Stony Brook University

Department of Economics
Social & Behavioral Sciences
Stony Brook, NY 11794-4384

TEL: 631.632.7527
FAX: 631.632.7516

November, 2019

To: RECRUITMENT COMMITTEE OR OFFICER

Re: Stony Brook University Job Market Candidates for 2020 ECONOMICS Positions

Dear Colleagues:

I am enclosing a summary listing of our doctoral candidates who expect to receive their degree in 2020 and who seek positions that begin in the summer or fall of that year. I am including their CV and research statements.

You can find additional information about our job market candidates at our website https://www.stonybrook.edu/commcms/economics/people/job-market-candidates.phpl

Our students plan to attend the American Economic Association meetings in San Diego, California and interviews should be arranged with them directly.

Should you wish to come to Stony Brook University to interview, kindly provide us with a list of students you wish to see, the desired length of each interview and the expected dates of your stay on campus.

Please email for additional information on any of our students seeking positions.

Sincerely,

Marina Azzimonti
Placement Director
Email: marina.azzimontirenzo@stonybrook.edu
Stony Brook University
Department of Economics
S-607 Social & Behavioral Sciences
Stony Brook, New York 11794-4384

NINGNING GUO

https://sites.google.com/stonybrook.edu/niguo

E-mail: ningning.guo@stonybrook.edu

STONY BROOK UNIVERSITY

Office Contact Information

Economics Department
Stony Brook University
Social and Behavioral Sciences Building
Stony Brook, NY 11794, USA.
Phone: +1 (631) 576-9243

Education

Ph.D. in Economics, Stony Brook University, USA, 2020 (expected).
M. A. in Economics, Stony Brook University, USA, 2015.
M. A. in Economics, National Cheng Kung University, Taiwan, 2014.
B.S. in Applied Physics, Northwestern Polytechnical University, China, 2012.

Research Fields

Labor Economics, Public Economics, Urban Economics, Applied Econometrics.

Working Papers

- "Hollowing Out of Opportunity: Automation Technology and Intergenerational Mobility in the United States," 2019 (**Job Market Paper**).

Work In Progress

- "Rise of the Business Service Sector and Within-Occupational Wage Inequality."
- "City Specialization and Intergenerational Mobility."

Teaching Experience

- Instructor at Stony Brook University
  - Fall 2018 Labor Economics (undergraduate)
  - Summer 2019 Labor Economics (undergraduate)
  - Fall 2019 Labor Economics (undergraduate)
- Teaching Assistant at Stony Brook University
  - Spring 2016 Introduction to Economics (undergraduate)
  - Fall 2016 Microeconomics I (graduate)
  - Spring 2017 Microeconomics II (graduate)
  - Summer 2017 Intermediate Microeconomics (undergraduate)
  - Fall 2017 Econometrics (undergraduate)
  - Spring 2018 Introduction to Economics (undergraduate)
  - Spring 2019 Applied Microeconomics (undergraduate)
  - Summer 2019 Intermediate Microeconomics (undergraduate)

Fellowships, Scholarships, and Awards

- Graduate Fellowship, Stony Brook University, 2016-2019.

Others

- Languages: Chinese (native), English (fluent), Japanese (basic).
- Computer Skills: R, Stata, MATLAB

References

Professor Hugo Benitez-Sliva (Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7551
E-mail: hugo.benitez-silva@stonybrook.edu

Professor David Wiczer (Co-Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (847) 830-2725
Email: david.wiczer@stonybrook.edu

Professor Juan Pantano
Department of Economics
University of Arizona
Tucson, AZ 85721, USA.
Phone: +1 (520) 621-4560
E-mail: jpanta@email.arizona.edu

Hollowing Out of Opportunity: Automation Technology and Intergenerational Mobility in the United States

(Job Market Paper)

Recent automation technology has lead to *job polarization* by skill requirements in the U.S. labor market since 1980. Middle-skill jobs, which provide decent wages for relatively uneducated people, have been shrinking in terms of employment share, pushing those workers into low-wage service jobs. In this paper, by exploiting spatial variation in the exposure to technological substitution, I show automation technology has considerably reduced the upward mobility of children from poor and middle-class families and increased their downward mobility. As an example, holding other things equal, children living in areas with the exposure at 75th percentile are 1.24% less likely to move from the bottom quintile to the top quintile than the children in areas with the exposure at 25th percentile, compared with the national average probability 7.5%. My analysis suggests that middle-skill jobs are an indispensable channel for disadvantaged children to move upward. In addition, this paper provides a plausible explanation for the puzzling observation that relative mobility has stayed constant in the U.S. during recent decades, despite the rapidly increasing income inequality.

RESEARCH STATEMENT

NINGNING GUO
STONY BROOK UNIVERSITY
https://sites.google.com/stonybrook.edu/niguo/
ningning.guo@stonybrook.edu

My research concentrates on the intersection of labor and public economics. I am interested in the distributional implications of labor market changes, especially those on the labor demand side, such as technological change. I use micro data and applied-micro methodology (reduced-form and structural modeling) to examine the effects of aggregate trends. Among other issues, I find it particularly fascinating and imperative to understand the implications of an increasingly "winner-take-all" labor market, and my research up to now centers on it.

My job market paper, "*Hollowing Out of Opportunity: Automation Technology and Intergenerational Mobility in the United States*", examines the distributional effects of technology from an intergenerational perspective. Recent automation technology has lead to *job polarization* by skill requirements in the U.S. labor market since 1980. Middle-skill jobs, which provide decent wages for relatively uneducated people, have been shrinking in terms of employment share, pushing those workers into low-wage service jobs. In this paper, by exploiting spatial variation in the exposure to technological substitution, I show that automation technology has considerably reduced the upward mobility of children from poor and middle-class families and increased their downward mobility. As an example, holding other things equal, children living in areas with the exposure at 75th percentile are 1.24% less likely to move from the bottom quintile to the top quintile than the children in areas with the exposure at 25th percentile, compared with the national average probability 7.5%. My analysis suggests that middle-skill jobs are an indispensable channel for disadvantaged children to move upward. In addition, this paper provides a plausible explanation for the puzzling observation that relative mobility has stayed constant in the U.S. during recent decades, despite the rapidly increasing income inequality.

In on-going work, I explore the distributional effects of the rise of business services. The increasing use of outside business services (i.e. outsourcing) reallocates economic activities from within-firm to the market. As for service providers, this generates a larger market as well as more intense competition. As a result, winners (more-skilled workers) tend to increase their advantage over losers (less-skilled workers). I hypothesize that this mechanism accounts for the increasing within-occupational inequality among business service providers. I construct a structural model to quantify this effect and estimate it using a UK matching employer-employee dataset (Workplace Employment Relations Study, WERS).

I'm also working on using city specialization to explain the geographic pattern of mobility. I find that children living in big cities are less upward mobile than their peers in small cities, and area density alone accounts for 33% of the total variation in mobility. I assume cities have exogenous comparative advantage, which relates to city size—for example, big cities have the comparative advantage in attracting activities rewarding high skills (e.g. knowledge-based ones), while small cities have the comparative advantage in middle-skill-intensive activities (e.g. manufacturing). This generates different structures of skill returns for cities with different sizes (skill returns are more skewed in large cities). I hypothesize that this drives the relationship between city size and mobility.

Going forward, I will continue to explore the issues concerning income distributions and labor demand, while emphasizing the role of geographic constraints. For example, I want to understand the "trickle-down" effects and how the presence of wealthy people in a local market helps to improve the welfare of others. The literature (e.g. Moretti 2010) has attempted to estimate the quantity of non-tradable jobs generated by new tradable jobs (e.g. in innovative high-tech sectors). I want to further investigate the composition (in terms of skill requirements and wages) of these jobs and what we could do to improve income distribution through this channel.

TEACHING STATEMENT

Ningning Guo

Stony Brook University

https://sites.google.com/stonybrook.edu/niguo/

ningning.guo@stonybrook.edu

During the last several years in Stony Brook University, I have accumulated rich experience in teaching. As an independent instructor with full responsibility, I taught undergraduate Labor Economics three times. I also acted as TA for courses including Microeconomics (graduate), Econometrics, Introduction to Economics, Intermediate Microeconomics, and Applied Microeconomics (undergraduate). Through the study and teaching practice in my Ph.D program, I have developed a strong background in Microeconomic Theory, Labor Economics and Applied Econometrics, and I am particularly well qualified to teach both undergraduate and graduate courses in these fields. I am also fully prepared to teach courses on Econometric Theory and various applied economic fields (e.g., IO, Public and Urban Economics) at the undergraduate level. Nonetheless, I would be happy to teach any other course that the department needs.

Before each class, I always prepare carefully not only what to present, but also how to present it. I usually think very hard about the best way to motivate my students. I want them to fully understand the importance and usefulness of a notion or a method before they are exposed to esoteric technical details. This turns out to be an effective way to make them feel interested and learn better. For example, when I was teaching Nash Equilibrium, I first spent a considerable amount of time explaining why we need this tool for some problems (those involving strategic interactions), or why we cannot just go with some more basic ones such as competitive market models. In addition, I try to make everything as intuitive as possible. This is particularly important for abstract courses such as Econometrics. Once I told my students that the key idea of an instrumental variable is to isolate the "clean" part of variations (not correlated with the error term), they could immediately make sense of the math of 2SLS method themselves.

After the discussion of a topic, I typically emphasize the limitations of its theories and/or empirical methodology. I want to help my students to realize that most economic studies are only approximations of the real world. Whether their conclusions are useful (or reliable) well depends on whether those approximations make sense. For example, while the standard frictionless partial-equilibrium models could explain the impacts of exogenous changes of demand and supply, it has no explanatory power for unemployment, as market clearing is a terrible approximation in this case. By doing so, students learn that although economic tools are sharp and powerful, they cannot be overused.

I enjoy the intellectual interactions with my students. My door is always open, and I even encourage students to interrupt me. This is partly because I often find that I can benefit from the discussions with them for my own understanding of economics. By the same token, I like to praise those who raise a question during my lectures. Because that not only is a great chance to clarify the materials for the them, but also helps myself to check whether I have been thinking that problem thoroughly. In this sense, I not just teach them, I also learn from them.

In the future, I will apply my teaching philosophy to whatever courses I teach. I want to help my students develop a broad set of skills that include not only those that are closely related to this discipline (e.g., proper statistical and econometric methods), but also some more general ones such as critical thinking.

ROHITASH KUMAR

https://sites.google.com/view/rohitashkumar/home
E-mail: rohitash.kumar@stonybrook.edu

Stony Brook University

Office Contact Information

Economics Department
Stony Brook University
S630 Social and Behavioral Sciences Building
Stony Brook, NY 11794, USA.
Phone: +1 (631) 538-6416

Education

Ph.D in Economics, Stony Brook University, USA, 2014-2020 (expected).
M.S in Quantitative Economics, Indian Statistical Institute, New Delhi, 2010-2012.
B.Tech in Mechanical Engineering, Indian Institute of Technology, Roorkee, 2005-2009.

Research Fields

Game Theory, Mechanism Design, Information Economics, Ad-Auctions

Working Papers

- "The Optimal Number of Positions in The Sponsored Search Auction," 2019 (**Job Market Paper**).

Work In Progress

- "The Multi-Unit Auction With Synergy and Correlated Valuation," 2019.

Teaching Experience

- Instructor at Stony Brook University (Spring 2017 - Fall 2019)
  - Introduction to Economics (undergraduate)
  - Public Finance (undergraduate)
- Online Instructor at Stony Brook University (Summer 2017 - Summer 2019)
  - Introduction to Economics (undergraduate)
  - Analysis for Managerial Decision Making (undergraduate)
- Teaching Assistant at Stony Brook University (Fall 2014 - Spring 2016)
  - Introduction to Economics (undergraduate) – Professor William Dawes
  - Intermediate Microeconomic Theory (undergraduate) – Professor Hugo Benitez-Silva

Fellowships, Scholarships, and Awards

- Graduate Fellowship, Stony Brook University, 2014-2019.

Others

- Languages: English, Hindi
- Computer Skills: Latex, Matlab, Python, C++

References

Professor Sandro Brusco (Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-1167
E-mail: sandro.brusco@stonybrook.edu

Professor Yair Tauman
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7557
Email: yair.tauman@stonybrook.edu

Associate Professor Ting Liu
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7532
E-mail: ting.liu@stonybrook.edu

The Optimal Number of Positions in the The Sponsored Search Auction

(Job Market Paper)

This paper addresses the question of whether it is optimal (revenue maximizing) to sell the maximum number of available positions on the ad auction used by search engines. Most of the literature assumes that clicks received on a specific position are independent of the identity of the winner as well as the number of available positions. These assumptions imply a search engine should sell the maximum number of available ad positions, which is not the case at least for Google. I relax both these assumptions and compute Perfect Bayesian Equilibrium in two commonly used ascending price auctions: generalized second-price auction (GSP) and generalized second revenue auction (GSR). I find that revenue generated in the GSP is higher than the GSR. In both GSR and GSP, if bidder's valuations per click are close to each other, then the search engine should sell more positions and vice versa.

