Better Safe than Sorry: The Impact of Green Card Delays on the Propensity of Foreign STEM Doctorates to Work at Startups

Holden A. Diethorn
NBER

Abstract

In October 2005, newly-binding country-specific green card quotas led to multiple-year delays in the processing of EB-2 permanent residency visa applications for foreign-born STEM doctorates. Using a difference-in-differences approach, I find that temporary resident STEM doctorates subject to EB-2 delays were 7.2 percentage points (42%) less likely to work at a startup in their first decade of employment after the expiration of visa delays. EB-2 visa delays reduced likelihood that Chinese STEM PhDs would work in US startup within a decade post-PhD by 42% (7.2 pp), driven by a 48% (9.2 pp) reduction among Chinese PhDs.

Introduction

Startup are important drivers of innovation, economic growth, and a dynamic economy, but have a high rate of failure [1, 3]. High-skilled immigrants are important to startup success [2] and have increased levels of patenting relative to natives [8, 4, 7].

• EB-2 visa delays reduced likelihood that Chinese STEM PhDs would work in US startup within a decade post-PhD by 42% (7.2 pp), driven by a 48% (9.2 pp) reduction among Chinese PhDs.

Data

• NSF’s Survey of Doctorate Recipients (SDR): nationally-representative longitudinal sample of STEM PhDs.

Results

• EB-2 visa delays reduced likelihood that Chinese STEM PhDs would work in US startup within a decade post-PhD by 42% (7.2 pp), driven by a 48% (9.2 pp) reduction among Chinese PhDs.

Conclusions

• EB-2 visa delays reduced likelihood that Chinese STEM PhDs would work in startups early in their career by 48%.

References


