Doctoral Program in Applied Economics

PHD CANDIDATES AVAILABLE FOR POSITIONS IN THE ACADEMIC YEAR

2017-2018

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Applied Economics Job Market Candidates 2017-2018

Amanda Chuan
JMP: *"Non-College Occupations and the Gender Gap in College Enrollment"*
FIELDS: Labor Economics, Public Economics, Behavioral Economics
ADVISORS: Iwan Barankay, Petra Todd, Judd Kessler, Corinne Low, Katherine Milkman
EMAIL: achuan@wharton.upenn.edu

Benjamin Hyman
JMP: *"Can Displaced Labor be Retrained? Evidence from Quasi-Random Assignment to Trade Adjustment Assistance"*
FIELDS: Applied Microeconomics, International Trade and Labor Markets, Public Economics, Urban Economics
ADVISORS: Gilles Duranton, Ann Harrison, Fernando Ferreira, Jessie Handbury, Benjamin Keys
EMAIL: bhyman@wharton.upenn.edu

Lindsay Relihan
JMP: *"Is Online Retail Killing Coffee Shops? Estimating the Winners and Losers of Online Retail Using Customer Transaction Microdata"*
FIELDS: Household Finance, Retail and Banking, Urban Economics
ADVISORS: Gilles Duranton, Todd Sinai, Joseph Gyourko, Jessie Handbury, Ben Keys
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AMANDA CHUAN
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Personal Information: Female, U.S. citizen

Undergraduate Studies:
B.A. in Economics and Biological Sciences, University of Chicago, honors, 2011

Graduate Studies:
Wharton School, University of Pennsylvania, 2013 to present
Ph.D. Candidate in Business Economics and Public Policy
Thesis Title: "Essays in Labor and Behavioral Economics"
Expected Completion Date: May, 2018

References:

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Professor Katherine Milkman
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Teaching and Research Fields:
Primary fields: labor economics, public economics, behavioral economics
Secondary fields: economics of education, gender, economics of altruism

Teaching Experience:

Fall, 2015	*Managerial Economics* (Undergraduate), Teaching Assistant for Professor Gilles Duranton

Spring, 2016	*Research Design Fundamentals and Applications in Business* (Undergraduate), Guest Lecturer for Professor Catherine Schrand
Spring, 2017	*Research Design Fundamentals and Applications in Business* (Undergraduate), Guest Lecturer for Professor Iwan Barankay

Research Experience:

2013-2014	Research Assistant to Judd Kessler (Wharton)
2012-2013	Research Assistant to Anya Samek (Wisconsin-Madison)
2011-2012	Research Assistant to Marianne Bertrand (Chicago Booth)
2010-2011	Research Assistant to John List (Chicago)

Professional Activities:

Referee Service:	Journal of Public Economics, Management Science

Presentations:

2016:	Southern Economic Association Meetings, Washington, DC; Advances in Field Experiments Conference, University of Chicago; Behavioral Decision Research in Management, University of Toronto; Women in Business Academia Conference, Wharton School; Spring School in Behavioral Economics, University of San Diego (poster);
2015:	Health, History, Demography, and Development Conference, University of Michigan; Behavioral Economics and Health Symposium, University of Pennsylvania; Science of Philanthropy Initiative Conference, University of Chicago
2014:	Science of Philanthropy Initiative Conference, University of Chicago (poster);
2012:	Experimental Science Association International Conference, New York University

Honors, Scholarships, and Fellowships:

2016-2017	Mack Institute Research Fellowship
2015-2017	Wharton Risk Center Russell Ackoff Doctoral Student Fellowship Award
2014-2015	Wharton Doctoral Travel Grant
2014-2015	Graduate and Professional Student Assembly Research Travel Grant
2013	National Science Foundation Graduate Research Fellowship Honorable Mention
2013-2017	Wharton Doctoral Programs Fellowship

Publications

"Feel the Warmth Glow: A Field Experiment on Manipulating the Act of Giving" (with Anya Samek), *Journal of Economic Behavior and Organization,* December 2014, Vol. 108: 198-211.

Research Papers:

"Non-College Occupations and the Gender Gap in College Enrollment" (JOB MARKET PAPER)

Abstract: Women used to lag behind but now exceed men in college-going. This paper argues that gender differences in the jobs available to workers with only high school degrees ("non-college jobs") are a key driver of this phenomenon. The first part of the paper argues that the non-college labor market plays a large role in driving women to attend college at greater rates than men today. I document that men face more plentiful and higher-paying non-college job prospects than women do, and argue that the non-college labor market is more favorable to men than women. I then use two empirical exercises to show that non-college job options

dramatically affect the college-going decisions of both men and women. Employment changes in the oil and gas industry, which affect the non-college labor market for men, influence male college enrollment but not female college enrollment. The automation of the office, which disproportionately impacted the non-college job prospects of women, led to growth in female enrollment but not male enrollment. The second part of the paper addresses the role of non-college jobs in explaining why male and female enrollment evolved differentially over time. I document that the non-college job options of women declined dramatically, right as women began to substantially increase their participation in the labor force. I situate these findings in a theoretical model to show how the growing importance of non-college job options for women contributed to why men exceeded women in college-going historically and why women exceed men in college-going today.