The Multi-Unit Auction With Synergy and Correlated Valuation

This paper analyzes the problem faced by a bidder in a two-bidder setting, where the bidder is simultaneously bidding for two heterogenous licenses A and B in the multi-unit auction with synergy. The bidder desires to win both permits to enjoy synergies; therefore, he bids more than his stand-alone valuation for at least one of the licenses or both, depending upon the type of auction format. We study two different types of auction formats, sealed-bid auction, and ascending price auction. In the context of the sealed-bid auction, we show that the Symmetric Bayesian Nash Equilibrium (SBNE) exists when synergy value is significant. In ascending price (dynamic) auction, we determine SBNE and show that when both players enjoy synergy compared to the scenario where only one player enjoys synergy, the magnitude of exposure is increased.

RESEARCH STATEMENT

ROHITASH KUMAR

STONY BROOK UNIVERSITY

https://sites.google.com/view/rohitashkumar/home

rohitash.kumar@stonybrook.edu

I am working in auction theory, more precisely in ad auctions. My research originated when I observed that Google is selling fewer ads compared to its competitors but still earning substantially higher revenue, which is contrary to existing sponsored search literature. At the same time, competitors like Yahoo and Bing are selling more ads but earning significantly less revenue. I felt the need for an alternative hypothesis, which can explain why a revenue-maximizing search engine should not sell maximum ads. My paper's conclusion align with the observation that if the advertiser's valuations are close to each other, then we observe more ads. If there are two or three firms whose valuation per click is significantly higher than the rest of the firms, we see fewer ads. This research is significant because presently, a lot of websites bombard consumers with ads despite consumers being averse to numerous ads to increase revenue.

My job market paper addresses the question of whether it is optimal (revenue maximizing) to sell the maximum number of available positions on the ad auction used by search engines. Most of the literature assumes that clicks received on a specific position are independent of the identity of the winner as well as the number of available positions. These assumptions imply a search engine should sell the maximum number of available ad positions, which is not the case at least for Google. I relax both these assumptions and compute Perfect Bayesian Equilibrium in two commonly used ascending price auctions: generalized second-price auction (GSP) and generalized second revenue auction (GSR). I find that revenue generated in the GSP is higher than the GSR. In both GSR and GSP, if bidder's valuations per click are close to each other, then the search engine should sell more positions and vice versa.

My second paper analyzes the problem faced by a bidder in a two-bidder setting, where the bidder is simultaneously bidding for two heterogenous licenses A and B in the multi-unit auction with synergy. The bidder desires to win both permits to enjoy synergies; therefore, he bids more than his stand-alone valuation for at least one of the licenses or both, depending upon the type of auction format. We study two different types of auction formats, sealed-bid auction, and ascending price auction. In the context of the sealed-bid auction, we show that the Symmetric Bayesian Nash Equilibrium (SBNE) exists when synergy value is significant. In the ascending price (dynamic) auction, we determine SBNE and show that when both players enjoy synergy, the magnitude of exposure problem increases compared to the scenario where only one player enjoys synergy.

My next project is to study the possibility of collusion in sponsored search auctions. In sponsored search auctions, if every bidder starts decreasing her bid after some understanding with adjacent bidders without losing the current spot, then all the bidders can benefit at the expense of the search engine. Whether the search engine can mitigate the problem of collusion using reserve prices or using another auction format like third price auction.

In the future, I plan to research in the field of information economics using auction theory. For example, whether it is optimal for websites (like newspapers, Facebook, Instagram..etc.) to charge a fixed monthly fee to its regular customers and remove ads. I am also interested in understanding consumer's online shopping behavior using the information and behavioral economics.

TEACHING STATEMENT

ROHITASH KUMAR

STONY BROOK UNIVERSITY

https://sites.google.com/view/rohitashkumar/home

rohitash.kumar@stonybrook.edu

As a junior year science student, I always felt the immense need for skilled teachers, primarily because Indian Government schools are notoriously infamous for nonexistent teachers. After senior year, I joined coaching classes to prepare for the Joint Entrance Exam (JEE), which is considered one of the toughest examinations in the world. During preparation for the JEE, the importance of teaching moved me so much that I became a lecturer of Physics and Mathematics after completing B.Tech in Mechanical Engineering and taught Physics and Mathematics for four years in coaching classes before joining the Ph.D. program.

During the preparation of JEE, I was a mediocre and diffident student surrounded by brilliant achievers. Very soon, I realized that learning and solving problems were not identical. I learned the most from the problems that I was unable to answer, each unsolved problem taught me whether I didn't understand the problem, or I misunderstood a specific concept, or I didn't understand the material properly. I also learned during this period that every discipline has its own language; for example, Chemistry was very different than Physics or Mathematics. In Physics and Mathematics, principals determined results, whereas in Chemistry first results of chemical reaction were observed, and then a suitable principal was picked to explain the outcome. All these experiences made me a good teacher, and I was able to pinpoint the area where struggling students needed to work precisely.

Teaching Economics further enriched my ability as a teacher. I found that explaining real-world phenomena using simple economic principals piqued student's interest in the subject. In India, I used to teach students who were preparing for the cutthroat competition, and most of them were very diligent. On the contrary, Stony Brook students consist of various categories; for example, some are lazy but smart, some very hard working but not getting results. I discovered that keeping an eye on poor performing students helps to nudge them to take the course seriously. Some students make the mistake of copying assignments before submission and understand solutions to prepare for exam. Recognizing almost perfect scores in assignments but poor performance in exams, when I explain the phenomenon to students that understanding assignments are not equivalent to solving them, it helps in improving their performance.

Another area where I struggled initially was balancing the depth of the material taught in class. Some students feel the level is too hard, where others think the course is too easy; teaching assistant in recitation can play a significant role in providing an extra layer of material. I have also taught two online courses; online teaching was a very different and new experience for me.

As somebody who struggled a lot during school years and wasted a lot of time figuring out inefficiencies in learning techniques, teaching gives me immense satisfaction. Every class that I teach adds more to my understanding of the material; every student with their queries helps me to improve my teaching style. I love teaching Economics because students can discuss real-world issues with their family and friends and impress them by offering insights; doing so makes them feel proud, which in turn makes me feel proud.

References

Alexis Anagnostopoulos
Undergraduate Program Director
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7526
E-mail: alexis.anagnostopoulos@stonybrook.edu

Hugo Benitez-Silva
Graduate Program Director
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7551
Email: hugo.benitez-silva@stonybrook.edu

Ramiro A. Malaga Ortega

https://sites.google.com/site/ramiromalagaortega/

E-mail: ramiro.malagaortega@stonybrook.edu

STONY BROOK UNIVERSITY

Office Contact Information

Economics Department
Stony Brook University
Social and Behavioral Sciences Building
Stony Brook, NY 11794, USA.
Phone: +1 (631) 576-6888

Personal Information: F1 visa.

Education

Ph.D. in Economics, Stony Brook University, USA, 2011-2019.
M. Sc. in Applied Mathematics, Pontificia Universidad Catolica del Peru, Peru, 2003-2005.
B.A. in Social Sciences with mention in Economics, Pontificia Universidad Catolica del Peru, Peru, 1998-2000.

Research Fields

Labor Economics, Human Capital,Health Economics, Applied Econometrics.

Working Papers

- "The Relationship Between Income and Stressful Life Events: The Emotional Capital", 2019 (**Job Market Paper**).
- "Extreme-Event Disasters in Latin America: Lessons from DESINVENTAR." (with Mark R. Montgomery), 2017.

Work In Progress

- "Stressful Life Events and Emotional Capital.", 2019.

Local Publications

- "The Dynamics of Peruvians who do not study or work: who they are, how they are doing and how they have changed" Apuntes, Vol. 44 Number 80 Research Center Universidad Del Pacífico. 2017 (with Tilsa Ore and Jose Tavera)
- "Youth who neither work nor study: The Peruvian case", Revista Economía, Vol.37 Number 74, Department of Economics Pontificia Universidad Católica del Peru. 2014 (with Tilsa Ore and Jose Tavera)

Teaching Experience

- Instructor at Stony Brook University (2011 - 2018)
  - Health Economics (undergraduate)
  - Corporate Finance (undergraduate)
  - Public Finance (undergraduate)
  - Intermediate Microeconomic Theory (undergraduate)

  - Introduction to Economics (undergraduate)
- Instructor at SUNY Old Westbury (2015)
  - Health Economics (undergraduate)
- Teaching Assistant at Stony Brook University (2011 - 2018)
  - Microeconomics II (graduate) – Professor Pradip Dubey
  - Econometrics (undergraduate)

Fellowships, Scholarships, and Awards

- Graduate Fellowship, Stony Brook University, 2011-2017.
- Open SUNY Online Teaching Ambassador 2018 for "Exemplary Online SUNY Educator".
- Online Teaching Summer Award 2016 Grant.
- William Dawes Teaching Award for outstanding and overall best performance by an instructor in the Department of Economics at Stony Brook University. 2015.
- International Labor Organization (ILO) - Research grant 2014
- Fellowship from the Department of Economics (PUCP) to follow the Graduate Program in Mathematics (PUCP). Years 2002-2005.
- Small Grant from the Economic and Social Research Consortium of Peru (CIESACDI-IDRC), Years 2004-2005.

Others

- Languages: English, Spanish (native), French (intermediate)
- Computer Skills: Stata, R, ArcGIS, SQL, and Microsoft Office

References

Professor Hugo Benitez-Silva (Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7551
E-mail: hugo.benitez-silva@stonybrook.edu

Professor Cesar Martinelli
Department of Economics
George Mason University
Fairfax, VA 22030, USA.
Phone: +1 (703) 993-4853
Email: cmarti33@gmu.edu

Assistant Professor David Wiczer
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
E-mail: david.wiczer @stonybrook.edu

Associate Professor Frank W. Heiland
Austin W. Marxe School of Public and Int. Affairs
Baruch College CUNY
New York, NY 10010, USA.
E-mail: frank.heiland@baruch.cuny.edu

The Relationship Between Income and Stressful Life Events:The Emotional Capital

Keywords: Labor Supply, Human Capital, Economics of Gender, Family Structure, Returns to Education.
JEL Classification: J22, J24, J16, J12, I26.

Abstract:

In this paper, I propose a measure of exposure to life-changing events that I call Emotional Capital Score (ECS), calculated from the aggregation of successive stressful life events (SLE) during an individual's lifetime. The ECS can explain part of the variation of wage income and could serve as an innovative tool for those who analyze and assess demographic characteristics. The ECS was estimated using a sample of the Panel Study of Income Dynamics (PSID) from1968 to 2015. I included the ECS in a Mincer equation, and I found evidence that suggests that previous exposure to stressful life events can reduce the severity of the adverse effects of new SLE, becoming a form of human capital that I call Emotional Capital. It was orthogonal to other measures of human capital like the years of education or the potential experience, suggesting the Emotional Capital is associated to the adaptation to changing situations during the lifetime of a person.

RESEARCH STATEMENT

Ramiro A. Malaga Ortega
Stony Brook University
https://sites.google.com/site/ramiromalagaortega/
ramiro.malagaortega@stonybrook.edu

My research philosophy, which impacts my quantitative approach to both my research and teaching, and consists of three main pillars: cooperation based on specialization, modeling based on understood natural or social phenomena, and innovation via the selection of tools, data, and methods not previously explored.

1. The first pillar, cooperation based on specialization, emphasizes the value and advantages of working with others who are well-versed in, and passionate about, the same area of study; applying this, in practice, I strive to develop relationships with coauthors who have abilities and knowledge expertise that complement my own.

2. The second pillar, modeling, relates to the repetitive and stratified nature of reality that deep learning exploits (Lin et al., 2017), that most natural and social phenomena tend to repeat the same time evolving solutions and being for that reason similar. For example, a natural ecosystem has some characteristics in common with a firm ecosystem. It is easier to model the second if the first is already well understood.

3. The third pillar focuses on finding straightforward ways to make novel contributions to a field of interest. To obtain innovative results, we need to apply innovative approaches, such as new data sets, alternate approaches to existing data, using new theoretical frameworks, or original methods of estimation or measuring the phenomena of interest.

I used this approach for my dissertation, using my quantitative expertise and the help of my committee for those areas in which I need to improve. I choose a novel topic, my research focused on stressful life events; while there is over fifty years of research in psychology literature on this topic, my dissertation made a link to human capital literature, contributing to economic literature in this subject area, which is otherwise lacking. I used the entire PSID to track people from 1969 to 2015 and estimated more than sixty variables for the individuals in the panel.

From October 2019 to June 2020 I will be working at the World Bank as an economic consultant, after which I aim to start a job in academia. At the World Bank I use information from household surveys to make census data projections, estimating parameters at the district level. To accomplish this, I use a statistical technique referred to as "small area estimation"; I explore improvements to these estimations by reducing the variance of the estimators. For that, I plan to use deep learning techniques to reduce the dispersion of the estimates. I am confident this will be a valuable opportunity to apply my quantitative expertise, and ability to work with intricate and complex data sets and to learn a new statistical technique.

Currently, I am working on multiple research projects. I am preparing my dissertation for publication, updating the data set to include the last wave available of the PSID (2017) that was not ready by the time of my defense. Along with a Peruvian coauthor, I am also working on estimating the effect of a public program that involved forced sterilization on Peruvian women between 1994 and 1997, using the censuses (1993 and 2007) and household surveys to correct for mortality, migration, and changes in fertility not associated to the forced sterilization. Furthermore, with another coauthor, I am working on a game theory model of optimal monitoring when it is possible to distinguish if the actions of the monitoring agent can be of two types: one that sends a signal observable to the monitored agent and one that cannot. This simple setup, when we let the cost and the precision of monitoring to vary, is the basis for many real situations like the one an anti-air radar defense or an antitrust agency.

