

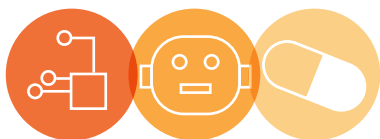
# How Visas for PhDs—And the Immigrants Who Use Them—Propel the Innovation Economy

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Foreign-born STEM PhDs spur economic growth, job creation and national competitiveness. Improving pathways to industry employment and permanent residence — or modifying current pathways through **Optional Practical Training** and **H-1B temporary visas** — are crucial for America's 21st century innovation economy.

## HOW FOREIGN PHDS CONTRIBUTE TO INNOVATION AND ECONOMIC GROWTH



These visas and training programs are essential for doctorates in fields of national importance such as **biopharmaceuticals** (including vaccines), **AI**, and **robotics**.

The majority of doctorates from U.S. STEM doctoral programs are foreign-born; each year **3,000-5,000** new foreign-born doctorates require work visas in industry employment.

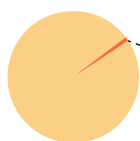


**3k-5k**



Leading firms such as **Google, Qualcomm, and Regeneron** hire these PhDs for their special skills.

## THERE IS GREAT DEMAND FOR STEM PHDS IN INDUSTRY



**1%** PhDs in STEM fields, foreign as well as native, enjoy the lowest unemployment rates among persons of any level of educational attainment. Only about **one percent** are unemployed in the U.S.

Foreign PhDs earn the same wages and work the same hours as U.S. PhDs in R&D occupations, dispelling concerns that foreign PhDs take American jobs at lower pay.



### Starting wages

STEM PhDs on H-1B visas

**\$110,000**

Native STEM PhDs

**\$105,000**

### Hours worked per week

STEM PhDs on H-1B visas

**47 hours**

Native STEM PhDs

**48 hours**

## WHY ARE O.P.T. AND H-1B CRITICAL STEPPING STONES FOR PhDs TO PERMANENT RESIDENCY IN INDUSTRY EMPLOYMENT?



Nearly all PhDs first work in the Optional Practical Training program as a bridge to gaining temporary or permanent work visas, with the majority transitioning first to employer-sponsored H-1B visas.

Obtaining a green card is an inefficient and time consuming process for STEM Ph.D.s, often requiring an H-1B visa only to ensure sufficient time to navigate the system.



The H-1B visa itself is often used as another bridge to a green card.



## USING VISA POLICY TO ENHANCE STARTUP COMPETITIVENESS

- ★ New doctorates receive offers from both established firms and startups, but foreign PhDs are less than half as likely to accept startup job offers, even when they would prefer those positions.
- ★ Visa reforms can make it easier for startups to compete with big tech firms in the battle for PhD talent. But blanket reforms to the H-1B and OPT programs can unintentionally restrict firms' hiring of PhDs and hamper growth.



### KEY DEFINITIONS

**Optional Practical Training program:** Temporary employment that is directly related to an F-1 student's major area of study. Eligible STEM students can apply to receive up to 3 years of O.P.T. employment authorization.

**H-1B visa:** The H-1B program applies to employers seeking to hire nonimmigrant aliens as workers in specialty occupations. A specialty occupation is one that requires the application of a body of highly specialized knowledge and the attainment of at least a bachelor's degree or its equivalent.