

WEI CHEN

<https://sites.google.com/fordham.edu/weichen>

wchen84@fordham.edu

FORDHAM UNIVERSITY

Office Contact Information

441 East Fordham Road
Bronx, NY 10458
Dealy Hall 545

Home Contact Information

315 West 33rd Street
New York, NY 10001
917-477-9158

Education:

Fordham University, 2016 to present

Ph.D. Candidate in Economics

Thesis Title: “*Essays in Health and Demographic Economics*”

Expected Completion Date: May 2021

Master of Science, Computer and Information Technology, University of Pennsylvania, 2019 to present

Master of Arts, Economics, New Mexico State University, 2012

Bachelor of Arts, Economics, Fujian Agriculture & Forestry University, 2010

Research Fields:

Fields: Health, Labor Economics, Economic Demography, Public Finance

Research Experience and Other Employment:

2020	Max Planck Institute for Demographic Research, <i>Visiting Researcher</i>
2018-2020	The World Bank, <i>Consultant</i>
2021, 2017	The United Nations, <i>Consultant (2021), Research Intern (2017)</i>
2018	Columbia University, <i>Research Intern</i>

Professional Activities:

Contributor	Pivoting to Inclusion: Leveraging Lessons from the COVID-19 Crisis for Learners with Disabilities , The World Bank, 2020
Contributor	UN Flagship Report on Disability and Sustainable Development Goals , 2018
Referee	Social Theory & Health, 2019
	The International Conference on Data Science, Medicine, and Bioinformatics, 2019
Co-Director	University of Pennsylvania MOSA Fellowship Committee

Software & Data Projects:

Voice - A New Feedback for Feedback System, 2020

- Developed web application using Java, Mustache, Postgres, and Heroku to improve workplace feedback for team collaboration.
- Won 1st place & People’s Choice from UPenn MCIT Hackathon, 2020, applied for Berkman Opportunity Fund.

Net Worth Forecaster, 2019

- Created and designed a Java application for user net worth estimation & forecasting. Implemented frontend & client, incorporating real-time pricing data APIs.
- Developed a Python-based time-series and GBDT forecast model with in-sample accuracy of 82%.

New York City Rental Pricing App, 2019

- Built an Android App using random forests to predict rental prices in NYC based on *Streeteasy* data.
- Winner of MCIT Hackathon, 2019 Summer

Insider Trading Social Network, 2018

- Produced and co-authored a research paper on insider trading in China with UPenn Professor Dr. X. Gu, and St. John's Professor Dr. Y. Zhu. Built an extensive insider trading emulation network model.
- Utilized Python, Stata & R to mine and analyze data from 3,500 Chinese public firms, municipal politician activities, macroeconomic indicators, and firm-level financial data.
- Visualized network with over 2 million edges and synthesized conclusions using network analysis and Gephi visualization software.

Publications:

[Health, Work, and Income among Middle-aged and Older Adults: A Panel Analysis for China](#)

with Sophie Mitra, Qin Gao and Yalu Zhang; *The Journal of the Economics of Ageing*, 2020. 17: 100255.

[American Economic Imbalance and Chinese Industrial Restructuring](#)

Times Finance Journal (Chinese publication), 2013. 27.

Research Papers:

[Do Pensions Reduce Debt? Evidence from China's New Rural Pension Scheme.](#) (Job Market Paper)

Abstract: This paper studies the impact of receiving pension payments on debt behavior among older adults, using a natural experiment around China's New Rural Pension Scheme (NRPS), one of the world's largest social pension programs. This paper identifies the causal effect of receiving NRPS payments on debt among older adults in rural China. Using a regression discontinuity and a difference-in-differences (RD-DID) research design and three waves of the China Health and Retirement Longitudinal Survey (CHARLS), I find that the introduction of the NRPS reduced debt among older adults, and increased their ability to shield themselves against shocks, especially for those with lower socioeconomic status. My findings indicate that receiving NRPS payments has a significant negative impact on debt, although it is modest in size and is observed for formal debt only. This finding is consistent with the life-cycle hypothesis, which suggests that receiving cash payments increases income, and thereby reduces borrowing and indebtedness. However, this result is not consistent with the literature on pension schemes or cash transfers in developing countries, which suggests that receiving such payments should lead to a decline in informal debt. I provide potential explanations for this discrepancy, including psychology effects, a substitution between debt and consumption, credit constraints, and bequeathing considerations. These findings have important implications for pension programs and cash transfers in countries with a relatively weak safety net.