Once I started working in an academic job, I want to develop a theoretical model of human capital that explains how humans learn to adapt to changing conditions. I will complement this model with an empirical estimation of the effects of changing conditions (stressful life events) on the use of the time inside the household by using the American Time Use Survey (ATUS). With Hugo Benitez-Silva, my advisor, we are going to apply for a grant focused on retirement research, building a model that measures how retirees cope with stressful life events.

My intellectual curiosity on applied topics is related to my continued exploration of the process of adaptation and the use of time inside a household for different subpopulations, I think that there are interesting data sets that could be explored and that some years ago were not available.

Another empirical question of interest is the magnitude of fraud and the inefficiency of the American healthcare system. While I was teaching Health Economics, I was surprised with how big the healthcare industry is (19% of the US GDP or $4000 billion) and the proportion of fraud (10% according to The Economist) or the proportion of waste (between 20% and 40%, depending on who made the estimation).

In the foreseeable future, my intellectual curiosity on theoretical economics is focused on two topics: the problem of individual consciousness from an economic point of view, and how to measure bargaining power in social setups. I already started working with the first by exploring, in my dissertation, the idea of a human capital related to adaptation, in contrast to the usual approach of a human capital associated with a specialized job in the market. I conjecture that it could be possible to develop a scalable mathematical definition of consciousness, which could eventually be tested experimentally, to explain different levels of self-awareness in humans or agents, in general. The problem of measuring bargaining power has profound implications in topics like the mutually assured destruction doctrine, and I am curious about how to measure and explain power in social setups.

References:

- Lin, H.W., Tegmark, M. Rolnick, D. J Stat Phys (2017) 168: 1223. https://doi.org/10.1007/s10955-017-1836-5
- https://www.economist.com/united-states/2014/05/31/the-272-billion-swindle

TEACHING STATEMENT

Ramiro A. Malaga Ortega
Stony Brook University
https://sites.google.com/site/ramiromalagaortega/
ramiro.malagaortega@stonybrook.edu

Teaching others has been a core component of my own academic journey. My first experience leading a classroom cohort was during my undergraduate studies, in a teaching assistant role for an introductory economics course; I continued to hold instructional roles throughout my academic career in a variety of subjects including Econometrics, Data Analysis, Macroeconomics, and Microeconomics at the Pontificia Universidad Catolica del Peru (PUCP), Health Economics at SUNY Old Westbury, and Health Economics, Corporate Finance, Public Finance, Intermediate Microeconomics, Introduction to Economics and Microeconomics II, at Stony Brook University. The majority of courses for which I lead or supported instruction were conducted face-to-face, however, I do have experience teaching online and blended courses, as well.

I was fortunate to have had many outstanding professors who taught me the beauty of balancing a love for both teaching and research. They showed me that research does not have to compete with teaching; on the contrary, both activities can interact and complement one another. Furthermore, they exemplified the idea that both passions are fueled by mentorship. I experienced the value and power that a great mentor can have on your growth both as a researcher and an instructor, as well as the idea that being a mentor to others is an important part of the legacy we leave in our field, as professionals in academia. I experienced such inspiration from Hugo Benitez-Silva, my advisor, a genuine, authentic and exemplary professor, who, in turn, learned it from John Rust, his advisor.

The framework of my teaching philosophy is built off of these experiences and influences, and can be best summarized within the following five key points:

1. *Justice must be a central value in the classroom.* The entirety of a course execution process, from designing to deploying to evaluating, needs to not only be just in its intentions, but also *perceived* as just by all the stakeholders of the course.

2. *Learning outcomes need to account for, and accommodate, cohort diversity.* Each classroom will have students with different academic backgrounds, emotional and intellectual maturity levels and mathematical skills. Learning outcomes need to be actively conscious of diversity, inclusion and equity to ensure that both the individuals and the cohort can successfully meet prescribed outcomes.

3. *Resources and teaching strategies also need to account for, and accommodate, cohort diversity.* In each class, every student has different abilities and interests. For this reason, I try to include a variety of instructional approaches throughout my lectures, to address different learning styles, including open discussions, text content outlining the written information, formulae, and math explanations, a graphical illustration, if it facilitates a better understanding of the given concept, and finally online resources for those who want to explore the topic in greater depth.

4. *Pre-conceived notions and emotional response about a topic can be a powerful learning tool.* Students are often more invested in a new topic when they get to explore their existing understanding and perceptions prior to discussing all of the facts. Furthermore, in my experience, students demonstrate a greater

receptiveness to information when it garners an emotional reaction, such a confusion, disappointment or shock. As an example, when discussing elder care in my Health Economics course I explain that while the median household income is around $61K, the median cost of a year in a nursing home is about $90K, thus making it a nearly impossible option after retirement for most Americans. This information can be used as a springboard for an exciting, fact-based, discussion.

5. *Students can understand complex topics if they can have an intuitive idea of the magnitudes and relations about the phenomena they are trying to understand.* For example, students will comprehend how broken the malpractice system is in the United States when they know that only 2% of patients that suffer malpractice receive monetary compensations, and that more than 50% of malpractice money goes to courts and lawyers. Students connect the new information to the same neural pathways they use for daily activities or common sense (i.e. it is clear that the compensation system is not working when only 1/50 receive it.)

During my Ph.D. studies, I solidified and applied this teaching philosophy; in 2015 I was awarded with the William Dawes Teaching Award for Outstanding and Overall Best Performance by an Instructor in the Department of Economics at Stony Brook University. In 2016, I was awarded the Stony Brook Online Teaching Summer Award Grant, and in 2017 I was honored with the Open SUNY Online Teaching Ambassador 2018 award for Exemplary Online SUNY Educator.

I am eager to continue my work within the classroom, and to share my passion for topics within the theoretical and applied arena; I would welcome the opportunity to do so for courses such as Health Economics, Corporate Finance, Public Finance, Econometrics, Intermediate Microeconomics, Advanced Microeconomics, and Labor Economics.

Nirvana Mitra

https://sites.google.com/view/nirvanamitra/

Email: nirvana.mitra@gmail.com

in: linkedin.com/in/nirvana-mitra

STONY BROOK UNIVERSITY

Office Contact Information

Economics Department

Stony Brook University

Social and Behavioral Sciences Building

Stony Brook, NY 11794, USA.

Phone: +1 (631) 820-5628

Education

Ph.D. in Economics, Stony Brook University, USA, 2020 (expected).

M.A. in Economics, Jadavpur University, India, 2014.

B.Sc. in Economics (Honors), Ramakrishna Mission Vidyamandira, University of Calcutta, India, 2012.

Research Fields

Macroeconomics, International Finance, Political Economy

Working Papers

- "Political Constraints and Sovereign Default Premia", 2019 (**Job Market Paper**).

Work In Progress

- "Real Effect of Banking Industry Globalization"(with Pavel Chakraborty).
- "The Predictive Power of Capacity to Repay(CtR) Indicators in IMF Programs" (with Rina Bhattacharya and Edda Zoli).
- "Balanced Budget Rules: Lessons from a Political Economy Model of Sovereign Debt and Default"(with Marina Azzimonti).

Teaching Experience

- Instructor at Stony Brook University (2016 - 2020)
  - Intermediate Macroeconomic Theory (undergraduate).
    In Class: Summer 2017, Fall 2018, 2019, Spring 2020 (Assigned).
    Online: Summer 2018, 2019.
- Teaching Assistant at Stony Brook University (2015 - 2019)
  - Intermediate Macroeconomic Theory (undergraduate).
    Spring 2017, 2018, Fall 2017.
  - Mathematical Statistics (undergraduate).
    Spring 2019.
  - Introduction to Economics (undergraduate).
    Fall 2015, 2016, Spring 2016.

Conferences and Activities

- Midwest Macroeconomics Meetings, Vanderbilt University, USA, Nov 2018.

Work Experience

- Intern (Fund Internship Program), International Monetary Fund, Finance Department, Summer 2019.
- Research Assistant, Department of Economics, Jadavpur University, 2014-2015.

Fellowships, Scholarships, and Awards

- Graduate Fellowship, Stony Brook University, 2015-2020.
- Gold Medal for securing highest marks in Economics (Honors), Ramakrishna Mission Vidyamandira, 2012.

Others

- Computer Skills: R, LaTeX, Stata, Matlab, Fortran, Maple, Microsoft Office.
- Languages: Bengali (Native), English (Fluent), Hindi (Beginner).

References

Marina Azzimonti (Advisor)
Professor of Economics
Department of Economics, Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7549
Email: marina.azzimontirenzo@stonybrook.edu

Gabriel Mihalache (co-Advisor)
Assistant Professor
Department of Economics, Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (585) 627-3848
Email: gabriel.mihalache@stonybrook.edu

Alexis Anagnostopoulos
Associate Professor
Department of Economics, Stony Brook University
Stony Brook, NY 117944, USA.
Phone: +1 (631) 632-7526
E-mail: alexis.anagnostopoulos@stonybrook.edu

Political Constraints and Sovereign Default Premia

(Job Market Paper)

I study the relationship between political constraints and the sovereign's decision to default on external debt. To do this, I extend the dynamic political economy model of Battaglini and Coate (2008) to allow for default, as in Arellano (2008). I find that lower political constraints increase the chances of default, if the productivity cost associated with default is not too high. The government is comprised of legislators, who bargain over the provision of region-specific public goods, among other fiscal policy instruments, that benefit the region they represent. Political constraints, denoted by the number of votes needed to implement a policy, limit their ability to divert general funds towards local public goods. Less constrained governments have higher incentives to borrow and, gain more from default because the defaulted resources are distributed among fewer legislators as local public goods. The infinite horizon model, calibrated to Argentina, shows a negative relationship between political constraints and the probability of default. This result is consistent with the correlation I find between a proxy for political constraints, and bond spreads for a panel of Latin American countries. Using the quantitative model, a counterfactual exercise with even higher political constraints shows that the default event in Argentina in the last quarter of 2001 could not have been avoided.

Real Effect of Banking Industry Globalization (with Pavel Chakraborty)

We study the impact of a policy change allowing for an increased scale of operation for private and foreign banks in India on firm performance and misallocation. Using a unique firm-bank matched dataset from 1995 to 2007, we find that both private and foreign banking relationships and credit allocation increased significantly for the larger firms, according to a two-digit industry classification. We exploit the spatial distribution of firms and bank branches and the time variation from the policy change to identify the impact of the reform. We estimate the marginal products of the firms using the method in Klenow et. al. (2009) and find that the firms that benefit from the newer banks are not credit constrained (have a relatively low marginal product of capital). We document that decreased in missallocation between 1995 and 2007 cannot be attributed to the bank reform.

The Predictive Power of Capacity to Repay(CtR) Indicators in IMF Programs (with Rina Bhattacharya and Edda Zoli)

This study investigates whether Capacity to Repay (CtR) indicators can help predict the probability of successful completion of IMF's GRA programs. The empirical analysis uses a newly constructed database including projections of CtR indicators at the time of approval for GRA programs from 2002 to 2018. Our results indicate that stronger CtR indicators and political stability improve the chances of program completion. As an extension of our results, empirical break-points are estimated for the CtR indicators, using endogenously chosen specifications that best fit the data. In-sample tests for the estimated break-points are conducted, which show high accuracy rates for several CtR indicators.

RESEARCH STATEMENT

Nirvana Mitra

Stony Brook University

https://sites.google.com/view/nirvanamitra/home

nirvana.mitra@gmail.com

My primary areas of research are macroeconomics and international finance. My research focuses on how political and financial frictions impact fiscal policies, including sovereign debt, default and credit access for firms. I use quantitative and empirical methods to address the issues in my broad research agenda.

My paper titled **Political Constraints and Sovereign Default Premia (job market paper)** deals with political constraints and their impact on external debt default incentives of the government. I introduce political frictions through legislative bargaining in a canonical dynamic model of fiscal policy and default. The main contribution is in the way politics is introduced in this environment. The literature on sovereign debt and default studies political frictions mainly through the variation in the discount factor. This captures risks associated with political turnover, but precludes the risks associated with re-distributive politics. In my model, the bargaining protocol requires inclusive decision making. In order to have the fiscal policies implemented, the government needs to buy votes form a subset of the legislators. By exogenously varying the number of votes required to pass a policy, I tighten or loosen the degree of constraints on the government, and compare its impact on the fiscal policies. The highest degree of constraints boils down to a benevolent government, as studied in Cuadra, Sapriza and Sanchez (2010).

Another important contribution of this research is endogenous upper and lower bounds for all the fiscal policy variables. The way politics is modeled introduces lower bounds on the policy variables as in Battaglini and Coate (2008), while the default risk is responsible for the upper bounds. The model is calibrated to Argentina for a a period prior to the 2001 default episode. In the calibrated model, I find that higher political constraints are associated with lower default risk and responsible fiscal policies. This is consistent with behavior I find in a sample of South American countries. A counterfactual event study performed on the calibrated model confirms that even a higher degree of political constraints could not have prevented the default. The main takeaway from this finding is that even though political constraints are important to reduce default risk, they may not be powerful enough to prevent a default.

