

DATA SNAPSHOT

# The Essential Role of Practical Training in U.S. Higher Education and the Innovation Economy

INSIGHTS FROM A SURVEY OF CURRENT, FORMER, AND  
PROSPECTIVE INTERNATIONAL STUDENTS

COMMISSIONED BY

**SHORELIGHT**

IN PARTNERSHIP WITH

**PRESIDENTS' ALLIANCE** | ON HIGHER EDUCATION  
AND IMMIGRATION

PRODUCED BY

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## **PRESIDENTS' ALLIANCE** | ON HIGHER EDUCATION AND IMMIGRATION

The nonpartisan, nonprofit Presidents' Alliance on Higher Education and Immigration brings college and university presidents and chancellors together on the immigration issues that impact higher education, students, campuses, communities and the nation. The Alliance is composed of 550-plus college and university presidents and chancellors of public and private colleges and universities, enrolling over 5 million students in 43 states, D.C. and Puerto Rico.

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## **SHORELIGHT**

For over a decade, Shorelight has developed proprietary data and analytics to inform institutions and policymakers on emerging trends impacting student mobility. Alongside the Presidents' Alliance, Shorelight is a founding member of the U.S. for Success coalition, which aims to foster international student success in the U.S. through a coordinated national effort.

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## **W/A** Whiteboard Advisors

For more than 20 years, Whiteboard Advisors has collaborated with the most transformative organizations, individuals and investors in education. Our diverse team of educators, wonks and storytellers brings in-depth understanding of policy, technology and practice to bear on cutting-edge research, powerful writing, and the design of communications and advocacy campaigns that challenge the status quo.

# Executive Summary

High-skilled graduates of the U.S. higher education system — including graduates of in-demand STEM fields — power the technological innovation that is foundational to U.S. economic strength and leadership. Yet, unlike their American counterparts graduating from our colleges and universities, international students who seek to apply their hard-earned knowledge and skills to work temporarily in the U.S. must navigate a complex and uncertain immigration system.

What's worse, while our outdated immigration rules impose barriers on international talent, other nations are opening their doors: continuing to improve their immigration and labor force policies, recruiting directly from the pool of talented international students graduating from U.S. colleges and universities, and seeking a growing share of international students (and the economic value that comes with them).

With over 1 million international students each year, the U.S. is currently the world's leading destination for globally mobile students, but we can no longer take this for granted as other nations work to outcompete us in attracting and retaining top talent.

Higher education has consistently been one of the U.S.'s largest exports, bringing in over \$40 billion annually.<sup>1</sup> In 2020, even in the midst of a pandemic-fueled enrollment drop, education was the sixth largest U.S. services export, equivalent to the total exports for soybeans, corn and textile supplies combined.<sup>2</sup>

In many ways, the primacy of American higher ed is unsurprising: American institutions make up seven of the 10 top colleges in the world, according to the U.K.-based Times Higher Ed ranking.<sup>3</sup> As a result, American institutions can attract the best and brightest.

Preserving the U.S. share of international students begins with understanding what makes an American education valuable and how to retain

our competitive advantage over other global destinations.

For many international students, the ability to work in the U.S. after graduation is critical to their decision to study in the U.S. as opposed to other countries. Today, about 200,000 graduates from U.S. colleges and universities are continuing to refine their skills in the workforce through Optional Practical Training (OPT), which allows temporary employment related to international students' area of study.<sup>4</sup>

OPT plays a critical role in attracting high-skilled talent to enroll in U.S. higher education and is instrumental to retaining America's place as the preeminent destination for international students. The current data snapshot—based on a recent survey of 1,200 current, former and prospective international students conducted by Shorelight and Whiteboard Advisors in partnership with the Presidents' Alliance on Higher Education and Immigration—yields important and timely evidence for these arguments:

- **The length of time available to work after graduation is an important consideration for international students — nearly 70% of students said it was important or very important in their decision of where to study.**

- While safety and longer-term career opportunities are most important to international students considering where to study, the ability to work in the U.S. immediately after graduation ranks a close third.

