestern)	"Meritocratic Promotions, Pay Progression and Worker Productivity: Evidence from the Community Health Worker Program in Sierra Leone"

Spring 2021

Due to circumstances surrounding COVID-19, all Spring 2021 seminars were held remotely via Zoom.

3/01/2021	Martha Bailey (UCLA)	"How the 1963 Equal Pay Act Affected the U.S. Gender Gap"
3/08/2021	Treb Allen (Dartmouth)	"Trucks""
3/15/2021	Cristian Pop-Eleches (Columbia)	"Information, preferences, and household demand for school value added"
3/22/2021	Aradhya Sood (Univ. of Toronto)	"Land Market Frictions in Developing Countries: Evidence from Manufacturing Firms in India"
3/29/2021	Nancy Qian (Kellogg, DV)	"Aid Crowd-Out: The Effect of NGOs on Government- Provided Public Services"
4/05/2021	Sam Kortum (Yale, DV)	"Lectures on Trade Models and Micro Data"
4/12/2021	Petra Moser (NYU)	"Women in Science. Lessons from the Baby Boom"
4/21/2021	Chris Blattman (Univ. of Chicago)	Postponed
4/26/2021	Ömer Özak (SMU)	"Millet, Rice, and Isolation: Origins and Persistence of the World's Most Enduring Mega-State"

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