Fall 2014 Research Projects

1. “Women’s Life Cycle Productivity in Bangladeshi Villages”
   Professor T. Paul Schultz

The Tobin Research Assistant would need to know how to manage large data files with STATA software and apply regression methods to account for labor and demographic behavioral differences. I have the basic data files and a copy of STATA 13 for their use. The objective will be to understand the mechanisms by which women increase their earnings, who are provided access to modern, more reliable birth control methods and improved child health inputs on a regular continuing basis. A central question is whether the reduced fertility attributable to the program intervention impacts the woman’s health, body mass index, and thus her labor productivity, or whether the reduction in the morbidity of the woman’s children reduces the demands on her time for child care, allowing her to dedicate more time to predictable work schedules and thereby acquire more vocational experience which is expected to raise her wage. However, increases in her wages are expected to exert both a price (of time) and an offsetting income effect on her desire to work more in the paid labor force for those who were previously working for wages. To quantify this income effect it will be necessary to measure the woman’s or household’s wealth, that may be approximated by the ownership and value of land in these poor agricultural villages. Individual, household, and village data from the NIH 1997 Matlab Socioeconomic Household Survey may then be linked to the Census data from 1974 and perhaps to the Census of 1986. I estimate that the student working about 10 hours per week starting about September 2014 until about December 2014 might complete the first stage of the work, and student then could apply to continue their own work on questions of their design, that could evolve into the student’s research project for their senior essay.

2. ”Long-Run Consequences of the Clean Water Act”
   Professor Joseph Shapiro

Since the U.S. passed the Clean Water Act in 1972, public and private sources together have spent roughly a trillion dollars to decrease water pollution. Almost half of stream and river miles, however, still have water quality so poor that they violate local standards. This research will use new data to assess whether U.S. water quality has improved since the Clean Water Act and will quantify the contributions of the Act to any observed improvements. Research assistance is sought for several tasks: compiling water quality data; concording water pollution codes across datasets; cleaning and merging digitized historic data in Stata; and other tasks that may arise.

3. “Understanding the Impact of the Inception of Medicaid”
   Professor Amanda Kowalski

Medicaid, the United States health insurance program for the poor, was established in 1965. Because of data limitations involved in following up on individuals enrolled in the program almost 50 years later, very little is known about the long term impact of Medicaid on health and labor market outcomes. The Medicaid program is administered by the states, which set their own eligibility guidelines and change them over time. As part of an ongoing project on the long term impact of Medicaid, I would like a research assistant to help me to develop a calculator for Medicaid eligibility that varies across states and time. The first part of this project will involve library research to find Medicaid eligibility thresholds by state in the early years of the program. This portion of the project is largely complete, but additional library research could be necessary. The second part will involve standardizing information from library research and existing calculators to develop a complete calculator for all states and program years in Stata. Some of this portion the project is already complete, but only for later program years, so the candidate will focus on eligibility around inception. The third part will involve regression analysis using the American Community Survey.
Candidates should have a strong familiarity with Stata and an interest in learning more independently. The research assistant will sit in a shared office in the ISPS building at Yale with full-time research assistants working on other health economics projects. The research assistant will also have the opportunity to learn about and potentially participate in those projects, depending on progress on the main project.

The research assistant will be responsible for exploring and analyzing the health insurance variables within New York SPARCS hospital discharge data and reporting results using tables and graphs. Preliminary results will determine next steps. Candidates should have a basic understanding of Stata and an interest in learning more independently.

   Professor Aleh Tsyvinski

Requirement: fluency in Chinese (at the native level). The project studies structural transformation of the Chinese economy from 1953 to present. Main responsibility of the RA will be constructing various macroeconomic datasets, mostly for the pre-reform (pre-1978 period). Extensive library work with primary source Chinese statistical data both at the national and the provincial level is expected.

5. “Economic and demographic change in the long run”  
   Professor Timothy Guinnane

This project studies the relationship between population and the economy over the very long run (approximately 1600-1914) in a region of southwestern Germany. Economists today believe that demographic behavior is closely-connected to education and other issues that potentially affect economic growth. This region of Germany has historical records that make it possible to compile and use especially rich quantitative sources.

Most of the relevant data has already been entered into spreadsheets. The student assistant will help to organize the data and perform preliminary graphical and econometric analysis.

Facility with Excel is required. Some knowledge of Stata is also useful. A student who reads German will be able to help with a broader variety of tasks, but knowledge of the language is not necessary.

6. “The Effect of Electricity Supply on Industrialization”  
   Professor Nicholas Ryan

Firms in developing countries are often numerous, small and unproductive, which may be in part due to poor infrastructure limiting firm technology and size. This project will aim to measure how a major expansion of electricity supply in a large Indian state affected industrialization, mainly on the dimensions of firm entry, investment and employment in manufacturing. The Research Assistant will organize and clean a new database on manufacturing firms from industrial registration records, analyze trends in firm entry and size, and merge this database at a fine geographic scale with data on a recent expansion of the electricity grid, to assess whether this grid expansion contributed to industrialization. The RA should have a strong interest in working with data and basic competence with Stata. Experience with Geographic Information Systems (GIS) and an interest in energy issues are helpful. Basic familiarity with Stata and interest in environment/energy issues are useful though not required.

7. “Cheap Industrial Workers and the Big Push: Evidence from Germany’s Post-war Population Transfer”  
   Professor Michael Peters

In this project I want to study the long-run consequences of labor migration on local labor markets. To do so, I exploit a natural experiment, which arguably generates exogenous variation in population mobility. After the Second World
War, the German population of the Eastern Territories (what is now Poland and parts of Russia, Hungary and the Czech Republic) was expelled and transferred to Western Germany. Within the 18 months from late 1946 to early 1948, roughly 8 million people were transferred. At the time, this amounted to 20% of the German post-war population. The allocation within Germany was decided upon by the Military Governments of the US (in their zone in Southern Germany) and the UK (in their zone in Northern German). There is ample cross-sectional variation of the initial allocation of expellees across counties within Germany and both institutional and geographical features make it possible to construct instruments for the initial allocation. To study the long-run consequences of these labor supply shocks on the respective local labor markets, I want to use microdata from both the German Population Census and the Manufacturing Census, which can be linked to the respective counties. The preliminary findings are as follows:

1. On impact, i.e., in the late 1940s, there is massive reallocation of factors, in that the vast majority of refugees start working as unskilled workers in the manufacturing industries.

2. Counties that received a large share of refugees in 1946 have higher employment shares in manufacturing in 1975 and are intensive in jobs, which use unskilled-bias technologies.

3. Counties that received a large share of refugees in 1946 have higher average wages in 1975. These preliminary findings are qualitatively consistent with “big-push-type”-growth models, where market-size effects induce the emergence of new production techniques, which in turn increase aggregate TFP, wages and welfare.

**Required Skills**

As this project is mostly empirical and uses microdata, it would be helpful if a potential research assistant had some experience in applied econometric analysis and working knowledge of STATA. Furthermore, the project will require some GIS work using historical maps to exploit the regional variation in the data. While previous experience with GIS software would be a plus, I believe these skills could also be acquired on the job. Finally, knowledge of German would be extremely helpful as the primary data sources are in German.

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