New Research: International Student Enrollment Dropped 7% at U.S. Universities But Rose 52% at Canadian Colleges and Universities Between 2016 and 2019

Indian Students in U.S. Master’s Level Science & Engineering Programs Declined Nearly 40% But Indian Students Increased 182% at Canadian Colleges and Universities Between 2016 and 2019

Arlington, Va. – Between 2016 and 2019, international student enrollment dropped 7% at U.S. universities but increased 52% at Canadian colleges and universities, according to a new study released by the National Foundation for American Policy (NFAP), a nonpartisan research organization. This is an indication how much easier it is for international students to gain temporary visas and permanent residence after graduating in Canada than in the United States.

The decline in international students is likely to affect the competitiveness of U.S. companies. The number of international students from India enrolled in master’s level science and engineering programs at U.S. universities declined by nearly 40% (or 31,800) between the 2016-17 and 2019-20 academic years, while international students from India studying at Canadian colleges and universities increased 182% between 2016 and 2019, according to an analysis of government data by the National Foundation for American Policy. These numbers are pre-pandemic. Between the 2016-17 and 2020-21 academic years, Indian students enrolled in master’s level science and engineering programs at U.S. universities declined by nearly 56% or 47,230. (The 2020-21 academic year was in the middle of the Covid-19 pandemic.) The latest U.S. data are derived from a National Science Foundation tabulation of Department of Homeland Security student data.


Indian graduate students are a significant source of talent for U.S. technology companies and a key source of entrepreneurs, physicians and researchers in America. However, the difficulties in gaining H-1B status (over 70% of H-1B registrations were rejected for FY 2022 due to the low annual ceiling) and ultimately permanent residence in the United States, along with policies implemented against high-skilled immigration during the Trump administration, lessened the attractiveness of a U.S. education, particularly when compared to Canada.

“Canada has made it much easier than the United States for international students to work and become permanent residents,” said NFAP Executive Director Stuart Anderson. “America will continue to lose talented individuals to other countries until we improve U.S. immigration laws.”

The number of international students from India studying at Canadian colleges and universities increased 182% between 2016 and 2019 while at the same time, the enrollment of Indian students in master’s level science and engineering programs at U.S. universities fell 38%. Indian student
enrollment at Canadian colleges and universities increased nearly 300% between the 2015-16 and 2019-20 academic years. (Indian student enrollment at Canadian colleges and universities rose from 29,487 in 2015-16 and 41,724 in 2016-17 to 117,477 in 2019-20.)

The number of Indians who became permanent residents in Canada increased 115% between 2016 and 2020 and 2021. The increase is much higher if one counts only 2021, but due to processing issues, it is reasonable to take the average of 2020 and 2021 (85,330), representing a rise of 115%, according to a National Foundation for American Policy analysis of data from Immigration, Refugees and Citizenship Canada.

“Canada is benefiting from a diversion of young Indian tech workers from U.S. destinations, largely because of the challenges of obtaining and renewing H-1B visas and finding a reliable route to U.S. permanent residence,” according to Peter Rekai, founder of the Toronto-based immigration law firm Rekai LLP.

In the United States, in the employment-based second preference (EB-2): “Under current law, and owing to a limited number of green card issuances, the current backlog of 568,414 Indian nationals would require an estimated 195 years to disappear,” according to the Congressional Research Service (CRS). CRS estimates that within a decade, more than 2 million people from India will be waiting years or potentially decades for employment-based green cards.

“Under Canada’s Global Skills Strategy, many temporary visa applications for high-skilled foreign professionals are approved within two weeks,” testified NFAP Executive Director Stuart Anderson at a House Immigration and Subcommittee hearing in 2021. “And there is no numerical limit on high-skilled temporary visas in Canada. The Canadian government has made it increasingly easy for employers to attract and retain talent. In the United States, H-1B visas are essential because they typically represent the only practical way for high-skilled foreign nationals, including international students, to work long-term in America. However, numerical restrictions on high-skilled temporary visas block the vast majority of foreign-born applicants from working in America in a given year.”