[Covid-19 and the Future of US Fertility: What Can We Learn from Google?](#)

with Joshua Wilde, and Sophie Lohmann; *IZA Working Paper*, 2020. DP No. 13776.

Media Coverage - ([The Economist](#), [Le Monde](#), [Center for Economic and Policy Research](#), [The Atlantic](#), The BBC, The Telegraph, and IZA Institute of Labor Economics)

Abstract: We use data from Google Trends to predict the effect of the COVID-19 pandemic on future births in the United States. First, we show that periods of above-normal search volume for Google keywords relating to conception and pregnancy in US states are associated with higher numbers of births in the following months. Excess searches for unemployment keywords have the opposite effect. Second, by employing simple statistical learning techniques, we demonstrate that including information on keyword search volumes in prediction models significantly improves forecast accuracy over a number of cross-validation criteria. Third, we use data on Google searches during the COVID-19 pandemic to predict changes in aggregate fertility rates in the United States at the state level through February 2021. Our analysis suggests that between November 2020 and February 2021, monthly US births will drop sharply by approximately 15%. For context, this would be a 50% larger decline than that following the Great Recession of 2008-2009, and similar in magnitude to the declines following the Spanish Flu pandemic of 1918-1919 and the Great Depression. Finally, we find heterogeneous effects of the COVID-19 pandemic across different types of mothers. Women with less than a college education, as well as Black or African American women, are predicted to have larger declines in fertility due to COVID-19. This finding is consistent with elevated caseloads of COVID-19 in low-income

and minority neighborhoods, as well as with evidence suggesting larger economic impacts of the crisis among such households.

Loyalty, Cooperation and Perks: Insider Trading in a Harmonious Society

with Xian Gu, Iftekhar Hasan and Yun Zhu

Abstract: Using a comprehensive overview of insider trading and its enforcement in China, this paper explores the relationship between political networks and insider trading. In contrast to Western countries, where political connections encourage insider trading through reducing litigation risk, we find that in China — a “harmonious society” that values loyalty, implicitness, reciprocity, and cooperation — firms with strong political networks are less likely to use insider trading to preserve political favor if that political favor is more lucrative than insider trading. On the other hand, consistent with the literature, when firms do trade on inside information, the information advantages from political connections lead to higher capital gains.

Temperature, Sexual Behavior, and the Internet: What Can We Learn From Google Searches?

with Joshua Wilde, Zoe McLaren and Sophie Lohmann

Abstract: In this paper, we use data from Google Trends to estimate the effect of temperature on a set of sexual and mate-seeking keywords. We find that high temperatures increase searches for pornography but suppress searches for online dating services, while cold temperatures do the opposite. This is consistent with substitution between activity based on temperature -- when it is hot, people prefer sexual and mate seeking activities which are more solo, while when it is cold they prefer to seek out another person. We also find dynamic effects for online dating searches, but not pornography. We find no difference across US regions, but we do find that our results are driven by rich states, which are more likely to have higher levels of internet penetration.

Research Papers in Progress:

Endowment analytics for US wealthiest universities by Machine Learning

with Henry Han and Joseph Scuzzero

Abstract: Endowment plays an increasingly important role in higher education today. However, evaluating university endowment usage is a challenging analytics problem due to the lack of applicable methods. In this study, we propose a novel data-driven endowment analytics approach to build an intelligent machine learning system. The aim is to answer the query: does a university use its endowment wisely to enhance its academic ranking? The proposed machine learning system is built upon extremely random forest trees using data mined and integrated from heterogeneous information sources. To the best of our knowledge, this study is the first work that provides a genetic and robust endowment usage evaluation from a machine learning viewpoint. Unlike general assumptions, our analytics results suggest that rich private liberal art colleges tend to have a high risk to misuse their endowments than public universities.