"A Field Study of Charitable Giving Reveals that Reciprocity Decays over Time" (with Judd B. Kessler and Katherine L. Milkman), revise and resubmit at *Proceedings of the National Academy of Sciences*

Abstract: We examine how reciprocity changes over time by studying a large quasi-experiment in the field. Specifically, we analyze administrative data from a university hospital system. The data includes information about over 18,000 donation requests made by the hospital system via mail to a set of its former patients in the four months following their first hospital visit. We exploit quasi-experimental variation in the timing of solicitation mailings relative to patient hospital visits and find that an extra 30-day delay between the provision of medical care and a donation solicitation decreases the likelihood of a donation by an estimated 30%. This steep decline in giving is most pronounced among patients visiting hospital departments handling the most severe patient cases, suggesting that decaying reciprocity — rather than forgetfulness — is responsible. Our findings have important implications for models of economic behavior, which currently fail to incorporate reciprocity's sensitivity to time. The fact that reciprocal behavior decays rapidly as time passes also suggests the importance of capitalizing quickly on opportunities to benefit from a "quid pro quo."

"Can Financial Incentives Induce Unequal Parental Investment in Children? Evidence from a Field Experiment" (with John List and Anya Samek)

Abstract: Human capital is crucially affected by parental investment in early childhood. One way to induce parents to invest in children is to decrease the shadow price of this activity by providing incentives. Yet incentivizing investment in one child may have negative consequences for the allocation of time to other children in the household. We take advantage of a novel field experiment in which low-income parents of 3-5 year-olds in the United States were exposed to a year-long parenting intervention and were randomized to either receive immediate or delayed incentives to invest in the targeted child. We surveyed parents regarding the time they spent with their targeted child and with the child's siblings. As predicted, we found that parents spent more time investing in targeted children when incentivized immediately versus with a delay. Importantly, we found statistically significantly lower time investment in siblings of families treated with the immediate versus the delayed incentive. Our findings point to the importance of considering negative spillover effects of incentivizing parental investment, and are consistent with a model of intra-household resource allocation.

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Undergraduate and Master Studies:
B.A. (Honors), International Relations – Political Economy, University of Southern California, 2008
M.C.P., Urban and Regional Planning, Massachusetts Institute of Technology, 2011

Doctoral Studies:
Wharton School, University of Pennsylvania, 2012 to present
Thesis Title: Essays in Public Economics and International Trade
Expected Completion Date: May, 2018

Thesis Committee and References:

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Professor Benjamin Keys
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Teaching and Research Fields:
Applied Microeconomics, International Trade and Labor Markets, Public Economics, Urban Economics

Teaching Experience:

Fall/Sp, 2016	*Urban Fiscal Policy* (Undergraduate, MBA), Wharton School - TA for Professor Robert Inman [teaching reference]
Fall, 2014	*Intermediate Microeconomics and Game Theory* (MBA), Wharton School - TA for Professors Matthew Friedman, Corinne Low, and Michael Sinkinson
Fall 2011	*Intermediate Microeconomics and Urban Economics,* MIT Urban Planning - Tutor for Master in City Planning students, Professor Frank Levy

Research Experience and Other Employment:

2016 – Present	Special Sworn Status researcher at U.S. Census Bureau
2012 – 2013	Research Assistant for Santosh Anagol (Wharton) and Thomas Fujiwara (Princeton)

2011 – 2012	Research Associate for Michael Greenstone (MIT), Rohini Pande (Harvard), Nick Ryan (Harvard), Anant Sudarshan (Harvard), J-PAL Poverty Action Lab, India
2010 – 2011	Research Assistant, Private Council for Competitiveness, Bogotá Colombia

Professional Activities:

Presentations:	NBER Trade and Labor Markets Conference, 2017; Applied Economics Faculty Seminar, 2017 (UPenn, Wharton)
Conferences Attended:	NBER Summer Institute, 2017 (Labor Studies and Urban Economics); Frontiers In Urban Economics (Columbia University), 2015; Price Theory PhD Workshop, 2015 (University of Chicago); Handbook of Urban and Regional Economic Vol. 5, 2014 (UPenn, Wharton); AEA Annual Meetings 2014, 2016; CIBER Globalization of Innovation Workshop (Duke, Fuqua); Federal Reserve Bank of Philadelphia, Community Development Research Forum, 2013
Refereeing:	Journal of Development Economics, Journal of Public Economics