In the paper titled, **Real Effect of Banking Industry Globalization**, (with Pavel Chakraborty), we use a proprietary firm-bank matched dataset for India from 1995 to 2007 to find the real effect of increased banking competition on Indian manufacturing firms. Following a GATS round in 1994, India allowed a more liberalized operation of private and foreign banks in the financial markets. Using a newly constructed dataset, we study the effect of banking competition on the credit allocation across manufacturing firms in India. Using the policy change as a quasi-experiment, we break the sample period into two parts and find that after the policy change, bigger firms tend to be associated with more private and foreign banks and, obtain more credit. This is evidence of cherry-picking behavior by private and foreign firms. The cross sectional variation for this analysis comes from the regional-industrial portfolio of the firms. Using a district wise branching information and the policy change, we identify the effect of new private and foreign branches on firm activity. As a next step, we follow Hsieh et. al. (2009) to compute a measure of misallocation across firms. Technically, we estimate the marginal productivity of capital and labor for the firms and find their distribution across firm asset classifications. Intuitively, efficient allocation of inputs is associated with a degenerate distribution of marginal productivities. We find that the distribution is much wider for the smaller firms, indicating a greater degree of misallocation. In fact, the shape of the distribution has not changed much after the policy change. This is evidence that greater competition has not reduced the existing inefficiencies in the Indian credit market. One important contribution for this project is the use of a unique dataset on firms and banks for emerging markets, which has never been used before. Macroeconomic studies on banking competition has focused mainly on the effect on the dynamics of the banking industry itself (Goldberg 2009), (Corbae, Erasmo 2012). This paper bridges the gap and focuses on its real effect and misallocation. This is still work in progress. Estimated timeline for completion of this project is May, 2020.

Finally, in the paper, **The Predictive Power of Capacity to Repay(CtR) Indicators in IMF Programs** (with Rina Bhattacharya and Edda Zoli), we study the information content of projected Capacity to Repay (CtR) indicators in predicting the success or failure of IMF programs. The CtR indicators are projections of variables relevant to the debt service capacity of a country in an IMF program. They are projections at the time of program approval. Using a measure of program success as a dependent variable, we estimate endogenous break-points in the projected CtR indicator, beyond which there is an abrupt change in the probability program success. We use probit estimation find that some of the CtR indicators have sharp break points. The unique dataset we use for this project is compiled by the Finance department of the IMF, and is not publicly available. It consists of projections of the CtR variables and other macro aggregates for the program period, at the time of program approval. This is also work in progress. Currently the department is working on expanding the dataset, which will be useful to check the robustness of the estimated break-points. We also plan to take a case-study approach to complement our general regression results as the next step.

My future research will include work on both sovereign defaults and further work with the empirical firm-bank-matched data on financial frictions. My next project, titled **Balanced Budget Rules: Lessons from a Political Economy Model of Sovereign Debt and Default** (with Marina Azzimonti) studies the effect of balanced budget rules, similar to that conceived in Spain before the European crisis in 2012 and evaluate its implications on fiscal policy and default incentives of the government. For this project, we use the same benchmark environment as in my job market paper. Political frictions is a realistic starting point to evaluate balanced budget rules, as shown in Azzimonti et. al. (2016). Intuitively, the option to default can itself defeat the purpose of budget rules by increasing chances of default when the economy is in stress. On the other hand prevents overborrowing and overspending, which are the main reasons for vulnerability and default.

To complement the project on banking competition and firm credit access, we plan to use data on deposits for banks in India, for the same sample period. We plan to augment the firm-bank matched dataset with the bank deposits and see if deposit market competition played a role in the cherry-picking behavior of the new banks. The pre-existing public sector banks might have been attracted less deposits, resulting in distorted credit allocation to the smaller, credit constrained firms. The challenges in this project will be to account for the market capitalization of the foreign and private banks and to separate its effect from the channel of deposit market competition.

TEACHING STATEMENT

NIRVANA MITRA

STONY BROOK UNIVERSITY

https://sites.google.com/view/nirvanamitra/home

nirvana.mitra@gmail.com

From the beginning of my PhD curriculum in Stony Brook, I was required to take up the responsibilities to teach. Being a relatively small department with a large body of undergraduate enrolment, teaching has always been an integral part of every semester. Initially, I was a TA for professors in the department for courses like Principles of Economics and Intermediate Macroeconomics. After that I was the primary instructor of Intermediate Macroeconomics. I have taught the course in both classroom and online formats. Average class size in each of these courses is 70 students.

Teaching in Stony Brook has been a learning experience for me. Not only did I learn the content of the undergraduate courses that I taught from a matured perspective, I also learned how to teach. I believe that communication with the students is the key to successful teaching. In order to communicate and interact more, I follow the old-fashioned chalk board method of teaching. While teaching a new concept, I spend some time using this traditional method, solving complement it with examples and problems in class. After that, I usually go over some slides on the same content and post them online for reference. I encourage a lot of interaction in class, in the form of short questions about the next steps of a derivation or, an approach to solving a problem. This method encourages students to attend the class regularly, and has been a better instrument than keeping track of attendance, which has never been mandatory for any of my classes.

However, this method of teaching is not possible in an online class, which I have taught twice. To communicate and interact with the students, as close as possible to a physical classroom, I have discussion boards in an online class. Students post their questions, comments as well as anonymous grievances in the discussion board. As an instructor, I am an active participant in these discussions. This allows me to talk to the students and keep up the momentum of the course. Once each student gets the idea that they are monitored and cared about, their performance improves. I have also held virtual office hours for online classes, where the students could reach out on skype.

Knowing the names of every student in the class is a very effective method of teaching. Even though my classes are big, I try to know the names of all the students who attend the classes regularly. This personal touch motivates the student to put some extra effort in the material taught in class, simply because the instructor knows him/her. This method is differently applicable in online classes. For the weekly assignments in an online class, I provide a personalized feedback to the students, based on their work. Since students in my classes are from diverse backgrounds and cultures, there is a possibility that some students may lack the confidence to be an active participant in the classroom. Personalized feedback and simply knowing their names and making sure that they know that I know them is enough to induce confidence in them.

I love to teach. I have enjoyed teaching in Stony Brook, both as an instructor and as a teaching assistant. Even though I have mainly taught intermediate macroeconomics, I can teach any undergraduate economics course, with some time to prepare the material. I am comfortable teaching large online classes. I have completed an online teaching training organized by Stony Brook University recently, and I am excited to learn more and implement the new technologies and methods associated with online teaching as well as in-class teaching.

Estefania Vergara-Cobos

https://sites.google.com/site/estefaniavergaracobos/

E-mail: estefania.vergaracobos@stonybrook.edu

STONY BROOK UNIVERSITY

Office Contact Information

Economics Department
Stony Brook University
Social and Behavioral Sciences Building
Stony Brook, NY 11794, USA.
Phone: +1 (631) 946-3046

Personal Information: Ecuadorian citizen.

Education

Ph.D. in Economics, Stony Brook University, USA, 2014-2020 (expected).

M. A. in Economics, Stony Brook University, USA, 2012-2014.

B.A. in Economics and Finance, Pierre-Mendes Univeristy and Pontificia Universidad Catolica del Ecuador, France and Ecuador, 2008-2012.

Additional course-work: PhD-level Computer Science courses, Stony Brook University.

Research Fields

Industrial Organization, Applied Microeconomics.

Working Papers

- "Learning from disruption. The NYC taxi market case", 2019 (**Job Market Paper**).
- "The disappearance of the multiple equilibria problem in entry games", 2018.

Publications

- "Pricing Schemes and Seller Fraud: Evidence from New York City Taxi Rides", with Ting Liu and Yiyi Zhou, Journal of Industrial Economics, 67(1): 56-90, 2019.

Teaching and Research Experience

- Instructor at Stony Brook University (2016 - 2019)
  - Intermediate Microeconomic Theory (undergraduate)
  - Industrial Organization (undergraduate)
  - Introduction to Economics (undergraduate)
  - Health Economics (undergraduate)
- Research Assistant at Stony Brook University (2018)
  - Research assistant in a project funded by NIH that seeks to identify the predictors of mortality among people with Serious Mental Illness.
- Teaching Assistant at Stony Brook University (2014 - 2015)

  - Introduction to Economics (undergraduate) – Professor William Dawes and Professor Mark Zweig
  - Money and Banking (undergraduate)
- Teaching Assistant at Pontificia Universidad Catolica del Ecuador (2010-2012)
  - Advanced Microeconomic Theory (undergraduate) – Professor Miguel Acosta
  - Mathematical Economics (undergraduate) – Professor Miguel Acosta
  - Economic History (undergraduate) – Professor Pablo Davalos

Conferences Paper Presentations

- 87th International Atlantic Economic Conference: Athens
- 29th Stony Brook International Conference on Game Theory
- 16th International Industrial Organization Conferences
- 28th Stony Brook International Conference on Game Theory
- 3rd International Economics Congress by EPN - Ecuador
- New York State Economics Association 2017 Annual Conference
- 92nd annual Western Economic Association International Conference

Fellowships, Scholarships, and Awards

- Graduate Fellowship, Stony Brook University, 2014-2019.
- Distinguish Travel Award, Stony Brook University, 2019
- Finalist - Stony Brook University 3 Minutes Thesis Competition, 2018.
- Yachay EP Scholarship for International Conference Presentation, 2015
- Senescyt International Scholarship for Graduate Studies, 2012 - 2014.
- Undergraduate fellowship, Pontificia Universidad Catolica del Ecuador, 2010-2012

Others

- Fluently Spoken Languages: English, Spanish, French .
- Computer Skills: R, Python, Matlab, SQL, C++, Latex.

References

Professor Steven Stern (Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-1328
Email: steven.stern@stonybrook.edu

Professor Hugo Benitez-Silva
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7551
Email: hugo.benitez-silva@stonybrook.edu

Professor Yiyi Zhou
Department of Economics
Stony Brook University
Stony Brook, NY 11794-4384, USA.
Phone: +1 (631) 632-7534
E-mail: yiyi.zhou@stonybrook.edu

Learning from disruption. The NYC taxi market case'

(Job Market Paper)

The "on-demand" or "sharing" economy is defined as the economic activity created by technology-based companies (e.g. Uber, Lyft, Airbnb) that act as "middlemen" connecting independent providers of a good or service with consumers. However, there is a popular debate going on about whether these companies are not just middlemen but also strategic players taking advantage of regulatory loopholes. The operation of the traditional NYC yellow taxicabs has been subject to regulatory policies on entry and price since the 1940s. But, in 2012, this heavily regulated industry faced the entrance of its first-ever direct competitor, Uber. Since then, the market has experienced big changes in its core structure.

This paper contributes to the emerging literature on the sharing economy and the literature on demand estimation in a previously regulated market. It analyzes the effects of the entrance of Uber on the demand for taxicab services in NYC in the period between 2010 and 2015. My model considers two types of suppliers (yellow taxicabs and Uber), each with different pricing methods (fixed fares and dynamic pricing) and waiting times (due to street hailing versus e-hailing). In the empirical part, this paper follows the literature on demand estimation of differentiated products. The model makes assumptions that describe a demand system in characteristics space. First, it is assumed that taxicab services are a bundle of different characteristics such as waiting time, hailing method, occupancy. Second, consumers have preferences on the characteristics of the taxicab services rather than on the service itself. Third, yellow taxicabs and Uber are substitutes in consumption.

The estimation relies on rich micro-level data from before and after the entrance of Uber. The data consist of financial and GPS records of every yellow taxicab ride that occurred between 2010 and 2015, and every Uber ride from June to September 2015. Given the available data, the identification strategy uses the entrance of Uber in 2012 as a natural shock. Many discrete choice models that use price as an exogenous variable present endogeneity problems due to the possible correlation of the price and the unobserved term. For identification purposes, I also include a restriction on the covariance-structure of unobservables by assuming a functional constraint in the error term that uses simulated individual data on individuals' income. For instance, the price elasticity of demand is assumed to be a function of the simulated income drawn from the neighborhoods' income distributions observed in the 2010 Census data. For dealing with the computational burden of estimating the likelihood contributions of millions of observations, I use a method of weighted representative trips.

Among the findings, I see that consumers are more sensitive (in terms of price elasticity of demand) to increases in the price of Uber than to increases in the price of yellow taxicabs. Better weather conditions decrease the demand for Uber and increases that of yellow taxicabs. This could be explained to the fact that the demand for yellow taxicabs depends on the traditional street-hailing method. In terms of occupancy level, in times of high occupancy, both Uber and yellow taxicabs' demand decrease, and the demand for the outside option increases. Some other variables that were found significant in the demand estimation are the time of the day, day of the week, hailing method, waiting times, and correlation between the price elasticity of demand and income level.

RESEARCH STATEMENT

Estefania Vergara-Cobos
Stony Brook University
https://sites.google.com/site/estefaniavergaracobos/
estefania.vergaracobos@stonybrook.edu

At industry conferences, business magazines, economic talks, perhaps the most popular discussion is about innovation and technological disruption. As an empirical IO Economist, I like to measure "impact." Specifically, I am interested in understanding the effects that technological disruption and regulatory shocks have on consumers' and suppliers' behavior. I also would like to take advantage of the amount of data that is being produced presently. Therefore, in my Ph.D. research, I combine these interests and study markets with a large number of agents that have had critical exogenous changes to their core structures. Most of my research focuses on understanding the impact of pricing schemes, expected demand, and disruption in the taxicab industry. However, I am also interested in theoretical Industrial Organization, Labor Economics, and Health Economics. In these fields, I have worked on understanding the asymptotic properties of the multiple equilibria problem in entry games and the economic characteristics of people with severe mental health problems.