- Half of those surveyed also considered studying in Canada – a competitive market that has grown 9x in the past two decades thanks in part to intentional immigration and work policies designed to attract international students.
- **If OPT were no longer available, the U.S. could lose up to 43% of international students.** International students feel OPT is an important part of their continued learning. Ninety-three percent of respondents said the opportunity to apply learning through OPT is important or very important, and 4 in 10 students either would not study in the U.S. or are not sure they'd come to the U.S. if OPT was not available. Of those students, a majority would choose to study in Canada, Europe and the U.K. instead.
- **A 43% decline in international students would cost the U.S. \$17.2 billion annually.** The U.S. would also lose out on the talent of many highly skilled graduates who play a vital role in supporting the U.S. economy and workforce.
- Fewer international students and graduates also means fewer jobs for Americans: In the 2022-23 school year, international students' contributions to the U.S. economy supported almost 370,000 jobs.<sup>5</sup>
- In spite of claims to the contrary, there is no evidence that students participating in OPT "take jobs" from American students. In fact, they create jobs.<sup>6</sup>

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“As a former international student myself, I know first-hand the profound contribution international education not only makes to individual students but also to America’s economic and national security. And I strongly believe that educational opportunity is the surest way to build solutions for our greatest global challenges. Optional Practical Training (OPT) is a critically important part of the educational experience for international students at our universities and is central to advancing America’s STEM leadership in the 21st century. This data snapshot illustrates what is at stake as we seek both to advance national priorities and expand opportunity for talented young people across the world.”

–Raj Echambadi, President, Illinois Institute of Technology and Co-Chair, Steering Committee, Presidents’ Alliance on Higher Education and Immigration

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# Introduction

Technological innovation is an increasing imperative for economic and national security. As a result, the flow of international students to the U.S., especially those coming to study and work in science, technology, engineering and math (STEM) fields, has perhaps never been more vital. Each year, over 1 million students come to study in the U.S., and almost 200,000 graduates from U.S. colleges and universities stay in the country and continue to refine their skills in the workforce through Optional Practical Training (OPT)<sup>7</sup>, which allows students to apply their learning through work in relevant fields.

Yet, even as the White House calls for more high-skilled immigration to support research and development of artificial intelligence (AI)<sup>7</sup>, our nation risks falling behind in attracting and retaining international talent because talent-seeking nations like Canada have enacted policies to expand work rights. As a result, the U.S. is bringing in a smaller and smaller share of international students – with impacts to our economy, talent pipeline and global competitiveness.<sup>9</sup> Ultimately, the U.S. Congress must act to protect OPT work opportunities for international students.

To better understand student perceptions and expectations related to international study and the ability to gain applied learning experience in the workplace, Whiteboard Advisors and Shorelight Education, in partnership with the Presidents' Alliance on Higher Education and Immigration, conducted a survey of over 1,200 international

students, international alumni and prospective international students. This data snapshot offers insights into why international students choose the U.S. and what might lead them to choose other nations for study – and what that means for American higher education institutions and employers.

## Global Competition for International Students Is Growing

In 2000, the U.S. held a majority share of students across the four countries with the most international students.<sup>10</sup> And while the overall number of international students enrolling in higher education in the U.S. has grown, the U.S.'s slice of the overall international student pie has shrunk: Over the past 22 years, the U.S. has lost 20% of its share to countries like Canada, the U.K. and Australia.<sup>11</sup>

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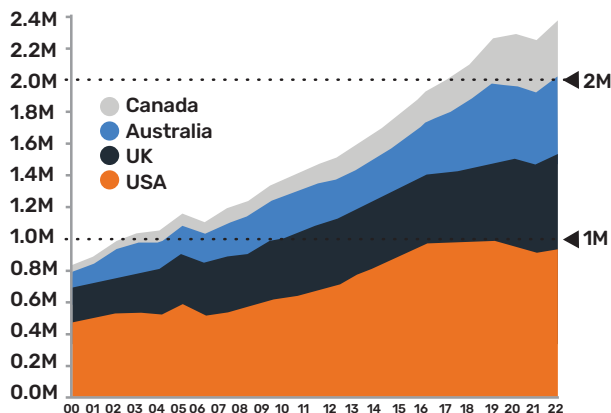
“Attracting and retaining the best and brightest talent coming out of U.S. colleges and universities is critical to building an innovative and globally competitive U.S. economy.”

