Spring 2017 Research Projects

1. Playing Checkers in Chinatown

Prof. José Antonio Espín Sánchez (jose-antonio.espin-sanchez@yale.edu)

In the 1974 motion picture Chinatown the private investigator J. J. “Jake” Gites (Jack Nicholson) is involved in a conspiracy that involved corruption, deceit and “family secrets.” The goal of the conspirators was to buy the lands of unsuspected farmers in the Owens Valley (some 400 miles north of Los Angeles) and then build an aqueduct to bring the water to the city, where it would be worth a fortune. Although, this description is fictional and far from reality, there is much controversy about the way the city of L.A. purchased the water and land rights in the Owens Valley.

The goal of the project is to gather individual unpublished detailed data of all the purchases of land and water rights (1905-1934). With the individual data we will be able to assess whether the prices paid were “fair.” We will also assess why some farmers and not others were able to organize in sellers’ pools. Finally we will test whether the city of L.A. established a purchasing pattern of “checkers,” thereby isolating farmers’ properties in order to buy them later at a lower price.

The goal for the RA will be to help processing the data from the farmer’s plots. She will use GIS software to create maps of the plots and to transform that information into econometric analysis. Knowledge of GIS is helpful, but it is not a requirement. The RA will then help process the data and program the estimators for the econometric analysis. Knowledge of R is recommended.

2. How have National and Multinational Bodies Responded to Financial Crises?

Prof. Andrew Metrick, Michael H. Jordan Professor of Finance and Management, Yale School of Management and Program Director, Yale Program on Financial Stability (andrew.metrick@yale.edu)

The Global Financial Crisis of 2007-2009 was the source of hundreds of interventions by national and multinational bodies working to manage and resolve the crisis, yet these interventions have not been catalogued or codified in any comprehensive way. A similar lack of comprehensive cataloguing and codification is true of other financial crises throughout history. As part of its mission to further the understanding of the management of systemic risk in financial markets among a community of financial regulators and scholars, the Yale Program on Financial Stability is embarking on a multi-year project to develop case studies for each of the interventions attempted by select national and multinational bodies in response to select financial crises. The cases will ultimately form the core of a database to be used by practitioners in the event of future financial crises. We will use a standardized style for the cases, intended to be useful even in an emergency, so that (if necessary), decision makers could search through many cases, find interventions relevant for their current problem, and quickly review the justification for specific design decisions. An example of one of these cases can be found at the link below.

Our undergraduate research assistants would assist full-time YPFS staff in the development of the cases by gathering and reviewing documents and information associated with specified interventions (program term sheets, government reports, academics papers, etc.) and, in some instances, drafting the cases themselves. Successful applicants will have strong research and writing skills, familiarity with financial markets and an interest in learning more about financial crises.

3. **Undergraduate Women in Economics at Yale**

James Thomas ([james.r.thomas@yale.edu](mailto:james.r.thomas@yale.edu))

Only 34% of recent Yale graduates with a major in Economics are women. This is higher than the national average—30.9% in 2014—but still unfortunately low. As part of the multi-school Undergraduate Women in Economics Challenge ([http://scholar.harvard.edu/goldin/UWE](http://scholar.harvard.edu/goldin/UWE)), the Economics Diversity Committee at Yale is working to design, implement, and evaluate policies for increasing female participation in Economics. We are currently at the design stage and would like to hire Tobin RA’s to assist with data analysis. Specifically, the RA would use econometric models to understand what factors lead Yale students to have initial interest in Economics and how experiences at Yale influence whether those with initial interest go on to complete a major in Economics. Experience with econometrics and Stata is required.

4. **Working under Search and Information Frictions: Evidence from an Online Labor Market Experiment**

Prof. Yusuki Narita ([yusuke.narita@yale.edu](mailto:yusuke.narita@yale.edu)) and Prof. Kosuke Uetake ([kosuke.uetake@yale.edu](mailto:kosuke.uetake@yale.edu))

This project empirically studies i) how employers respond to wage and tax/fee changes, ii) how their responses are damped by various frictions in both the demand and supply sides of the labor market such as information and search frictions, and employer-side capacity constraints, and iii) what income tax/fee systems we should design under such frictions.