The first market that I have looked at is the NYC taxicab market, which in 2012 faced two significant shocks, a price hike and the entrance of Uber. My research mainly focuses on analyzing two aspects of this market, the effects of the entry of Uber on consumers' behavior and the impact that different price schemes have on drivers' decisions to defraud consumers. My Job Market Paper, called "Learning from disruption, the NYC taxicab market," seeks to understand the factors affecting the demand for taxicab services and how these factors have changed after the entrance of Uber. This paper uses rich micro-level financial and GPS data of all the yellow taxicab trips that occurred in NYC between 2010 and 2016 and all Uber trips that occurred between June and September 2015. First, this paper presents a theoretical structural model that explains consumers' and suppliers' behavior in a market with search frictions, different matching technologies, and various pricing schemes. Demand is estimated using Maximum Simulated Likelihood Estimation. Based on my findings, consumers are more sensitive (in terms of price elasticity of demand) to increases in the price of Uber than to changes in the price of yellow taxicabs. Better weather conditions decrease the demand for Uber and increase that for yellow taxicabs. In times of high occupancy, the demand for both Uber and yellow taxis decreases. Other variables that are significant for the estimation of demand are the time of the day, day of the week, hailing method, waiting times, and the correlation between the price elasticity of demand and income level. It is well-known to economists that stationarity in an economic model can lead to biased results. Therefore, I am working on analyzing this research question in a dynamic framework in which drivers and consumers are allowed to switch between taxi providers, can delay choices, and can be forward-looking agents.

The paper called "Pricing schemes and seller fraud: evidence from New York City taxi rides," is a collaboration with Yiyi Zhou and Ting Liu that was published in the Journal of Industrial Economics. This paper studies how different pricing schemes affect drivers' decisions to defraud consumers. We conclude that drivers are more prompt to commit fraudulent activity (take passengers for detours) when the expected occupancy (demand) is low and when the ride is subject to a two-part tariff. For example, we found that consumers are more likely to be taken on detours during the hours of 3 am, and 4 am. Also, drivers that choose strategic pick-up locations such as LGA airport (an area under the two-part tariff system) are more likely to commit fraud. As in every credence-good market, the sellers (in this case, the drivers) infer passengers' knowledge and tend to take tourists on more detours than locals. For instance, after the price hike, tourists pay approximately 11 million dollars more per year just on detours. Finally, we conclude that the new search and match technology, or Uber technology, has the potential to decrease fraud significantly.

I am also interested in theoretical Industrial Organization. In my paper, called "The disappearance of the multiple equilibrium problem," I used a geometric analysis to prove that the problem of multiple equilibria disappears as the number of players goes to infinity. Another field of Economics that I find fascinating and very useful for society is Health Economics. As a student at Stony Brook University, I had the opportunity to work as a research assistant for Beth Merwin and Steven Stern in a project funded by NIH. The project seeks to study the differences in mortality rates of people with and without severe mental health problems. This research introduced me to the importance of considering mental health when studying individuals' economic decision-making process.

In the future, I want to continue measuring the effects of technological disruption. Heavily regulated industries such as transportation, healthcare, and finance are becoming targets for market disruption driven by entrants with better technology and different cost structures. Such entrants are not only changing how consumers and suppliers match and how they make transactions, but they are also increasing efficiency in the trading. Perhaps one of the most exciting research questions lies in understanding the reasons why technological disruptors have been able to overpass existing regulations. An essential aspect of doing research in this area is that useful data is often available to researchers. I would also like to continue working on Health Economics. Specifically, I am interested in studying how mental health affects a person's productivity and economic well-being.

TEACHING STATEMENT

ESTEFANIA VERGARA-COBOS

STONY BROOK UNIVERSITY

https://sites.google.com/site/estefaniavergaracobos/

estefania.vergaracobos@stonybrook.edu

In my academic life, I have had the opportunity to work as an Instructor and Teaching Assistant of several undergraduate-level Economics courses at Stony Brook University and the Pontifical Catholic University of Ecuador. Each of these experiences has taught me essential teaching strategies and hacks and has fueled my passion for teaching. I am particularly interested in teaching Microeconomics, Health Economics, Industrial Organization, and Introduction to Economics (all of these are classes that I have taught). I am also interested in teaching Statistics and Mathematical Economics.

In my first years as an undergraduate Economics student, perhaps my greatest challenge was to link the real world with the theory. Getting to think about everyday things from a scientific and logical point of view is not easy. Likewise, talking to students who have never studied Economics about economic topics is not easy and requires smart teaching strategies. My experience as an undergraduate student taught me that the main thing is to prevent students from getting scared about the theory and its jargon. Therefore, my goal as an Economics professor is to make students think about the concepts present in the books as something that is part of their daily lives. That is why, when teaching, I try my best to make students assimilate economic theories with everyday life events. I also try to achieve in the students a logical economic point of view, such that, at the end of the course, they can have intellectual discussions about the economy.

This goal has been a big challenge in all my classes, but especially in the Introduction to Economics class. In this class, one meets students of all kinds of majors, from exact sciences to philosophy, medicine, art, etc. My interest in this class was always to get students to "think in economic terms." I have never been interested in having students memorize concepts, but rather think logically. I work hard to make my examinations mostly logical. It is difficult to speak to someone who has never received an Economics class about things like the Consumer Theory. My strategy to cope with this is to link the theory with practical and simple examples, trying to carry on with the students a theoretical and practical conversation in a very natural and simple way (but not so simple that it can bore the students). With this method, I have not only succeeded in getting students to understand the economic theories but also make a fun, dynamic, and entertaining class for all.

The challenges have been a bit different in more advanced classes such as Industrial Organization, Health Economics, and Microeconomic Theory. These classes are usually attended by students whose major is Economics and have already been exposed to other courses in the Economics Department. In these classes, my biggest goal has always been to get students to think critically. I have learned that students are more motivated to think critically when they match the theory with the practice by themselves. For example, in my Health Economics class, I taught my students how to access to the Health and Retirement Survey. Using this, I asked them to find a possible cause-effect relationship between two or more variables of the survey. This exercise motivated the students a lot and made them feel like they are doing something that matters.

I also have a considerable interest in the classes that use Mathematics as a tool for teachings. Luckily, I have had the opportunity to teach Microeconomic Theory and Industrial Organization. Using Mathematics when explaining economic theories is a very efficient and fun teaching tool. However, I have learned that even when using Mathematics, one should not forget to relate every concept, every equation, with "real life". For example, in an exercise of optimization of the consumer problem, it is necessary first to motivate students about the use of certain parameters and explain their meanings and practical applications.

I am someone who sees teaching as a challenge and entertainment, but above all, a learning process that increases my ability to think analytically and logically. When teaching, not only does one learn more about Economics, but also about how to reach people's minds and how to make it grow. For me, seeing a student become a more critical and logical person is a professional and personal achievement.

Yan Wang

https://sites.google.com/site/wangyanecon/

E-mail: yan.wang.1@stonybrook.edu

State University of New York at Stony Brook

Office Contact Information

Economics Department
SUNY at Stony Brook
Social and Behavioral Sciences Building
Stony Brook, NY 11794, USA.
Phone (CHINA): +86 186-1001-5035
Phone (U.S) : +1 (631) 885-5979

Personal Information: China Citizen

Education

Ph.D. in Economics, SUNY Stony Brook, USA, 2016-2020 (expected).
M. A. in Economics, SUNY Stony Brook, USA, 2014-2016.
B.A. in Economics, Beijing Jiaotong University, China, 2009-2013.

Research Fields

Macroeconomics, Public Finance, Development Economics

Working Papers

- "The Evolution of Income and Wealth Inequality in China", **Job Market Paper.**
- "Labor Market Segmentation, Financial Constraints and Economic Growth in China", with Juan Carlos Conesa.

Work In Progress

- "Urbanization and China's Pension Reform", with Juan Carlos Conesa.
- "How the Market Structure Affects the R&D Decision when Acquisition is Possible", with Sandro Brusco.

Teaching Experience

- Instructor at Stony Brook University (2016 - 2019)
  - Econometrics (undergraduate), Summer 2017, Spring 2018, Summer 2018, Fall 2018
- Teaching Assistant at Stony Brook University (2016 - 2019)
  - Mathematical Statistics (undergraduate) Fall 2016
  - Intermediate Macroeconomic Theory (undergraduate) Fall 2017
  - Econometrics (undergraduate) Spring 2018
  - Introduction to Economics (undergraduate) Spring 2019

Conferences and Activities

- China Economist Society North America Conference, Atlanta, April 2018, Athens, April 2019.
- Eastern Economics Association Conference, New York, March 2019.
- Western Economics Association Conference, San Francisco, June 2019.
- The 30th International Conference on Game Theory, Stony Brook, July 2019.

Fellowships, Scholarships, and Awards

- Tuition Scholarship and Graduate Teaching Assistantship, SUNY Stony Brook, 2016-2020.
- Academic Achievement Award, SUNY Stony Brook, 2016.

Others

- Languages: English (fluent), Mandarin (native)
- Computer Skills: Fortran, Matlab, R, Stata, Maple, OpenMP, MPI

References

Professor Juan Carlos Conesa (Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 117944, USA.
Phone: +1 (631) 965-9337
E-mail: juan.conesa@stonybrook.edu

Professor Marina Azzimonti
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7549
Email: marina.azzimontirenzo@stonybrook.edu

Professor Alexis Anagnostopoulos
Department of Economics
Stony Brook University
Stony Brook, NY 117944, USA.
Phone: +1 (631) 632-7526
E-mail: alexis.anagnostopoulos@stonybrook.edu

The Evolution of Income and Wealth Inequality in China

(Job Market Paper)

China's GDP per capita has increased from 400 USD in 1990 to 8,900 in 2018. Over the same time period inequality in both income and wealth has increased substantially. This paper proposes a general equilibrium multi-sector growth model with rich heterogeneity to quantify the impact of different changes that took place in the early 1990s over growth and inequality along the transition. Aging has had, for now, very little impact on growth and the increase in inequality. In contrast, rural-urban migration is a fundamental engine of growth and has alleviated the increase in inequality by narrowing the rural-urban income gap. Finally, the emergence and growth of the private sector is the key component behind the increase in inequality.

Labor Market Segmentation, Financial Constraints and Economic Growth in China

(with Juan Carlos Conesa)

We evaluate in a quantitative two sector model with segmented labor markets and financial frictions the prospects for China's future growth under different policy scenarios. The high growth rate observed in China since the early 1990s is generated by the large increase in urban labor supply because of rural-urban migration, and the emergence of private enterprises that absorb those migrant workers. Our simulations suggest that the rapid aging of its population will significantly decelerate economic growth starting around 2040. In addition, substantial relaxation of financial constraints faced by private enterprises cannot compensate for that deceleration.

How the Market Structure Affects the R&D Decision when Acquisition is Possible

(with Sandro Brusco)

We examine how firms' R&D behaviors will respond to the market structure change, specifically, the demand side of the acquisition market becomes more competitive. And we argue that as the number of big firms increases, big firms will invest more in R&D, since they are less likely to outsource innovation due to the increasing demand in the acquisition market. One the other hand, small firms are even more engaged in investing in R&D, since they are more likely to be sold out to larger firms and also because they are likely to gain more bargain power once innovate.

RESEARCH STATEMENT

YAN WANG
STONY BROOK UNIVERSITY (SUNY)
https://sites.google.com/site/wangyanecon/
yan.wang.1@stonybrook.edu

My research field is Macroeconomics, with a special emphasis on growth, inequality and public finance. Over the last 30 years, China has experienced a spectacularly fast process of structural transformation, massive rural-urban migration and fast economic growth. My goal is to study this transformational process and to quantify its driving forces and potential consequences.

In my job market paper I develop a novel three sector overlapping generation growth model with rich individual and firm heterogeneity in order to study this process. I introduce in my model three key driving forces occurring at the beginning of the 1990s. First, the economic reforms of Deng Xiaoping allow the emergence and growth of a private sector. Second, there is a massive movement of people from rural to urban areas. Third, the first generations of the one-child policy start entering the labor market, generating accelerating aging of the working-age population. I build population and migration estimates from census data, I quantify the amount of earnings risk faced by rural, native urban and migrant workers, and I quantify the amount of risk faced by entrepreneurial firms in the private sector. With all those ingredients, the model is consistent with growth and the evolution of inequality observed in China in the 1990-2018 period. Counterfactual analysis suggests that massive rural-urban migration drives growth and has a moderating effect on inequality. In contrast, the development of the private sector is the driving force behind the increase in inequality. Finally, aging has had very little impact so far.

In related work co-authored with my advisor, Professor Juan Carlos Conesa, we focus exclusively on economic growth, and determine the impact of the bottlenecks faced by the private sector. In particular, as in my job market paper, we model the private sector as facing severe borrowing constraints and segmented labor markets. Our simulations suggest that the rapid aging of the working-age population will significantly decelerate economic growth starting around 2040. In addition, substantial relaxation of financial constraints faced by private entrepreneurs or the elimination of labor market segmentation has little impact on that deceleration.