Honors, Scholarships, and Fellowships:

2017	Kauffman Dissertation Fellowship ($20,000)
2016	Lincoln Land Institute, Lowell Harris Dissertation Fellowship ($10,000)
2016	J-PAL North America, Project Development Grant ($5,000)
2016	Wharton Public Policy Initiative, Ibrahim Family Fellow ($12,000)
2013-15	Wharton Mack Institute for Innovation Research Grants ($18,500 cumulative)
2012-16	Wharton Doctoral Education Fellowship
2011	MIT Caroll L. Wilson Award ($7,000)

Research Papers:

Can Displaced Labor Be Retrained? Evidence from Quasi-Random Assignment to Trade Adjustment Assistance (JOB MARKET PAPER)

Presented at: *NBER Trade and Labor Markets conference, October 2017*

The extent to which workers adjust to labor market disruptions in light of increasing pressure from trade and automation commands widespread concern. However, surprisingly little is known about efforts that deliberately target the adjustment process. This project studies 20 years of worker-level earnings and re-employment responses to Trade Adjustment Assistance (TAA)—the United States' largest and longest standing public incentive program for retraining. I estimate causal effects from the quasi-random assignment of TAA cases to investigators of varying approval leniencies. Using employer-employee matched Census data on 300,000 displaced workers, I find large initial returns to TAA. Ten years out, TAA-trained workers have $50,000 higher cumulative earnings, driven by both higher incomes and greater labor force participation. Yet annual returns fully depreciate after ten years. TAA appears to have no effect on formal education, and decaying returns are restricted to states with low training durations. Combined with evidence that effects are driven by training rather than transfer components of TAA, this suggests that the program augments transient rather than permanent human capital. Returns are further concentrated in the most disrupted regions, where workers are more likely to switch industries and move to labor markets with better opportunities in response to training—consistent with adjustment frictions.

When Do Firms Go Green? Comparing Price Incentives with Command and Control Regulations in India with Ann Harrison, Leslie Martin, and Shanthi Nataraj. *NBER Working Paper #21763*.

India has a multitude of environmental regulations but a history of poor enforcement. We compare the effectiveness of command-and-control (CAC) environmental regulations versus price incentives for manufacturing enterprises. Our measures of effectiveness include investment in pollution abatement, reducing use of dirty fuels like coal, and productivity growth. Between 1996 and 2004, India's Supreme Court required 17 cities to enact Action Plans to reduce air pollution through a variety of CAC regulations. We find that the Action Plans affected firm behavior at the extensive margin, increasing the share of large firms investing in pollution control, and reduced the entry of new firms. In contrast, price incentives appear to have been more effective at influencing the intensive margin of firm behavior; we find that higher coal prices are associated with lower coal use within firms, with price elasticities similar to those found in the US.

Imported Inputs and Productivity Spillovers from Foreign Direct Investment

This paper considers how input market liberalization affects host country productivity spillovers from multinational corporation (MNC) investments. The standard "Backward Linkage" measure used to estimate technology and learning spillovers to local upstream suppliers—pioneered by Javorcik (2004) and replicated across several influential papers—implicitly assumes domestic and foreign firms share the same input structure. I show that this assumption constitutes an omitted variable bias of imported inputs in TFP spillover estimation. Using a novel Colombian firm panel that isolates imported from domestic inputs, mean backward linkage productivity spillovers reduce in half when the share of locally sourced inputs is adjusted to reflect MNCs' observably higher propensity to import inputs. However in some industries, productivity spillovers increase in response to the adjustment. I demonstrate that the sign and magnitude of this bias are proportional to the elasticity of substitution between imported and domestic inputs. The results highlight how input market liberalization can have important feedback effects on local productivity spillovers from MNCs.

Research In Progress:

Tax Credit Instruments and Labor Market Outcomes: Do Targeted Incentives Outperform Lotteries?

Note: *Project approved for analysis with U.S. Census Bureau confidential microdata (April, 2016), and by State of California Governor's Office of Business and Economic Development (May, 2016)*

States continue to attract employers with location-based tax credits. In an effort to reduce inframarginal (i.e. wasteful) tax expenditures, some states have attempted to target these incentives to firms most likely to relocate. I exploit two natural policy experiments in California to study the efficacy of these incentives under both targeted and untargeted assignment mechanisms. Prior to 2013, California awarded tax credits in part via a randomized lottery, but the state has since switched to a targeted formula that ranks firms based on their likelihood of exiting the state absent the subsidy. Because the formula uses a score cutoff to assign tax credits, I can compare results from the lottery to those from a regression discontinuity design around this acceptance threshold, implicitly testing whether states can identify marginal-mover firms *a priori*. Combining state administrative data on the universe of tax credit applicants with Census Bureau microdata, I can estimate effects on employer relocation, local employment, firm revenue and implied tax revenue.