To do so, we first conduct a randomized experiment at an online crowdsourcing platform to identify how worker behavior changes in response to changes in the income/fee rate that workers need to pay for the platform. Our preliminary results suggest that the observed labor-supply elasticity is diluted by the frictions. We then construct a structural model of labor demand and supply in order to decompose the observed labor-supply elasticity into search friction, information friction, and the underlying structural elasticity.

Finally, using the estimates from the structural model and the behavioral optimal taxation theory, we quantify the welfare and market design implications of the frictions.

**Required skills:** We are looking for an RA to help the empirical side of this project. An ideal candidate is somebody who (1) has done coursework in empirical/applied microeconomics (especially some of industrial organization, labor, public finance, and quantitative marketing) and (2) has done coursework in or at the very least has a strong interest in data work with a programming language such as Matlab, Python, R, or Stata.

5. **Match or Mismatch: Learning and Inertia in School Choice**

Prof. Yusuki Narita ([yusuke.narita@yale.edu](mailto:yusuke.narita@yale.edu))
Centralized matching markets are designed assuming that participants make well-informed choices upfront. However, this project uses data from NYC’s school choice system to show that families’ choices change after the initial match as they learn about schools. I develop an empirical model of evolving demand for schools under learning, endowment effects in response to prior assignments, and switching costs. The estimates suggest that there are even more changes in underlying demand than in observed choices, undermining the welfare performance of the initial match. To alleviate the welfare cost of demand changes, I theoretically and empirically investigate dynamic mechanisms that best accommodate choice changes. These mechanisms improve on the existing discretionary reapplication process. In addition, the gains from the mechanisms drastically change depending on the extent of demand-side inertia caused by switching costs. Thus, the gains from a centralized market depend not only on its design but also on demand-side frictions (such as demand changes and inertia).

See https://dl.dropboxusercontent.com/u/3337473/mismatch.pdf for the latest draft.

Required skills: I am looking for an RA to help with either the theory or empirical side of this project. An ideal theory candidate is somebody who has done coursework in theoretical microeconomics (especially market design). An ideal empirical candidate is somebody who (1) has done coursework in empirical/applied microeconomics (especially some of education, industrial organization, and labor) and (2) has done coursework in or at the very least has a strong interest in data and visualization work with a programming language such as Matlab, Python, R, or Stata.

6. (Non)Randomization: A Theory of Quasi-Experimental Evaluation of School Quality

Prof. Yusuki Narita (yusuke.narita@yale.edu)

In centralized school admissions systems, rationing at oversubscribed schools often uses lotteries in addition to preferences. This partly random assignment is used by empirical researchers to identify the effect of entering a school on outcomes like test scores. This project formally studies if the two most popular empirical research designs successfully extract a random assignment. For a class of data-generating mechanisms containing those used in practice, I show: One research design extracts a random assignment under a mechanism if and almost only if the mechanism is strategy-proof for schools. In contrast, the other research design does not necessarily extract a random assignment under any mechanism.


Required skills: I am looking for an RA to help with either the theory or simulation side of the above project. An ideal candidate is somebody who has done coursework in econometrics (especially causal inference and program evaluation) and theoretical microeconomics (especially market design).

7. Experimental Design as Market Design

Prof. Yusuki Narita (yusuke.narita@yale.edu)

This project investigates the design of randomized experiments with high-stakes treatments such as cancer treatment or basic income. Unlike standard designs, my approach not only randomly assigns treatment, but also caters to subjects’ welfare; as much as possible, the proposed design assigns a treatment to subjects with better predicted treatment effects or stronger preferences for the treatment, where predicted effects and preferences are freely correlated. I am applying the above theoretical idea to real data in a development/health context.
Required skills: I am looking for an RA to help with the theory side of this project. An ideal candidate is somebody who has done coursework in econometrics (especially causal inference and program evaluation) and theoretical microeconomics (especially market design).