As for future research, notice that the rich heterogeneity and risk structure of my job market paper renders the model a very useful tool for policy analysis. The first issue that comes to mind is the impact of differential risk-sharing arrangements depending on the Hukou (residential) status of individuals. For example, this is the case in pension and health care entitlements.

Finally, I am also interested in Industrial Organization. In cooperation with Professor Sandro Brusco, we study firms' R&D decisions in relation to acquisition activities as the market structure changes. Currently we find that a competitive acquisition markets will encourage both small and large firms to innovate. This project is still in progress, and we are going to introduce different bargaining mechanisms and more empirical evidence is needed.

TEACHING STATEMENT

YAN WANG

STONY BROOK UNIVERSITY (SUNY)

https://sites.google.com/site/wangyanecon/

yan.wang.1@stonybrook.edu

Teaching makes me feel energetic and open-minded. Having been the sole instructor of Econometrics at the undergraduate level for four semester courses (one online course and three in-class courses), each with 70 student enrollments, I have learned a lot from teaching per se and communication with my students. In addition, I also have the experience of being a Teaching Assistant for the following undergraduate courses: Intermediate Macroeconomic Theory, Mathematics and Statistics, and Introduction to Economics. As such, I feel qualified to take care of virtually any undergraduate course assigned. I could certainly teach Econometrics with very little advanced notice, and I feel confident that I could teach any other undergraduate course with a little bit of advanced notice. Regarding graduate teaching, I feel confident that I could prepare and teach any part of the standard first year Macroeconomics curriculum at the MA and PhD level, as well as more topics oriented courses for more advanced students.

XIAOHAN WANG

Website: https://sites.google.com/view/xiaohanwang
E-mail: xiaohan.wang@stonybrook.edu
LinkedIn: linkedin.com/in/xiaohan-wang/

STONY BROOK UNIVERSITY

Contact Information

Department of Economics
Stony Brook University (SUNY)
Social and Behavioral Sciences Building
Stony Brook, NY 11794, USA
Phone: +1 (631) 542-3698

Education

PhD in Economics, Stony Brook University, USA, 2015 - 2020 (expected).
M.A. in Economics, Central University of Finance and Economics, China, 2015.
B.A. in Economics, Central University of Finance and Economics, China, 2011.

Research Fields

Macroeconomics, International Finance, Public Finance.

Working Paper

- Renegotiation After Sovereign Default: Bygones No Longer (**Job Marekt Paper**).

Work in Progress

- Wealthy Hand-to-Mouth and Property Tax Reform in China.
- The Political Economy of Debt, Entitlements and Income Inequality, with Marina Azzimonti and Laura Karpuska.

Teaching Experience

- Instructor at Stony Brook University
  - Money and Banking (undergraduate, in classroom and online).
- Teaching Assistant at Stony Brook University
  - Macroeconomics (graduate).
  - Intermediate Macroeconomic Theory (undergraduate).
  - Introduction to Economics (undergraduate).

Conference Presentations

- Midwest Macroeconomics Meetings Fall 2019, Michigan State, USA, November 1-3, 2019.
- 2019 CES North America Conference, University of Kansas, USA, April 6-7, 2019.
- 2018 CES China Conference, Hefei, China, June 23-24, 2018.

Fellowships, Scholarships, and Awards

- Graduate Fellowship, Stony Brook University, 2015 - present.

Others

- Computer Skills: Fortran, Matlab, R, Stata.
- Language: English, Chinese (native).

References

Professor Marina Azzimonti (Advisor)
Stony Brook University
Email: marina.azzimontirenzo@stonybrook.edu
Phone: +1 (631) 632-7549

Professor Juan Carlos Conesa
Stony Brook University
Email: juan.conesa@stonybrook.edu
Phone: +1 (631) 965-9337

Professor Gabriel Mihalache (Co-Advisor)
Stony Brook University
Email: gabriel.mihalache@stonybrook.edu
Phone: +1 (585) 627-3848

Renegotiation After Sovereign Default: Bygones No Longer (*Job Market Paper*)

In the aftermath of a sovereign default, debt recovery is determined through a restructuring process. This recovery is important for both the country and the creditors. For the country, debt recovery determines its debt burden after exiting default and impacts macroeconomic performance. For the creditors, recovery reduces their losses. Using the dataset of Cruces and Trebesch (2013), I show that the level of recovery is positively related with the level of defaulted debt. In light of this finding, I build a framework that rationalizes this strong association by employing the Kalai-Smorodinsky bargaining solution in a model of sovereign debt renegotiation, while jointly matching standard emerging markets' behavior. I identify the key assumptions that enable the model to match the data. I also show that the model using a standard Nash bargaining protocol results in debt recovery being unrelated to the outstanding level of debt.

Wealthy Hand-to-Mouth and Property Tax Reform in China

The wealthy hand-to-mouth (W-HtM) are households that hold little or no liquid wealth, while at the same time holding substantial illiquid wealth, such as housing. Using two waves (2011 and 2013) of the China Households Finance Survey (CHFS) dataset, I find that almost 80% of households in urban China with no liquid wealth are W-HtM. During the housing market boom between these two waves, the share of W-HtM households increased substantially in most urban areas except for Shanghai. I argue that this could have resulted from a pilot reform of residential housing taxation. The property tax lowers returns on housing assets, and prevents households from saving in such assets and becoming W-HtM. By extending Kaplan and Violante (2014), I can rationalize this mechanism on a model calibrated to China in 2011. In addition, I estimate the effects of conducting a similar tax reform in all urban areas in China. My model has important implications for wealth and consumption inequality.

RESEARCH STATEMENT

Xiaohan Wang

Stony Brook University

https://sites.google.com/view/xiaohanwang/

xiaohan.wang@stonybrook.edu

My primary research interest is international finance, with a focus on sovereign default and debt renegotiation. I study renegotiation outcomes and their implications for countries' default behavior and economic conditions after debt restructuring. I apply general equilibrium methods under incomplete markets, lack of commitment, and other financial frictions to address these questions. I am also interested in policy-related questions in the fields of public finance and households finance, such as consumption and wealth dynamics around a tax reform.

My job market paper, "Renegotiation After Sovereign Default: Bygones No Longer", studies how debt recovery is determined in renegotiations after sovereign defaults. This recovery is important to the sovereign because it determines debt burden after restructuring and impacts future macroeconomic performance. I find, using a comprehensive debt restructuring dataset, that debt recovery is positively related to level of defaulted debt, which has not been previously stressed in the literatures. In light of this finding, I build a framework of sovereign default that rationalizes this strong association by employing the Kalai-Smorodinsky bargaining solution as a model of sovereign debt renegotiations. The numerical results from the calibrated model demonstrate the strong role of defaulted debt in determining recovery. I show that a reference model with the standard Nash bargaining protocol does not exhibit this behavior.

In the other project, "Wealthy Hand-to-Mouth and Property Tax Reform in China", I analyze the effect of property tax reform on the share of wealthy hand-to-mouth households in urban China. These households have little liquid wealth and substantial illiquid wealth, such as housing, simultaneously. Data shows that during the housing market boom between 2011 and 2013, the share of wealthy hand-to-mouth in urban China almost doubled except for Shanghai, whose share was unchanged. I argue that this could have resulted from a pilot reform of residential housing taxation in Shanghai. The property tax lowers returns on housing assets, and prevents households from saving in such assets and becoming wealthy hand-to-mouth. I will extend the model in Kaplan and Violante (2014) to rationalize this mechanism and study its implication for wealth and consumption inequality.

In the joint work "The Political Economy of Debt, Entitlements and Income Inequality" with M.Azzimonti and L.Karpuska, we find the size of the US government as a share of output has increased significantly since the 1960s, mostly due to the expansion of entitlement programs. Rather than increasing taxes, the government relied mostly on public debt to finance this expansion. At the same time, we have observed an increase in the degree of income inequality caused by the disproportionate growth in the share of income held by the top 1%. We propose a theory to explain the co-movement between debt and entitlements using a dynamic politico-economic model. Our theory suggests that the increase in income inequality in the US may be an important factor explaining the upward trend in debt and entitlements (as shares of GDP) in recent decades.

In the future 3-5 years, I will keep my focus on sovereign debt and more broad international finance. I will extend the model of my job market paper to include long-term debt and government fiscal policy, which allows me to study the aftermath of debt restructuring, such as spreads and welfare of the default country. I will study currency composition of sovereign debt and its interaction with fiscal and monetary policy. The other field of my interest is public finance. I will finish the current joint project, and work further on topics of inequality and public policy such as debt and taxation.

TEACHING STATEMENT

XIAOHAN WANG

STONY BROOK UNIVERSITY

https://sites.google.com/view/xiaohanwang/

xiaohan.wang@stonybrook.edu

Good teaching is more than delivering knowledge to students. In my teaching, I strive to provide students with intuition and logic underlying economic arguments, and help students understand how they are applied in analyzing problems. Through this way, they can remember concepts and models more efficiently, but are also able to use the tools to address new issues.

From my experience as an instructor, I find it's extremely helpful to illustrate with data and figures. When I was talking about the chapter of financial crises in Money and Banking, I made a point that one trigger of the recent crisis is the collapse of mortgage-backed security markets. To support my point, I showed a figure about the evolution of their issuance. Students got the point readily when they saw the obvious drop after 2008.

One objective of my teaching is to help students use the tools they learn in class to address new problems. To achieve that, I encourage students to do their own work. After I taught functions of money in Money and Banking, I asked them to read materials on the emerging cryptocurrencies, such as Bitcoins and Libra, and to analyze whether they can serve as money and even replace the current fiat money system. By doing this task, they obtained a better understanding of the concepts, and more importantly, used them in resolve new issues.

The classes I taught in Stony Brook University usually have 70 students. In such big classes, I find communication and interaction can help me teach more efficiently. By talking to students after class or in office hours, I can get their confusions and redistribute my time to clarify them. When designing my online class, I put 20 percent of the grading in participating discussion via forums. Students can ask and answer questions with each other, and I respond to each post and give comments. In this way, I am able to learn how well they understand the materials and what I should emphasize.

I have been teaching Money and Banking at Stony Brook University for years. I am interested in and am able to teach courses related to macroeconomics and finance, not limited to what I taught, such as Intermediate Macroeconomics, International Economics and Corporate Finance. I am ready to teach graduate level macroeconomics as well, due to my experience as TA of the course for two years. However, I am willing to teach courses in other fields as needed.

SANG-HA YOON

https://sites.google.com/view/syoon/
E-mail: sang-ha.yoon@stonybrook.edu

STONY BROOK UNIVERSITY

Office Contact Information

Department of Economics
Stony Brook University
Social and Behavioral Sciences Building, 6th Floor
Stony Brook, NY 11794-4384
Phone: +1 (573) 864-4884

Personal Information: Republic of Korea citizen (F-1 Visa)

Education

Ph.D. in Economics, Stony Brook University, Stony Brook, NY, 2020 (expected).
Ph.D. Student in Economics, University of Missouri, Columbia, MO, 2012-2014.
M.A. in Economics, Yonsei University, Seoul, Korea, 2005.
B.A. in Political Science (Minor in Economics), Yonsei University, Seoul, Korea, 1999.

Employment and National Service

Economist, LG Economic Research Institute, Seoul, Korea, 2005-2012.
Assistant Manager, Shinhan Bank, Seoul, Korea, 2005.
Lieutenant, Republic of Korea Air Force, Gyeonggi-do, Korea, 2000-2004.

Research Fields

Macroeconomics, Firm Dynamics.

Working Papers

- "Firm Entry Decline, Market Structure, and Dominant Firm's Productivity", 2019 (**Job Market Paper**).

Work In Progress

- "Aggregate Consequences of Credit Subsidy Policies and Bankruptcy Options"
- "Common Ownership and Entry Deterrence" with Sunghun Cho.
- "Shadow Economy and Fiscal Policy" with Joonseok Jason Oh and Anna Rogantini Picco.

Teaching Experience

As an Instructor

- At Stony Brook University
  - Industrial Organization (undergraduate. SP 2019, SU 2019, FA 2019)
  - Money and Banking (undergraduate. WI 2018, SP 2018)
  - Public Finance (undergraduate. SU 2017, SU 2018, FA 2018, SU 2019)
  - Econometrics (undergraduate. FA 2017)
  - Intermediate Macroeconomic Theory (undergraduate. SP 2016, SU 2016, FA 2016)

- At Yonsei University
  - Math Pre-fresher for Political Science (graduate. WI 2019)

As a Teaching Assistant

- At Stony Brook University
  - Macroeconomics II (graduate. SP 2017) – Professor Juan Carlos Conesa
  - Introduction to Economics (undergraduate. FA 2015) – Professor William Dawes
- At University of Missouri
  - Principles of Microeconomics, Principles of Macroeconomics
- At Yonsei University
  - Population Economics (graduate), Economic Dynamics, Introduction to Korean Economy

Conferences (* scheduled)

- **2019** : Econometric Society European Winter Meeting (Rotterdam)*, International Conference on Game Theory (NY), Midwest Economics Association Annual Meeting (MO), Midwest Macroeconomics Meetings (GA), Eastern Economic Association Conference (NY).
- **2018** : Southern Economic Association Annual Meetings (DC).

