New Research: No Evidence Foreign Students in OPT and STEM OPT Reduce Job Opportunities for U.S. Workers

Arlington, Va. – New research from a former Federal Reserve Bank economist finds no evidence that foreign students participating in Optional Practical Training (OPT) reduce job opportunities for U.S. workers, according to a new report released by the National Foundation for American Policy (NFAP), an Arlington, Va.-based policy research group. The study used 9 years of data on foreign students with science, technology, engineering and math (STEM) majors.

The Optional Practical Training program offers foreign students an opportunity to work in the United States temporarily during or soon after completing their studies at a U.S. college or university. Eligible students can work for 12 months (OPT), and students with a degree in a STEM field currently have the option to extend their work period by another 24 months (STEM OPT extension), for a total of 36 months.

“A larger number of foreign students approved for OPT, relative to the number of U.S. workers, is associated with a lower unemployment rate among those U.S. workers,” concludes Madeline Zavodny, a Research Fellow at the National Foundation for American Policy and a Professor of Economics at the University of North Florida (UNF) in Jacksonville. Zavodny, who authored the study, is formerly an economist in the research department of the Federal Reserve Bank of Atlanta and Federal Reserve Bank of Dallas.

The findings are important because international student enrollment has declined in recent years and the Trump administration may issue a regulation that could make the United States a less attractive place for foreign students. The regulation, which according to the administration’s regulatory agenda may be issued in 2019 or 2020, could eliminate STEM OPT entirely, which is used by students with a degree in science, technology, engineering and math, or place new restrictions on the ability of foreign students to work temporarily in the U.S. via the Optional Practical Training program.


This study presents and analyzes new data covering a 9-year period (2008 to 2016) on foreign students with STEM majors approved for OPT after they complete their studies (either via the 12-month post-completion OPT component of the program or via the STEM OPT extension component of the program) and their impact on potentially competing workers. It uses data released by U.S. Immigration and Customs Enforcement (ICE) in response to a Freedom of Information Act (FOIA) request.

The study finds:

- There is no evidence that foreign students participating in the OPT program reduce job opportunities for U.S. workers. Instead, the evidence suggests that U.S. employers are more likely to turn to foreign student workers when U.S. workers are scarcer.
The relative number of foreign students approved for OPT is negatively related to various measures of the unemployment rate among U.S. STEM workers. A larger number of foreign students approved for OPT, relative to the number of U.S. workers, is associated with a lower unemployment rate among those U.S. workers.

Analysis of the data show unemployment rates are lower in areas with larger numbers of foreign students doing OPT as a share of workers in STEM occupations. Comparisons at the state level likewise show a negative relationship.

The number of foreign students approved for OPT as a share of all new graduates with STEM majors is low, ranging from less than one-half of one percent of students earning a bachelor’s degree to 13 percent of PhDs. The number of foreign students approved for OPT as a share of STEM workers is even lower.

The number and share of foreign students approved for OPT has risen over time. The increase is most notable for students with a master’s degree.

The enrollment of new international students declined by approximately 6 percent at both the undergraduate and graduate level in the 2017/2018 academic year when compared with 2016/2017, according to the Institute of International Education. "The number of international students from India enrolled in graduate level programs in computer science and engineering declined by 21 percent, or 18,590 fewer graduate students, from 2016 to 2017," according to a National Foundation for American Policy analysis of government data. The ability to gain practical experience by working temporarily for a U.S. company makes an education in the United States more valuable to foreign students and puts U.S. universities in a better position to attract students in the competitive international education marketplace. It would be logical to assume new restrictions or an end to either OPT or the STEM OPT extension would have a negative impact on the enrollment of foreign students at U.S. universities.

In addition to the practical training and educational benefits for the students, the OPT program gives employers a way to see whether a foreign student is a good fit before trying to sponsor the student for an expensive and scarce H-1B temporary skilled worker visa. For the last 7 years, the STEM OPT extension has given eligible students multiple chances to win an H-1B visa in the lottery held by the federal government for the oversubscribed program. Those additional opportunities can make the difference between individuals gaining H-1B status or needing to leave the country due to a lack of an immigration status after completing their studies.

The Trump administration has put on its regulatory agenda a regulation to be released potentially in 2019 or 2020 that would place new restrictions on the ability of foreign students to work temporarily in the U.S. via the Optional Practical Training program. Since the stated purpose of the regulation would be to “improve protections of U.S. workers who may be negatively impacted by” foreign students doing OPT, this economic analysis of the impact of such students on U.S. workers may help policymakers assess whether new restrictions on OPT or even more dramatic steps, such as eliminating the part of the program that extends the eligibility of science, technology, engineering and math majors, have a rational basis or are more likely to harm the U.S. economy, technological innovation and American universities.

By acting as a safety valve for tight labor markets and a source of STEM workers, albeit on a fairly small scale, the OPT program may contribute to economic growth. STEM workers are vital to the U.S. economy, and a substantial share of STEM workers in the U.S. are foreign-born. Areas with more foreign-born STEM workers have higher patenting rates, faster productivity growth and higher earnings among U.S. natives, among other positive outcomes.

The OPT program is an important way for the U.S. to attract and retain foreign talent. STEM workers are essential to continued robust economic growth, and other countries have stepped up their
attempts to recruit them. The OPT program is a small but important way the United States attracts STEM students and enables them to contribute to the U.S. economy after graduation.

“The results indicate that the OPT program does not reduce job opportunities for American workers in STEM fields,” writes Zavodny. “On the contrary, the results suggest that the program provides a safety valve for employers when they have difficulty hiring STEM workers.”

About the National Foundation for American Policy

Established in the Fall 2003, the National Foundation for American Policy (NFAP) is a 501(c)(3) non-profit, non-partisan public policy research organization based in Arlington, Virginia focusing on trade, immigration and related issues. The Advisory Board members include Columbia University economist Jagdish Bhagwati, Ohio University economist Richard Vedder, Cornell Law School professor Stephen W. Yale-Loehr and former INS Commissioner James W. Ziglar. Over the past 24 months, NFAP’s research has been written about in the Wall Street Journal, the New York Times, the Washington Post, and other major media outlets. The organization’s reports can be found at www.nfap.com. Twitter: @NFAPResearch

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