–Dane Linn, Senior Vice President, Business Roundtable

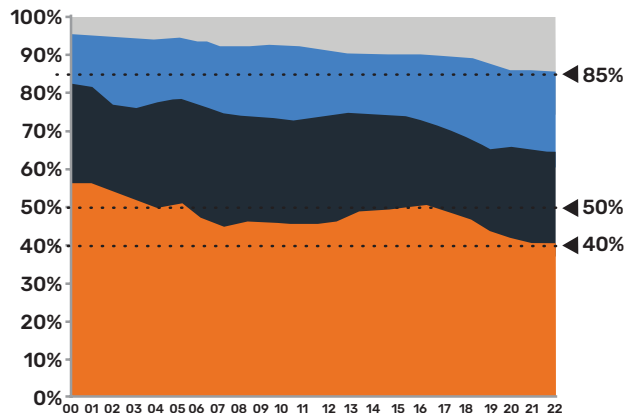
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## The US has lost approx. 17% of share to 'Big Four' competitors UK, AUS, and CAN

Total Inbound International Students, Big Four



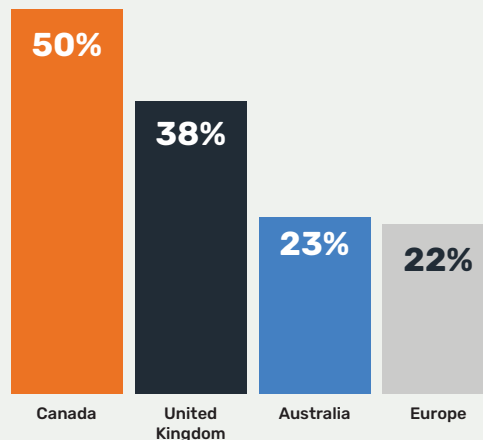
Total Share of Big Four Inbound Int Students



Source: HolonIQ, UNESCO Total inbound internationally mobile students, both sexes (number). US gaps in UNESCO Data from 2000-2012 based on 92% of Open Doors Flows (Average UNESCO % of Open Doors for UNESCO vs Open Doors Data 2013-2020).

The economic impact from this loss is significant. If the U.S. had retained the 60% market share it had in 2000, the U.S. economy could have benefited from \$20 billion in additional spending from an additional 350,000 international students.<sup>12</sup> Retaining the current share—and potentially recapturing lost share—will require a concerted effort to understand how international students decide where to study and how the U.S. can bolster those criteria.

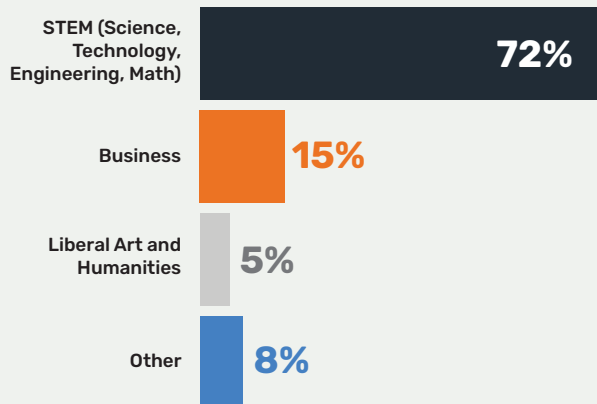
**Q:** What other countries or regions are you considering for your studies?