Honors and Awards

- Teaching Assistantship, Stony Brook University, 2015-2020.
- The William S. Dawes Outstanding Teaching Award, Stony Brook University, 2017.
- The Lee & Yoo Graduate Scholarship in Korean Studies, Stony Brook University, 2017.
- Yonsei Int'l Foundation Scholarship, Yonsei University Alumni Association of Greater New York, 2015.
- Teaching Assistantship, University of Missouri, 2012-2014.
- Best Article Prize, LG Economic Research Institute, Dec 2005, Dec 2007, Jul/Dec 2010 Jul 2011.
- Graduate Scholarship for Student Excellence, Yonsei University, SP 2000, FA 2004.
- Research/Teaching Assistantship, Yonsei University, SP/FA 1999.
- University Designated Scholarship, Yonsei University, SP 1997, SP/FA 1998.

Others

- Languages: English (fluent), Korean (native).
- Computer Skills: MATLAB, Fortran, R, STATA, LaTeX.

References

Professor Juan Carlos Conesa (Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 11794-4384
Phone: +1 (631) 965-9337
E-mail: juan.conesa@stonybrook.edu

Asst. Professor Gabriel Mihalache
Department of Economics
Stony Brook University
Stony Brook, NY 11794-4384
Phone: +1 (585) 627-3848
Email: gabriel.mihalache@stonybrook.edu

Asst. Professor David Wiczer
Department of Economics
Stony Brook University
Stony Brook, NY 11794-4384
Phone: +1 (631) 632-7537
E-mail: david.wiczer@stonybrook.edu

Firm Entry Decline, Market Structure and Dominant Firm's Productivity
(Job Market Paper)

Since the number of new entrants per working-age population has declined dramatically during the last forty years in the United States, it created concerns for the economy regarding job creation, resource reallocation and aggregate productivity. At the same time, the productivity gap between the leading firms and the laggard firms has widened. Motivated by these two empirical facts, I build a general equilibrium firm dynamics model a la Hopenhayn (1992) and Shimomura and Thisse (2012) with the dominant firm and competitive fringe to measure the quantitative effects of higher productivity differences between the frontier firms and laggard firms on new firm's entry and other economic outcomes. I find that an increase in the dominant firm's productivity can explain one-third of the entry decline of fringe firms, in addition to increased markup and higher concentration. This results open up the questions related to policies such as size dependent policy and taxing superstar firms.

Shadow Economy and Fiscal Policy with Joonseok Jason Oh and Anna Rogantini Picco

This paper investigates how the shadow economy affects formal economic activity and optimal fiscal policy. Empirical evidence suggests that the shadow economy expands, while the formal economy contracts in a recession caused by decreased productivity or increased macro uncertainty. I show that a two-sector New Keynesian model with the shadow economy can successfully account for my empirical findings. In a recession, the reallocation of employment from the formal to the shadow economy occurs because the firm's marginal value of formal employment falls by more than that of shadow employment does. Moreover, due to the reallocation effects, the shadow economy amplifies the volatility of the formal economy. By using the model, I find that optimal fiscal policy rules can be different depending on the presence of the shadow economy. An automatic stabilizer component to government spending rule can generate significant welfare losses in the model with the shadow economy in contrast with the model without the shadow economy.

RESEARCH STATEMENT

SANG-HA YOON STONY BROOK UNIVERSITY

https://sites.google.com/view/syoon/ sang-ha.yoon@stonybrook.edu

I am an applied macroeconomist working in the areas of firm heterogeneity and macroeconomics. In the course of my research at Stony Brook University, my main focus has revolved around the market structure and its macroeconomic implications. Traditionally in macroeconomics, the market power of large firms has been ignored, except for Gabaix (2011). However, recent macroeconomic trends in the US, such as entry decline, increasing markup, and higher concentration, shed light on the new research agenda for macroeconomics. My effort to unearth the possible mechanism to explain these long-run trends is under this burgeoning area.

My job market paper "Firm Entry Decline, Market Structure, and Dominant Firm's Productivity" addresses this topic. Since the number of new entrants per working-age population has declined dramatically during the last forty years in the United States, it created concerns for the economy regarding job creation, resource reallocation, and aggregate productivity. At the same time, the productivity gap between the leading firms and the laggard firms has widened. Motivated by these two empirical facts, I build a general equilibrium firm dynamics model a la Hopenhayn (1992) and Shimomura and Thisse (2012) with the dominant firm and competitive fringe to measure the quantitative effects of higher productivity differences between the frontier firms and laggard firms on new firm's entry and other economic outcomes. I find that an increase in the dominant firm's productivity can explain one-third of the entry decline of fringe firms, in addition to increased markup and higher concentration. These results open up the questions related to policies such as size-dependent policy and taxing superstar firms.

While I finish up the job market paper, my next step will be to develop the new research idea, which is about the relationship between common ownership and entry deterrence. According to Backus (2019), the common ownership hypothesis is a growing concern, which suggests that when large investors own shares in many firms within the same industry, those firms have an incentive to soften competition by producing fewer units, raising prices, reducing investment, innovating less, or limiting entry into new markets. Since little is known about the macroeconomic implications of this phenomenon, I hope to develop a theoretical model to capture these features.

In addition to the market structure and macroeconomics, another strand of research I have an interest in is about informal sector firm dynamics. The paper, joint with Joonseok Jason Oh and Anna Rogantini Picco, investigates how the shadow economy affects formal economic activity and optimal fiscal policy. Empirical evidence suggests that the shadow economy expands, while the formal economy contracts in a recession caused by decreased productivity or increased macro uncertainty. I show that a two-sector New Keynesian model with the shadow economy can successfully account for my empirical findings. In a recession, the reallocation of employment from the formal to the shadow economy occurs because the firm's marginal value of formal employment falls by more than that of shadow employment does. Moreover, due to the reallocation effects, the shadow economy amplifies the volatility of the formal economy. By using the model, I find that optimal fiscal policy rules can be different depending on the presence of the shadow economy. An automatic stabilizer component to government spending rule can generate significant welfare losses in the model with the shadow economy in contrast with the model without the shadow economy. Related to this paper, I also want to explore the transition between the formal and informal sectors. Firms in the informal sector, who face the financial constraint, have little incentive to move to the formal sector because they have low productivity, and hence paying taxes will be burdensome. However, some of them may grow faster enough to get into the formal sector and to be able to pay taxes. After building the model with the choice of being formal and informal, the objective would be to think about the policy implications.

TEACHING STATEMENT

SANG-HA YOON STONY BROOK UNIVERSITY

https://sites.google.com/view/syoon/ sang-ha.yoon@stonybrook.edu

As an independent instructor from Spring 2016 at Stony Brook University, I have been teaching five different courses thirteen times in total. During this period, my consistent teaching goal has been to familiarize students with how to interpret real-world examples through the lens of economic theory. One of the comments from the teaching evaluation for the Econometrics class that I taught reveals: "There was a focus on what the numbers mean. Sang-Ha Yoon really tries to help students understand the interpretation of the mathematical material." By doing so, students can finally grasp why we have to learn economics in the classroom and how to apply them to economic questions by organized thoughts, not by the knowledge that could have learned from newspapers as unorganized ones.

To achieve this goal, I always cast many questions during the class and give them a little amount of time to think. For example, when I teach symmetric Bertrand duopoly competition model in Industrial Organization, my questions are such as (1) "What do you think 'symmetric' means?" (2) "Why do we assume they move simultaneously? What would happen if not? (3) "What implications do we have in terms of consumer welfare compared to Cournot model even if we have only two firms in common in both models, and what makes the difference?," (4) "Which industry can you think of as an example of Bertrand competition, and even if you think so, what is it cannot be explained by this model?" and so on. However, this does not mean that I ignore current issues from the real world. Textbooks include classic examples, but current issues and problems can help students to think out of the box actively. For example, to explain the concept of opportunity cost, I remind them of the salaries they could have earned if they decided not to attend college.

While maintaining this philosophy, what I want students to be able to learn is geared toward course by course. When I teach Intermediate Macroeconomic Theory or Public Finance, among others, the focus is more on the theoretical models because those two courses are about or heavily related to the aggregate economy and policies. In this case, I believe delivering the fundamental concepts and models precisely to students is the most important one. I hope students in these courses try to answer the question "What would you do if you are a policymaker?." On the other hand, for the Econometrics course, I want students to acquire hands-on knowledge to ba able to use right away when they have a job after graduation. Industrial Organization course is the mix of those two because it includes not only policy implications for competition but also a strategic way of thinking about a firm's policy if students are to be the manager.

Throughout my graduate studies, teaching has been an integral part of Ph.D. training. I have taught Intermediate Macroeconomic Theory, Public Finance, Econometrics, Money and Banking, and Industrial Organization, each of which has been taught several times. My course evaluations are mostly well above four out of five. I also received the Outstanding Teaching Award in 2017 from the Economics Department at Stony Brook. Based on these facts, I carefully attest that I am already a prepared teacher of economics, who can teach any economics courses required by my potential employer.

Teaching has a huge impact on my life too. I myself is growing and learning thanks to the enjoyable communication with students and in the process of preparation of the material. I believe witnessing students' growth in the classroom and in the community will be one of the most valuable experiences one can ever have.

WEIBO (COCO) ZHOU

https://sites.google.com/stonybrook.edu/weibozhou/home
https://www.linkedin.com/in/weibo-zhou-42263b104
E-mail: weibo.zhou@stonybrook.edu

STONY BROOK UNIVERSITY

Office Contact Information

Economics Department
Social and Behavioral Sciences Building
Stony Brook, NY 11794, USA.
Phone: +1 (631) 428-5555

Personal Information: F-1 Visa/OPT.

Education

Ph.D. in Economics, Stony Brook University, USA, May 2020 (expected).
M.A. in Economics, University of Oklahoma, Norman, USA, May 2014.
B.A. in Economics, Lanzhou University of Finance and Economics (with honors), Gansu, China, June 2010.

Research Fields

Labor Economics, Education and Human Capital, Applied Econometrics.

Working Paper

- "Why is the U.S. college graduation rate so low? An examination of the changing role of family structure across student cohorts," 2019 (**Job Market Paper**).

Work In Progress

- "Whom does the FAFSA favor? Quantifying the gap between EFC and ACF for students from divorced families"
- "Moving beyond enrollment: The effect of parental transfers on college access, persistence, and graduation"

Teaching Experience

- Instructor at Stony Brook University (Undergraduate (UG), x4)
  - Eco 320 Math Stat (UG, Students: 69, 70, 30, 48, Average Teaching Evaluation: 4.5/5)
- Teaching Assistant at Stony Brook University (2014 - 2019, both Undergraduate (UG) and Graduate (G))
  - Eco 520 Math Stat (G, Students: 20, Teaching Evaluation: 4.6/5) – Prof. Mark Montgomery
  - Eco 303 Intermed Micro Theory (UG, Students: 70, Teaching Evaluation: 4.7/5)) – Prof. Ting Liu
  - Eco 305 Intermed Macro Theory (UG, Students: 70, Teaching Evaluation: 4.4/5) – Prof. Atesagaoglu
  - Eco 321 Econometrics (UG, Students: 68, Teaching Evaluation: 4.3/5) – Prof. Samuele Centorrino
  - Eco 108 Intro to Economics (UG, Students: 68, Teaching Evaluation: 4/5) – Prof. William Dawes
- Tutor at Stony Brook University (2014 - 2019)
  - Over 30 students for 12 different economics courses (Undergraduate and Graduate level)

Invited Talks and Seminars

- The 88th Southern Economic Association (SEA) Conference, Washington DC, 2018
- The Western Economic Association International (WEAI) 94th Annual Conference, San Francisco, 2019
- The 89th Southern Economic Association (SEA) Conference, Fort Lauderdale, 2019
- Applied Microeconomics Workshop, Stony Brook, February, October, November 2019
- Applied Microeconomics Workshop, Stony Brook, February, March, April, September 2018
- Applied Microeconomics Workshop, Stony Brook, April, October 2017
- Applied Microeconomics Workshop, Stony Brook, November 2016
- Three Minute Thesis (3MT®) Competition, Stony Brook, April 2018

Fellowships, Scholarships, and Awards

- Graduate Fellowship, Stony Brook University, 2014-2020.
- Graduate Fellowship, University of Oklahoma, 2013-2014
- Outstanding Graduate of Lanzhou University of Finance and Economics, 2009.
- National Inspirational Scholarship, 2008.
- Second Prize of Mathematical Contest in Modeling, 2007.

Others

- Languages: Fluent in written and spoken English, native in Mandarin
- Computer Skills: Stata/ R / MATLAB / Python/ Maple/ LaTex/ Excel/ Word/ PowerPoint
- Secretary of Chapin Apartments Residents Association (CARA), Stony Brook University, 2014-2015.
- Computer Lab Consultant, Stony Brook University, 2015-2018.