Other: Author of "Open-Source GIS Tutorial for Applied Economists – Application: Quantifying the Externality Costs of Pollution Diffusion". MIT Poverty Action Lab, 2013. (Links: Tutorial | R Code)

Languages: English (native), Spanish (fluent), French (fluent), Hindi (beginner)

Computer: Stata, SAS, R, Matlab, LaTeX, ArcGIS, Open-Source GIS (various), MS Office

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Undergraduate Studies:

Bachelor of Arts, Economics, Wellesley College, Honors, 2009

Graduate Studies:

Wharton School, University of Pennsylvania, 2012 to present
Thesis Title: *"Local Interactions between Firms and Consumers"*
Expected Completion Date: May 2018

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Teaching and Research Fields:

Primary fields: Household Finance, Retail and banking, Urban Economics

Teaching Experience:

Spring 2017	Managerial Economics, Wharton School, Head TA
Fall 2016	Introduction to Business Economics and Public Policy, Wharton School, TA
Spring 2015	Housing Markets, Wharton School, TA
Spring 2015	Managerial Economics, Wharton School, TA

Research Experience and Other Employment:

2015 - present	JPMorgan Chase Institute, Research Fellow

Fall 2015	Wharton School, Research Assistant to Todd Sinai
2013-2014	Wharton School, Research Assistant to Joseph Gyourko and Fernando Ferreira
2009-2012	Federal Reserve Board of Governors, Household and Real Estate Finance, Research Assistant

Professional Activities:

2017	Urban Economics Association North American Meeting, Vancouver
2016	INSEAD-Wharton Doctoral Consortium, Singapore
2012	American Real Estate & Urban Economics Association Mid-Year Meeting, DC

Honors, Scholarships, and Fellowships:

2017	Benjamin H. Stevens Graduate Fellowship in Regional Science
2015	JPMorgan Chase Institute Fellowship
2012-2016	Wharton Doctoral Fellowship

Job Market Paper:

"Is Online Retail Killing Coffee Shops? Estimating the Winners and Losers of Online Retail using Customer Transaction Microdata"

Is online retail a complement or substitute to local offline economies? This paper studies how consumers in cities reorganize their shopping trips to grocery stores and coffee shops after they become online grocery shoppers. To do so, I use new, detailed data on the daily online and offline transactions of millions of anonymized customers. I find that high-use early adopters of online grocery platforms reduce their spending at grocery stores by 4.5 percent and increase their spending at coffee shops by 7.6 percent in the two years after take-up. The effect for coffee shops is driven by their shift from trips to grocery stores toward trips to coffee shops in their same zip code, particularly during weekdays. I present a discrete choice model to show that these results are consistent with trip-chaining and that the welfare gains disproportionately go to consumers for whom making trips to grocery stores is costly; consumers in zip codes with the lowest grocery density and highest average incomes experience welfare gains three and eight times as large, respectively, as consumers in the highest grocery density and lowest average income zip codes. These results show that complementarities created through behaviors like trip-chaining can create both winning and losing stores and consumers to online retail.

Other Research Papers:

"*Branches in Local Mortgage Markets*"

This paper studies the impact of branch presence on mortgage credit outcomes in the surrounding neighborhood using the density of nearby branch networks to instrument for actual branch presence. I find that lenders with branches lend more mortgages to borrowers in the surrounding neighborhood and that those operated by local lenders have the most positive impact for low socioeconomic-status borrowers. However, I show that branches disadvantage competing lenders by lowering the credit-quality of the competing lenders' applicant pool. This adverse selection causes an aggregate negative effect of branch presence on neighborhood mortgage outcomes.

"Affordability, Financial Innovation, and the Start of the Housing Boom"
(with Jane K. Dokko and Benjamin Keys)

At their peak in 2005, more than 60 percent of all purchase loans originated in the United States contained at least one non-traditional feature. These features, which allowed borrowers easier access to credit through "teaser" interest rates, interest-only or negative amortization periods, and extended payment terms, have been the subject of much regulatory and popular criticism. In this paper, we construct a novel county-level dataset to analyze the relationship between rising house prices and non-traditional features of mortgage contracts. We apply a break-point methodology and find that, in many markets, rising use of non-traditional mortgages predates the start of the housing boom and continues to rise thereafter. Our results are most consistent with the view that, in many markets, loosening financing constraints contributed to the house price boom. Moreover, their continued use suggests that homebuyers turned to these products to afford increasingly more expensive homes.