The number of international students from China enrolled in master’s level science and engineering programs at U.S. universities increased 18% between 2016 and 2019. However, that increase was temporary, and there was a sharp drop in Indian and Chinese master’s level students after the Covid-19 pandemic began. International students from China enrolled in master’s level science and engineering programs at U.S. universities decreased 20% (or 8,210) between the 2016-17 and 2020-21 academic years. (Data on Ph.D.s by field and country were not available for 2019 and 2020.)

The enrollment of international students in master’s level computer sciences at U.S. universities has declined sharply over the past four to five years, fueled largely by the decline in graduate students from India in technical fields. Between the fall 2016 and 2019, international students enrolled in master’s level programs in computer sciences at U.S. universities fell 20%, from 62,270 to 49,900. Between fall 2016 and 2020, the number of international students enrolled in master’s level programs in computer sciences at U.S. universities declined 39% or 24,040.

The story is similar in U.S. engineering programs. Between the fall 2016 and 2019, international students enrolled in master’s level programs in computer sciences at U.S. universities fell 29%, from 60,130 to 42,890. Between fall 2016 and 2020, the number of international students enrolled in master’s level programs in engineering at U.S. universities declined 52% or 31,070.

Between 2016-17 and 2019-20, the number of international students enrolled in all science and engineering programs declined 16% at the master’s degree level and increased 12% at the Ph.D level. However, international student enrollment at both the master’s and Ph.D. level declined in science and engineering in 2020-21.
Making the decline in international enrollment at U.S. universities between 2016 and 2019 even more concerning is that the number of international students between 2016 and 2019 increased 19% worldwide, according to UNESCO, a United Nations agency. That means U.S. universities enrolled fewer international students even though the number of international students around the world increased. After the pandemic hit, the enrollment of international students declined an additional 22.7% at U.S. universities between the 2019-20 and 2020-21 academic years. Comparable 2020-21 figures for Canada have not been published, but other data indicated there was a decline in enrollment at Canadian colleges and universities in 2020-21 due to the Covid-19 pandemic.

Even before the Covid-19 pandemic, U.S. universities saw a more than 7% drop in international students between 2016 and 2019, when enrollment of international students at Canadian colleges and universities increased 52%. The difficulty in international students gaining temporary work visas and permanent residence in the United States compared to Canada contributed to the enrollment of Indian students in master’s level science and engineering programs at U.S. universities declining almost 40% between 2016 and 2019 while international students from India enrolled at Canadian colleges and universities increased 182% during those same years. That is a worrisome sign for America’s technology future due to the vital role Indian immigrants play in science and engineering in the United States. U.S. restrictions on international graduate students from China are another problematic policy development likely to harm U.S. companies, universities and the American economy.

In February 2022, the House of Representatives passed the America COMPETES Act. A handful of provisions in the nearly 3,000-page bill contain what would be the most significant measures on legal immigration since the Immigration Act of 1990. The bill would exempt from the annual limits on employment-based green cards individuals with Ph.D.s in STEM (science, technology, engineering and math) fields and foreign nationals with master’s degrees in critical industries. “Those provisions would be a powerful tool for companies recruiting top talent from around the world,” said NFAP Executive Director Stuart Anderson. The bill would also make it easier for many international students to get a visa by adding dual intent for students in STEM fields. The bill also contains a startup visa for immigrant entrepreneurs that would likely lead to the founding of many cutting-edge companies and potentially over one million of jobs during the course of a decade. The bill’s future and its immigration provisions remain uncertain.

International students help American students in many ways, including by making more classes available through increases in revenue at U.S. universities. International students are also a significant source of talent for American companies. Even before the pandemic, restrictive U.S. immigration policies discouraged many international students from attending U.S. universities. The enrollment figures at Canadian universities, particularly for students from India, show that absent changes in U.S. immigration laws and policies, it will be challenging for U.S. universities to attract international students at the level of even five or 6 years ago. That will harm the competitiveness of U.S. companies and lead to more work and innovation taking place in other countries.

About the National Foundation for American Policy

Established in 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