References

Professor Meta Brown (Main Advisor)
Department of Economics
Ohio State University
Columbus, OH 43210, USA.
Phone: +1 (929) 428-1194
E-mail: brown.991@osu.edu

Professor Samuele Centorrino (Co-Advisor)
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1(631) 632-7575
E-mail: samuele.centorrino@stonybrook.edu

Professor Juan Pantano
Department of Economics
University of Arizona
Tucson, Arizona 85721, USA.
Phone: +1 (520)-621-4560
Email: jpanta@email.arizona.edu

Professor Mark Montgomery
Department of Economics
Stony Brook University
Stony Brook, NY 11794, USA.
Phone: +1 (631) 632-7527
E-mail: mark.montgomery@stonybrook.edu

Why is the U.S. college graduation rate so low? An examination of the changing role of family structure across student cohorts

(Job Market Paper)

This paper documents the changing family circumstances of U.S. college students, and their relationship to students' patterns of college attendance and graduation using the 1979 and 1997 cohorts of the National Longitudinal Survey of Youth (NLSY). My empirical models of graduation probability show that students who experienced family disruptions before age 18 in the 1979 cohort are just 3 percentage points less likely to graduate from college than those who lived with both of their biological parents up to age 18. However, this gap increased to 9 percentage points for the 1997 cohort. A decomposition exercise based on the estimates demonstrates the share of the change in completion rates that the model attributes to the various observed explanatory variables, particularly to the change in family structure. Results indicate that students' characteristics and family background account for 45 percent of the change in graduation rate, with family structure accounting for 12 percent of the change in graduation rate. The central contribution of this analysis shows the importance of the family structure in explaining changes in college completion over the past 30 years in the United States.

Whom does the FAFSA favor? Quantifying the gap between EFC and ACF for students from divorced families

Each year, 14 million households seeking federal aid for college complete a detailed questionnaire about their finances, the Free Application for Federal Student Aid (FAFSA). This ongoing project first points out the potential problem in the FAFSA form for students from divorced families and evaluates the proportion of FAFSA applicants who are affected by this problem. Second, it will quantify the gap between EFC (Expected Family Contribution) and AFC (Actual Family Contribution) for those students affected. With an understanding of the magnitude of the mismatch between ability to pay for college and college financial aid prescribed by the FAFSA among children of divorced parents, and of the prevalence of this situation in the college-going population, I will be able to evaluate proposed FAFSA modifications that account for a more contemporary range of U.S. family structures.

Moving beyond enrollment: The effect of parental transfers on college access, persistence, and graduation

In this paper, I focus on students who enroll in college, and their sources of college financial support over the course of a student's academic career. The 1997 cohort of the NLSY includes detail on college funding drawn from grants, loans, work, and family. In duration models of time spent in college, I estimate the dependence of college persistence on sources of college funding, including funding from family members. The preliminary results demonstrate that students from different family structures exhibit different propensities to stop out, reenroll, drop out, and graduate. By and large, the findings in this paper point to a stronger connection between financial support from parents and college persistence for students from nontraditional families than for students from traditional families. In the context of the literature, this may suggest more meaningful college financial constraints for children from nontraditional families.

RESEARCH STATEMENT

WEIBO(COCO) ZHOU

STONY BROOK UNIVERSITY

https://sites.google.com/stonybrook.edu/weibozhou/home

weibo.zhou@stonybrook.edu

SUMMARY: I am a job market candidate in economics at SUNY Stony Brook. My research interests are labor economics and applied microeconomics, with special emphases on education and human capital. This research statement summarizes my research work at Stony Brook. It also outlines the future research agenda.

1 The importance of family structure in explaining the stagnation in college completion rates in the United States.

My research makes contributions to the still-sparse higher education literature on the persistence of low college graduation rates in the U.S. and its sources. My job market paper, "Why is the U.S. college graduation rate so low? An examination of the changing role of family structure across student cohorts," adds to the literature by looking at the role family structure plays in explaining the relative stagnation of college graduation rates over the past 30 years in the U.S. First, I document the changing family circumstances of U.S. college students, and their relationship to students' patterns of college attendance and graduation, using the 1979 and 1997 cohorts of the National Longitudinal Survey of Youth (NLSY). Thirty percent of youth entering college in the 1979 cohort were from nontraditional families, including single parent families, step families, and other, rarer family structures. By the 1997 cohort, a full 50 percent of college entrants came from nontraditional families. Estimates from graduation probability models that account for ability, family income and wealth, and other relevant observable factors indicate that, in the NLSY's 1979 cohort, being from a nontraditional family is associated with a 3 percentage point lower rate of college graduation relative to those who lived with their both biological or adoptive parents up to age 18. This gap triples to 9 percentage points by the 1997 cohort. All else equal, students from nontraditional families have faced considerably greater struggles in achieving graduation conditional on enrollment in the recent cohort. Furthermore, I apply decomposition methods for nonlinear models to examine the proportion of the change in college completion rates that the estimated graduation model attributes to the change in family structure that took place between these cohorts, as well as to the large realized changes in other relevant student background characteristics. The decomposition results indicate that the model, as estimated, would predict a 12 percentage point decline in the overall U.S. college graduation rate among enrolled students with the observed change from the 1979 to the 1997 NLSY cohort in the share of college students who come from nontraditional families.

Next, the pattern of changed post-secondary decisions documented in this paper, particularly for students from nontraditional families, who are more likely to enroll in low-cost community colleges, suggests that parental support, in the form of residential accommodation and financial transfers, operates as a factor affecting the college enrollment and graduation decision. In a companion working paper, "Moving beyond enrollment: The effect of parental transfers on college access, persistence, and completion," I study the role that financial transfers from parents play in the college enrollment decision, and the extent to which they contribute to college persistence following enrollment. In this paper, I focus on students who enroll in college, and their sources of college financial support over the course of a student's academic career. The 1997 cohort of the NLSY includes detail on college funding drawn from grants, loans, work, and family. In duration models of time spent in college, I estimate the dependence of college persistence on sources of college funding, including funding from family members. The preliminary results demonstrate that students from different family structures exhibit different propensities to stop out, reenroll, drop out, and graduate. By and large, the findings in this paper point to a stronger connection between financial support from parents and college persistence for students from nontraditional families than for students from traditional families. This analytic approach is a contribution to the literature because first it provides additional detail about student flows in and out of college, in particular how parental transfer is associated with these temporal events. Second, in the context of the literature, this may suggest more meaningful college financial constraints for children from nontraditional families.

2 Whom does the FAFSA favor? Quantifying the gap between EFC and ACF for students from divorced families

Each year, 14 million households seeking federal aid for college complete a detailed questionnaire about their finances, the Free Application for Federal Student Aid (FAFSA). Based on the FAFSA, "need" is defined as the difference between the Cost of Attendance (COA) and the Expected Family Contribution (EFC), an estimate of how much the family can pay out of pocket for college. For students from divorced families, provided that the parent with whom the student lives (the custodial parent) is the one filling out the FAFSA, if any existing stepparent is married to the custodial parent at the time that the student fills out the FAFSA, the student must report the stepparent's income and assets. The question I ask is, do stepparents meet the FAFSA-prescribed EFC? If not, what is the gap between the EFC (Expected Family Contribution) and the AFC (Actual Family Contribution)? There are two specific cases I investigate in this project. The first case is one in which a stepparent does not contribute to the student's college study. In this case, the student's financial aid will be negatively affected by the presence of the stepparent. This implies the student's true, underlying need is more than the calculation based on the FAFSA. The second case happens when the custodial parent and stepparent meet the EFC, while the biological parent also makes financial transfers to the child while studying in college, which means the student receives more college financial aid than existing need formulas, using an accurate measure of family support, would prescribe. This ongoing project first points out the potential problem in the FAFSA form for students from divorced families and evaluates the proportion of FAFSA applicants who are affected by this problem. Second, it will quantify the gap between EFC (Expected Family Contribution) and AFC (Actual Family Contribution) for those students affected. With an understanding of the magnitude of the mismatch between ability to pay for college and college financial aid prescribed by the FAFSA among children of divorced parents, and of the prevalence of this situation in the college-going population, I will be able to evaluate proposed FAFSA modifications that account for a more contemporary range of U.S. family structures.

Weibo (Coco) Zhou

Nov 7, 2019

Teaching Statement

Teaching Philosophy and Experience

At Stony Brook, I was an independent instructor responsible for classes of 48 students to 70 students for 4 semesters and a teaching assistant for 7 semesters from 2014 to 2019. I sincerely enjoy teaching, and have strived to motivate my students, pushing them to give their best. Receiving consistently good feedback from my students and professors on my work has bolstered my confidence. Moreover, the teaching phase of my career has greatly nurtured my knowledge and taught me to work with poise under pressure, making me a more reliable and responsible person.

In the next three paragraphs, I will first talk about my teaching philosophy, then share my teaching experience using examples, and finally summarize with some brief thoughts on my enthusiasm regarding new opportunities to work with students and to develop my always-evolving pedagogical methods.

This is how I organized my class when working as the instructor for Economics 320: Mathematical Statistics for 70 students. First, I structured each lecture with an opening motivation, considering as a class why we need to learn these techniques. Second, I wrote some intuitive perspective along with each formula presented, explaining to students the basic idea of each formula using simple and plain English. Examples always followed each formula to help students better understand the class material. Second, I posted lecture notes one week before classes to make sure students have time to preview what we would discuss in class the following week. Every time before starting class, I took attendance first to make sure students came to class and did not miss any crucial material. When I went over class notes, I was always mindful that students respond best to different methods. For the mathematical derivations, I showed students how to solve step by step. After that, to make sure students pay attention to class and follow well, sometimes I asked students to come to the blackboard to try to solve similar questions for extra credits. Since this class involved a lot math, to make students not feel bored, sometimes I shared some interesting things in life with my students and made jokes in class, which was appreciated by my students in the teaching evaluations. For example, one student wrote: "She took attendance to make sure everyone learned the material and often times made jokes to make class more enjoyable."

When I worked as a teaching assistant, I was always ready to help students. First, I made sure I always respond to students' emails in a timely manner, generally within 12 hours. Second, I held extra office hours for students, especially before exams. Many times, the office hours lasted for the whole day in order to answer students' questions and clear doubts, to make sure every student felt comfortable and confident. Moreover, I was always aware of the importance of supporting students who need special accommodations. For example, one semester, I met a student sometimes in the evenings and over the weekends to help her understand lecture notes because she had two part-time jobs such that she could not visit our regular office hours.

Lastly, I also collaborated with professors and helped design homework assignments, recitation material and even exam coverage. For example, when I worked for Prof. Montgomery as his TA, I helped generate the class material for recitations and created homework assignments. I wanted my students to equip themselves with the tools of data management, because these tools will prepare them for their job market in the era of big data. Therefore, I taught them how to write code in Rstudio in our recitations throughout the semester. Then, I shared some of my data with them and asked them to do simple data cleaning work in their homework assignments. I was very happy to see my students trying to learn more coding skills beyond the content of class material and exploring broader knowledge of data science after class.

In sum, I am confident in my teaching abilities and have great enthusiasm for helping students. My teaching experiences at Stony Brook University have enriched my life throughout graduate school. The faculty and students with whom I collaborated in these activities have consistently provided very positive feedback on my teaching work. I find that giving teaching activities, and students, the effort that they truly deserve is difficult but deeply rewarding.

Teaching Interests

I am able to teach courses in Introduction to Economics, Intermediate Microeconomic Theory, and Econometrics, among other courses, at the undergraduate level.

I am also qualified to teach Mathematical Statistics at the undergraduate (UG) and graduate (G) levels if desired.

Potential Courses

Introduction to Economics

Intermediate Microeconomic Theory

Mathematical Statistics (UG/G)

Econometrics (UG)

Summary of Courses Taught

Eco 320 Mathematical Statistics (Online Class, Undergraduate level, Number of Enrolled Students: 49), Instructor, Evaluation: 4.5/5 (Summer 2019)

Eco 320 Mathematical Statistics (Online Class, Undergraduate level, Number of Enrolled Students: 30), Instructor, Evaluation: 4.8/5 (Summer 2018)

Eco 320 Mathematical Statistics (Undergraduate level, Number of Enrolled Students: 69), Instructor, Evaluation: 4.3/5 (Fall 2017)

Eco 303 Intermediate Microeconomics Theory (Undergraduate level, Number of Enrolled Students: 70), TA, Evaluation: 4.7/5 (Spring 2018)

Eco 520 Mathematical Statistics (Graduate level, Number of Enrolled Students: 20), TA, Evaluation: 4.6/5 (Fall 2016)

Eco 321 Econometrics (Undergraduate level, Number of Enrolled Students: 70), TA, Evaluation: 4.3/5 (Spring 2016)

Eco 305 Intermediate Macroeconomics Theory (Undergraduate level, Number of Enrolled Students: 68), TA, Evaluation: 4.4/5 (Fall 2015)

Eco 108 Introduction to Economics (Undergraduate level, Number of Enrolled Students: 68), TA, Evaluation: 4/5 (Fall 2014)

Teaching Evaluations

I include a sample of 10 written evaluations from students, and the full evaluations are available at my web page.

"The instructor was great. She is very smart and LOVES teaching. Like, I went to office hours and she was there and ready to help!"

"The professor is really patient. All questions I had for this course are solved."

"she is great, and I am really appreciate what she done for us."

"The teaching assistant, Ms. Weibo, was a great resource for the course."

"The material of this course is valuable. And it's presented in a clear straight-forward manner. The lectures notes were posted online and helped follow along in class. We also went over examples and that was very helpful."

"The professor went out of her way to make both learning the subject matter and succeeding in the course possible for students. She was extraordinarily open to feedback, and willing to go above and beyond to help students."

"The knowledge I gained from this class will help me in my future with economics when conducting experiments that require any sort of empirical data."

"Weibo was a phenomenal TA who was always very helpful, fair, and supportive."

"Weibo is a helpful and responsible TA. She really took care of students."

"Professor Weibo Zhou did an excellent job with teaching the material. She took attendance to make sure everyone learned the material and often times made jokes to make class more enjoyable. Office hours were very helpful."