Invisible? People with Disabilities in Household Surveys and Censuses in Low- and Middle-Income Countries

with Sophie Mitra, Justine Hervé, Sophia Pirozzi and Jaclyn Yap

Abstract: This paper examines the extent to which general household surveys and censuses in the global south include disability questions that can be used to assess the situation of persons with disabilities. Survey and census questionnaires were retrieved from the online International Household Survey Network Microdata catalog, the World Bank Microdata Library catalog, the International Labor Organization survey catalog, the repository of census questionnaires maintained by the United Nations Statistics Division, and the websites of individual National Statistical Offices. The resulting pool included 629 datasets and 1,166 dataset-years and censuses from 132 countries in the global south from 2009 to 2018. Each of the 1,166 dataset-years was screened for disability questions, which were classified by type of questions: Washington Group (WG) short set of questions, similar to the WG short set, broad activity limitation questions, questions on activities of daily living, general disability question and other types of disability questions.

Overall, out of 1,166 dataset-years, only 293 had a disability question of any kind, so about one in four of the datasets under review had at least one disability related question. Only 38 of these 1,166 dataset-years had the WG short set and 72 had similar questions. The most commonly found disability question is the single question “Do you have a disability?” in 95 dataset-years, which does not produce meaningful and internationally comparable data on disability. The adoption of the WG short set in international surveys such as FINDEX and LSMS would start the data revolution that is needed to measure progress towards inclusive development and to monitor the implementation of the post-2015 development agenda as well as the Convention on the Rights of Persons with Disabilities. Such data is needed to assess whether people with disabilities are left behind or if they have proper opportunities and human rights.

Inclusive Statistics: Human Development and Disability Indicators in Low- and Middle-income Countries

with Sophie Mitra, Justine Hervé, and Jaelyn Yap

Abstract: The lack of data and statistics on disability may in part be responsible for the lack of attention to disability in human development, but awareness of the need for data and the tools to collect disability data have improved. This paper disaggregates human development indicators across disability status to assess the situation of persons and households with disabilities and disability related inequalities and to facilitate future monitoring and research. It aims to contribute to Sustainable Development Goal target 17.18 “to increase the availability of data disaggregated by disability”. This paper adopts a systematic approach to measuring disability and human development indicators. It compiles human development statistics disaggregated across disability status for 25 censuses and general household surveys from 22 low- and middle-income countries. Disability status is measured through self-reports of functional difficulties (e.g. difficulty seeing, hearing) as per the Washington Group Short Set or questions deemed similar. Statistics are comparable across disability status within a country and to a large extent across countries. This paper has several findings of interest. First, disability is not rare in low- and middle-income countries. The median prevalence stands at 12% among adults age 15 and older, and at 26% among households. Seeing and walking difficulties are the most common functional difficulties. There are consistent inequalities associated with disability, in particular with respect to educational attainment, employment outcomes, poverty, food security, exposure to shocks, living conditions and assets. At the same time, not all persons with functional difficulties experience deprivations, even in resource poor settings. There is a gradient in inequalities associated with disabilities with the degree of self-reported functional difficulty: persons with at least a lot of difficulty in one functional domain tend to be worse off than persons with some difficulty, who themselves tend to be worse off than persons with no difficulty.

Teaching Experience:

2018-2020	Basic Macroeconomics, Fordham University, <i>Instructor</i>
2019-2020	Global Social Policy, Columbia University, <i>Guest Lecturer</i>
2017	Financial Econometrics, Fordham University, <i>Teaching Assistant</i>

Honors, Scholarships, and Fellowships:

2020	Research Fellowship at Max Planck Institute
2020	1 st place & People’s Choice from UPenn Winter Hackathon
2019	1 st place of UPenn Summer Hackathon
2019	Graduate Summer Research Fellowship, Fordham University
2016	Davidson Endowed Scholarship (10% acceptance)

References:

Professor Sophie Mitra

Fordham University
718-817-5337, mitra@fordham.edu

Professor Qin Gao

Columbia University
212-851-2227, qin.gao@columbia.edu

Dr. Joshua Wilde

Max Planck Institute for Demographic Research
+49 1411-4200-674, wilde@demogr.mpg.de

Dr. Subha Mani

Fordham University
718-817-3518, smani@fordham.edu