8. **Risk Technology, and Agriculture in West Africa**

Christopher Udry, Henry J. Heinz ll Professor Economics, Department of Economics (christopher.udry@yale.edu)

This project investigates the roles of risk and information about technologies to examine agricultural innovation in northern Ghana. The RA will use data from a sequence of surveys detailing changes in farmer knowledge, social networks, and farming activities to evaluate the impact of a randomized experiment involving a new form of microinsurance, and new agricultural extension methods. The RAs will make use of raw survey data to construct useful summary measures of, e.g. knowledge and use of new techniques, communication paths between community members, and measures of yields and profits. The central goal of the project will be to examine program impact on these outcomes by creating summaries of these data by treatment status.

The work will require the RA to do extensive (well-documented, careful) Stata programming to organize the data, analyze the results, and help prepare tables and graphs for papers and presentations.

9. **Efficient Regulation of Pollution from Passenger Vehicles**

Joseph Shapiro (joseph.shapiro@yale.edu)

This project builds methods to design optimal policy for regulating pollution emissions from passenger vehicles. It applies the methods to study the regulation of U.S. passenger vehicles over the last 40 years. Help is needed documenting precise details of current and past U.S. policies; undertaking similar tasks for other countries; and possibly obtaining and cleaning microdata on specific policies from other countries. These tasks will primarily require internet research, library research, and phone interviews with regulators.

Required skills: outstanding writing skills, interest in learning and distilling the details of regulatory design, core economics courses (intermediate micro and intro econometrics), ability and motivation to work independently. Please include a transcript (unofficial is fine) with your application; including a writing sample would be useful though not required.

10. **Taxes and Multinational Entry**

Costas Arkolakis (costas.arkolakis@yale.edu)

This project aims to apply new mathematical techniques to the study of multinational firms’ location choices around the world. In particular, we are interested in understanding how spatial differences in corporate taxation rates, both across regions within countries and across country borders, affect multinational firm location choices. We aim to combine the firm level data on corporate tax schedules around the world, new mathematical tools on computational discrete choice and frontier economic modeling techniques to produce a quantitative study to contribute and inform this debate. We also plan to combine these techniques with modern econometric estimation techniques on moment inequalities.
Required skills: The RA is required to have good knowledge of MATLAB and STATA. Good understanding of econometrics is valuable but not necessary.

11.  
**Working Without Respect: Working Class Aspirations in a Postindustrial Economy**

Gerald Jaynes (gerald.jaynes@yale.edu)

This book project uses a behavioral economic framework to explain the transformations in Labor force participation, marriage, and living arrangements of children primarily among white working class men and women since 1970. Behavioral economics as applied here conjoins a theoretical construct of social psychology, self-verification, with methods of economic analysis to explain economic behaviors. Self-verification refers to a basic human need to receive social affirmation that one’s beliefs about one’s self (our identity) are true. Thesis: Postindustrial inequality’s systemic deterioration in working class men’s wages below a “living wage,” estranges segments of the white working class outside the nation’s “middle class” identity, an estrangement historically reserved for minorities of color; working class white men and women respond to cultural estrangement similar to minorities effecting a restructuring of cultural institutions. Similar working class responses to similar macrosocial conditions, imply objective markers of class position primarily determine life chances; race/ethnicity assumes a codependent causal role in the emergence of within class differences. Within class behavioral similarities strongly challenge culture of poverty claims.

Required skills: An important part of the project requires locating original data for a variety of national surveys since 1950 (Roper, Gallup, General Social Survey) and setting up data base in order to pursue econometric analysis concerning “working class” beliefs and attitudes on certain issues. RA should have had an introduction to statistics and/or econometrics. I will teach everything else needed.

**Application Form**

**Source URL:** [https://economics.yale.edu/spring-2017-research-projects](https://economics.yale.edu/spring-2017-research-projects)