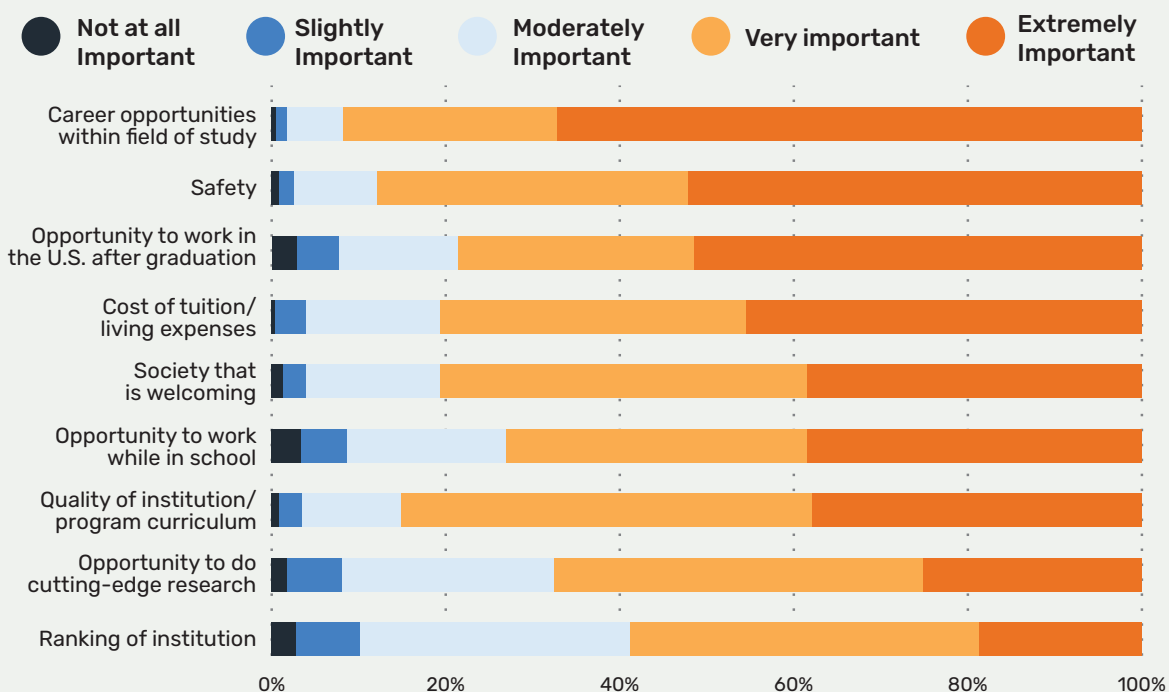
## Expectations of International Students: Economic Opportunity, Safety and the Chance to Apply Learning Through Work

Students come to the U.S. for all levels of higher education—undergraduate to doctorate degrees—seeking access to a flexible education system; cutting-edge research facilities; and most importantly, career prospects. Increasingly, international students are coming to the U.S. to study at the graduate level, and they are studying STEM subjects.

**Q:** What is your current area of study, or potential area of study (or most recent, if not currently studying)?



**Q:** How important were each of the factors below in choosing where to study?



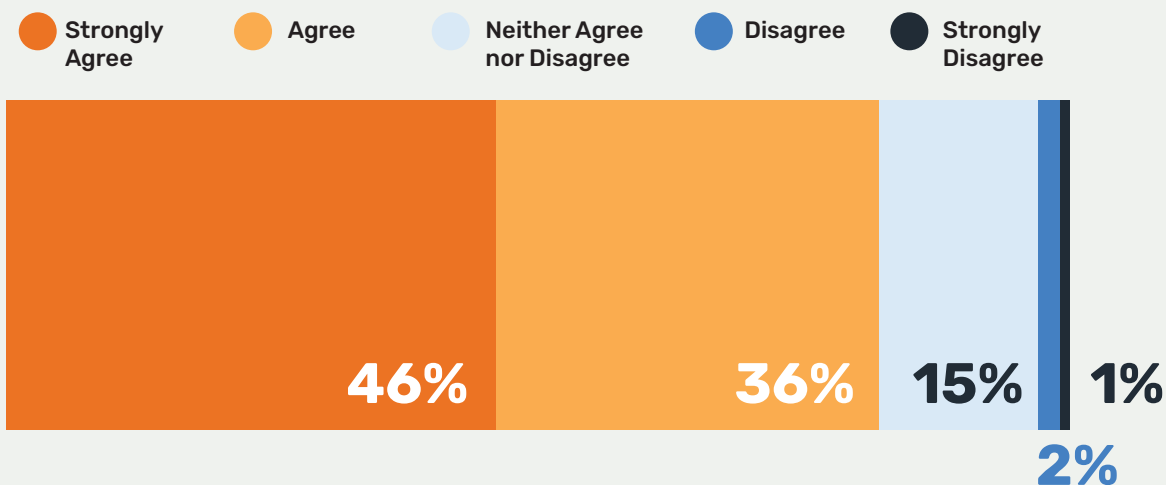
International students often see studying in the U.S. as a path toward economic opportunity. When asked which factors were important in choosing a place to study, career opportunities were students' top choice for being "extremely important," followed by safety and the opportunity to work in the U.S. after graduation. This demonstrates the importance of the potential for international learners to remain in the U.S. postgraduation to apply their hard-earned knowledge and skills.

