Muxin Zhai

Gender: Female Age: 30 Citizenship: P.R.China September 6, 2018

McCoy College of Business Administration
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ACADEMIC POSITIONS

Assistant Professor, McCoy College of Business Administration, Texas State University, Sep 2018 - present

Post-Doc Research Associate, Leeds School of Business, University of Colorado Boulder, Jun 2016 - Aug 2018

EDUCATION

Ph.D in Economics, University of Washington, Sep 2011 - Jun 2016

M.A. in Economics, University of Washington, Sep 2011 - Dec 2013

B.S. in Economics and Mathematics, University of Iowa, Jan 2008 - Dec 2010

FIELD OF INTEREST

Applied Microeconometrics, Behavioral Economics, Public Policy, Quantitative Marketing

COMPUTER SKILLS

Software: Stata, ArcGIS, R, Matlab, SPSS, SAS, LaTeX, MS Office.

TEACHING EXPERIENCE

McCoy College of Business Administration, Texas State University

- *Instructor:* Principles of Microeconomics
- *Instructor:* Principles of Macroeconomics

Leeds School of Business, University of Colorado - Boulder

- *Teaching Assistant:* Market Intelligence (MBA)
  Spring 2018

Department of Economics, University of Washington - Seattle

- *Instructor:* Intermediate Microeconomics
  Fall 2014 - Fall 2015
- *Instructor:* Introduction to Microeconomics
  Fall 2013 - Summer 2014
- *Teaching Assistant:* Introduction to Microeconomics
  Winter 2012 - Spring 2013

RESEARCH EXPERIENCE

Generous to a Fault: The Effect of Generosity of Employers Retirement Plan Contributions on Cash-Out Leakage at Job Separation (with Yanwen Wang and John Lynch)
Abstract:
In the United States, "retirement plan leakage" occurs when employees withdraw money prior to retirement and pay a financial penalty for doing so. The vast majority of early leakage from retirement savings system occurs when employees leave a job. We analyze a large data set on employees' 401(k) contributions and leakage decisions, and we investigate how retirement plan generosity affects the probability and amount of leakage at job termination. Our results suggest that employees respond strategically to employer-based defined contribution plans. An overly generous plan may not unambiguously incentivize employee contributions to retirement savings. The percentage of leakage at job separation increases with the proportion of employer's contribution relative to the employee's contribution. We explain this phenomenon using mental accounting concepts. We suggest that the employer's contribution is likely to be labeled as "free money" and thus subject to early withdrawal. Our counterfactual analysis of how employees respond to modifications of current employer's matching scheme supports the hypothesis.

Air Pollution, Road Transport and Spatial Spillovers: Evidence from the World's Largest Low Emission Zone in London (with Hendrik Wolff, revise and resubmit to *The Journal of Environmental Economics and Management*)
Abstract:
Low emission zone (LEZ) has been extensively adopted in many European countries as a clean air strategy. We estimate the environmental effects of the world's largest LEZ introduced in Greater London in early 2008. The LEZ in London restricts heavily polluting diesel vehicles from entering Greater London by charging 100 to 200 euros per day. Using a difference-in-differences (DID) strategy, we find that the initial phase of London's LEZ does not substantially reduce air pollution inside London, while the subsequent phases, on the other hand, generate an 8 to 13 percent reduction of particulate matter and nitrogen dioxide in the extensively treated areas. Triple differences (DDD) estimation suggests in later phases, air pollution reduction has been spilled over to distant locations such Leeds and Liverpool. Further spatial analysis shows that industrial areas, instead of roadside areas, received the majority of air pollution reduction. Combining data from traffic sectors, we discuss and provide evidence for different types of behavioral adjustments in response to the LEZ policy.

Effect of State Income Tax Differentials on Retirement Savings Decisions (with Yanwen Wang)
Abstract:
In the current 401(k) system, retirement contribution decisions are made based on pre-tax income. Yet over two-thirds of retirees express concerns about the impact of tax on their retirement wellbeing. We examine the effect of state income tax differentials on individual retirement savings incentives by exploiting the changes of employees annual average elective contribution rate following a within company relocation across states from 2011 to 2016. Using a propensity score matching (PSM) method, we find that individuals adjust their savings rate based on disposable income instead of pre-tax income. Employees migrating to states with a relatively high income tax rate will significantly decrease their retirement savings. This effect is more salient for younger employees.

Air Pollution Exposure and Fetal Health: Does A Safety Threshold Exist?
Abstract:
This paper estimates the causal impact of fetal exposure to three "criteria air pollutants" on birth weight. I establish a series of hypothetical "safety thresholds" of

air pollution and construct an innovative index called "average pollution degree" (APD) that measures the pollution concentrations above each threshold. Matching individual-level natality data with county-level air pollution in the United States from 1991 to 2008, I find that fetuses are vulnerable to very low concentrations of carbon monoxide (CO), especially during the first and last trimesters of pregnancy. Fetuses are not significantly affected by ozone (O3) and sulphur dioxides (SO2) unless their concentrations rise above certain thresholds. My heterogeneity analysis suggests strong gender and racial disparities in the sensitivity to air pollution. In addition, I find maternal smoking and drinking behaviors may act synergetically with air pollution in fetal development. The fact that even a hypothetical safety threshold lying below the current EPA standards would still generate adverse health outcomes indicates that more restrictive regulation is needed to protect fetal health.

Economic Incentive-Based Substitution on Heterogeneous Good: Evidence from the U.S. Car Allowance Rebate System
Abstract:
This paper uses a hedonic price model to analyze the heterogenous preferences on vehicle attributes using data under the 2009 Car Allowance Rebate System. I focus on the shifts in both the number of vehicles purchased and the attributes of transacted vehicles induced by this federal stimulus. Using simulation results from the hedonic price model, I find that roughly 73 percent passenger car consumers and 82 percent truck consumers are not likely to purchase the same vehicle without the government rebate. I also find evidence that the stimulus has induced consumers to substitute some vehicle attributes toward fuel efficiency attributes (e.g., MPG) to take advantage of the rebate.

Work in progress:
The Other Side of Nudge: Adverse Effect of Default Escalation on Retirement Contributions (with Yanwen Wang)

HONORS

Langton Award for Teaching, University of Washington, 2013-14
Preston Scholarship, University of Washington, Fall 2011
Distinguished Undergraduate Student, University of Iowa, 2010

MEMBERSHIP AFFILIATION

Graduate Fellow, Center for Environmental Politics, University of Washington, 2014-2016
Member, American Economics Association (AEA), 2014-present
Member, Association of Environmental and Resource Economics (AERE), 2014-present
Member, Chinese Economist Society (CES), 2015-present

CONFERENCE PRESENTATIONS

Chinese Economist Society (CES) North America Conference, Sacramento, 2016
PHEnOM Seminar, University of Washington Health Science, 2016
Duck Family Graduate Workshop, University of Washington, 2015

LANGUAGES

English (Fluent), Chinese (Native)

REFERENCES

John Lynch
Ted Andersen Professor
Director of the Center for Research on Consumers' Financial Decision Making
Leeds School of business
University of Colorado Boulder
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