Linking Immigration, Innovation, and Firm Entry/Performance
Sari Pekkala Kerr and William Kerr
NBER-CRIW Entrepreneurship-Innovation Proposal

Immigrants constitute a critical part of the U.S. workforce for innovation and entrepreneurship. In 2008, immigrants represented about a quarter of the bachelor's educated workforce in science and engineering, and about half of those workers with doctorates. Immigrants also play a critical role in high-growth entrepreneurship, with various estimates, for example, suggesting that over half of Silicon Valley's entrepreneurs are foreign born.

A striking and under-studied feature of high-skilled immigration to the U.S. is that initial entry for employment purposes is primarily due to firm-sponsored visas, with immigrants either coming directly from abroad or transitioning off of student visas. The H-1B visa program is a primary example, with the firm being the key actor for selecting skilled immigrants to bring to the U.S. In many cases, these skilled immigrants then further transfer to permanent residency status after a few years, at which point they are able to move across employers, start their own businesses, and similar transitions.

Thus, firms play a central role in high-skilled immigration. This is very different from the standard labor economics lens of broad labor markets, and economists are just starting to grapple with these key features conceptually and empirically (along with issues like the unpriced, regulated supply of visas). This progress has been in part hampered by historical data constraints regarding sponsoring firms, but now new data opportunities are emerging. In two recent papers, we have utilized the Census Bureau's Longitudinal Employer-Household Database (LEHD) to understand better how U.S. firms are utilizing high-skilled immigrants and the career trajectory of immigrants/natives across firms.

We propose to write a chapter for the NBER-CRIW volume that will provided an extended perspective and view of the data limitations and opportunities that exist with respect to the LEHD for making progress on these questions. This chapter will include:

- A detailed review of the types of immigration available in the LEHD, the quality of variables and limitations (e.g., lack of visa status), and opportunities in this regard
- A discussion of how researchers can develop empirical models of high-skilled immigration within firms and also the transition of workers across firms, including difficult issues like the partial state coverage of the LEHD
- A depiction of how ethnic inventor data off of U.S. patents can be merged with the LEHD to link to skilled immigrant workforces within U.S. firms to patenting outcomes. This discussion will include both what is currently possible—linking growth of Chinese immigrants in firm XYZ to general growth of patents with inventors that have Chinese ethnic names—to what could be possible with micro links of inventors on patents to specific workers in LEHD
- A review of the CPS match to the LEHD and how it can be utilized for discern STEM-related occupations and then exploiting movements over time
- A general discussion of measuring immigrant-based entrepreneurship in the U.S. and how the LEHD career profiles can be effective for discerning spin-outs, employee poaching, etc.