OPT is an important piece of the student experience: More than 80% of survey respondents said the ability to apply their learning through OPT influenced their decision to come to the U.S.

And 4 in 10 students compare the length of time available to work in the U.S. through OPT to the work rights offered by other countries.

The way that international students perceive opportunity in the U.S.—to study safely, to pursue academic interests, to work—has considerable influence on the ability of the U.S. to attract future international students. Both the campus experience at an institution and its reputation are often shared through informal networks of students currently studying or those who have recently graduated, who share insights with those considering studying.

**Q:** To what extent do you agree or disagree with the following: The opportunity to apply learning and work in a relevant area using OPT influenced or will influence your decision to study in the U.S.



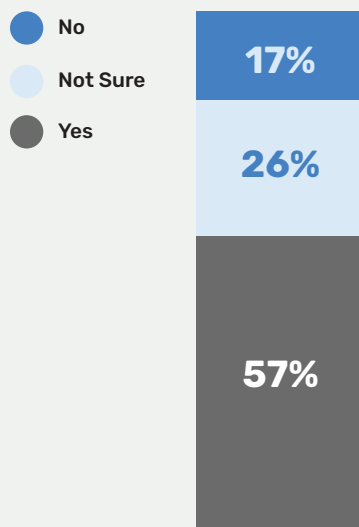


## Economic Impact of International Students Choosing Not to Come to the U.S.

Right now, the U.S. is fortunate to be the top choice for many international students. Students currently enrolled or who have graduated, as noted earlier, often share their experiences and

recommendations with prospective students. This is a virtuous circle for America, but it also holds the potential to become a vicious cycle where more and more international students choose alternatives to the U.S. for their studies. If international students don't have the ability to stay and work after graduation, especially in an area relevant to their academic study, the potential for a vicious cycle increases.

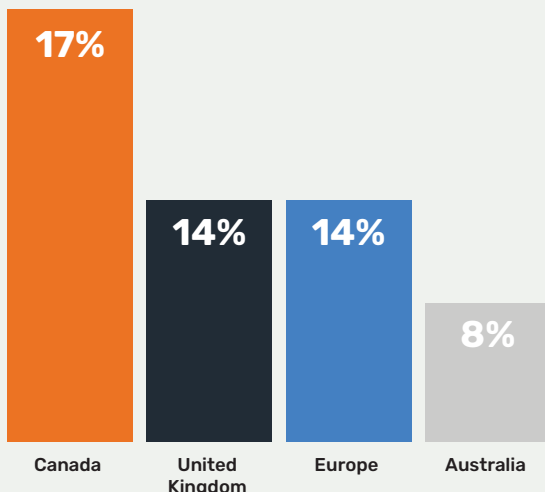
**Q:** If OPT were no longer available, would you still choose to study in the U.S.?



Because OPT is a regulatory structure (rather than something codified in law), its status is consistently under threat. Most recently, a case questioning the legality of OPT made its way all the way to the Supreme Court in fall 2023. While the court declined to take the case, these challenges create uncertainty around OPT that further dulls the U.S.'s competitive edge.

When prospective students were asked if they would still choose to study in the U.S. if OPT were no longer available, **43% said they would not or were not sure they would.** The elimination of OPT could mean a loss of over 580,000 students coming to the U.S. to study every year.

**Q: If OPT was no longer available, where would you study instead?**



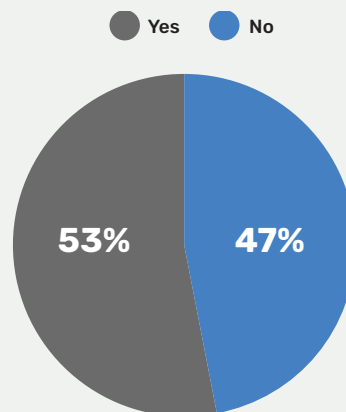
Countries like Canada and the U.K. have expanded their work rights, ranging from extended postgraduate work permits, visas designed to attract STEM talent, and clear pathways toward permanent residence status.<sup>13</sup> The U.S. will almost certainly lose international students to Canada specifically – already a top alternative – if OPT ceases to exist.

The loss of OPT would exacerbate a trend already in progress. Between 2016 and 2018, students from India attending universities in Canada increased by more than 100%. In that same period, Indian students in graduate-level engineering and computer science programs in the U.S. declined by 25%.<sup>14</sup>

The majority of students rely on the work opportunities provided by OPT to meet the criteria to qualify for and pay off their loans.

If OPT were limited or removed, these students would no longer be able to access the funding to study in the U.S. As the flow of

**Q: If you are using a loan to pay for school, does your loan require applied learning (for example, working under OPT)?**



international students to the U.S. shifts toward India and Africa (and away from China), international students' reliance on loans will likely grow.

Of course, this will not be without impact to the American economy. **If 43% of students were to choose to study elsewhere because OPT was no longer available, it would result in a loss of \$17.2 billion each year.** Research shows that if OPT were reduced by 60% and foreign-born student visas were reduced by 35%, the labor market would lose 443,000 jobs a year. This includes 255,000 jobs that American citizens hold.<sup>15</sup>

Looking more broadly at overall economic growth, Business Roundtable estimates that just a 35% decline in international students studying in the U.S. and a 60% decline in OPT participation would cause American gross domestic product (GDP) to decrease by 0.25%— or about \$57 billion—based on 2023 GDP.<sup>16</sup>

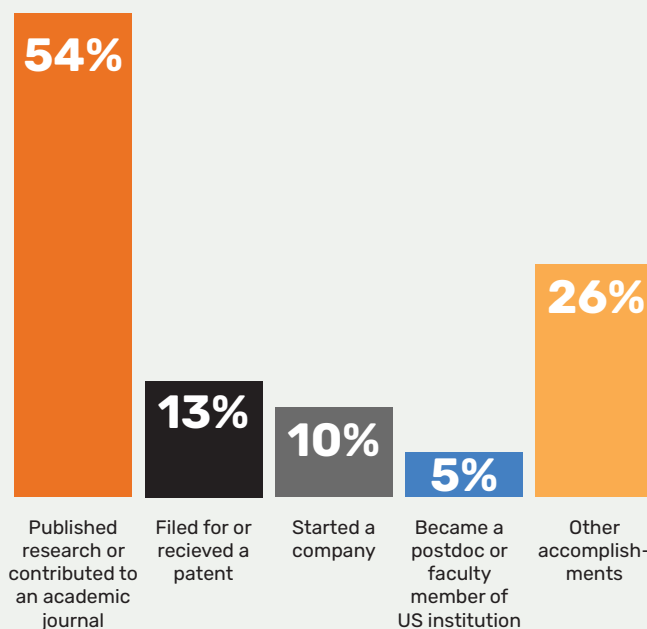
## International Students: Drivers of Innovation and Entrepreneurship

In addition to international students' lower spending, a decline in enrollment would also have knock-on effects elsewhere in our higher education system and economy.

International student enrollment is the reason that many STEM graduate programs are financially feasible for institutions to offer, ultimately subsidizing the programs to help American students.<sup>17</sup> As it stands, American demand for STEM graduate programs is not sufficient to maintain the current number of programs available without additional enrollment of international students.

Additionally, international students provide valuable research and entrepreneurial momentum in the U.S. economy, from filing patents to serving as higher education faculty.

**Q:** Do any of the following apply to you?



Survey respondents' accomplishments reflect the productivity of the broader population of foreign-born workers across the country. Regions in the U.S. that employ a larger number of international STEM talent have higher patenting rates, faster productivity growth and higher earnings for American workers.<sup>18</sup> The STEM workforce relies on foreign-born workers, but the U.S. can't keep up with meeting this demand. Every year for the last six years, employer submissions for H-1B applications for new temporary workers in specialty occupations, like STEM, have exceeded the statutory limit allowed each year in the first week alone.<sup>19</sup>

## What's Next: Policy Response

To attract and retain international students who make the U.S. more globally competitive and contribute immeasurably to the social and cultural life of U.S. campuses and communities, the U.S. must modernize U.S. immigration law. Specifically, Congress should act to maintain OPT and create a path to legal permanent residency (green cards) for international students who graduate from U.S. higher education institutions so that there are predictable pathways to live and work here.

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“When deciding whether to study in the U.S. or my home country, Optional Practical Training (OPT) was a significant factor. OPT allowed me to put my classroom learnings into practice in real-world situations, where I learned so much more. OPT has been an essential part of my education and professional development.”

–Current OPT Participant

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# Appendix

## Survey Methodology and Demographics

Whiteboard Advisors and Shorelight Education, in partnership with the Presidents' Alliance on Higher Education and Immigration, collaborated to conduct a survey of current, former and prospective international students to understand their considerations for choosing to study in the U.S. as well as the impact of OPT on students' decision-making process.

The survey includes responses from over 1,200 current, prospective or former international students, sourced from Shorelight's network of students, alumni and prospects. Data was gathered from Sept. 7-30, 2023 (a few additional responses to round out the sample were gathered from mid-October to mid-November 2023) and analyzed via the Qualtrics platform.

A majority of respondents (57%) are currently studying at a college or university in the U.S. Nearly one-third (32%) of respondents are prospective students (those considering studying in the U.S.); 7% are participating (or awaiting approval to participate) in OPT; and 4% are previous students in the U.S.

Over half of respondents (52%) are from India; 7% are from China; 5% are from Nigeria; 7% are from elsewhere in Asia; and 6% are from elsewhere in Africa.

Students considering or seeking a graduate degree make up the majority of survey respondents at 71%. Those considering or seeking an undergraduate degree make up 27%, and the remaining 2% report other.

# Appendix

## Endnotes

1. Banks, R. (n.d.). *International Student Economic Value Tool*. NAFSA: Association of International Educators. <https://www.nafsa.org/policy-and-advocacy/policy-resources/nafsa-international-student-economic-value-tool-v2>
2. Bound, J., Braga, B., Khanna, G., & Turner, S. (2021). *The Globalization of Postsecondary Education: The Role of International Students in the US Higher Education System* (p. 2). National Bureau of Economic Research. [https://www.nber.org/system/files/working\\_papers/w28342/w28342.pdf](https://www.nber.org/system/files/working_papers/w28342/w28342.pdf)
3. Times Higher Education (2023, September 27). *World University Rankings 2024*. <https://www.timeshighereducation.com/world-university-rankings/2024/world-ranking>
4. Open Doors. (2023, November 13). Open Doors 2023 Fast Facts. *International Students*. <https://opendoorsdata.org/annual-release/international-students/#download-data>
5. Banks (n 1).
6. Ibid.
7. Open Doors 2023 *Fast Facts*, 2023.
8. Exec. Order No. 14110, 88 FR 75191 (October 30, 2023).
9. Zavodny, M. (2019). *International Students, STEM OPT and the U.S. STEM Workforce* (p. 18). National Foundation for American Policy. <https://nfap.com/wp-content/uploads/2019/03/International-Students-STEM-OPT-And-The-US-STEM-Workforce.NFAP-Policy-Brief-March-2019.pdf>
10. Anderson, S. (2023). *U.S. Immigration Policy and the Competition with China*. National Foundation for American Policy. <https://nfap.com/wp-content/uploads/2023/12/US-Immigration-Policy-and-the-Competition-with-China.NFAP-Policy-Brief.2023.pdf>
11. HolonIQ (2023, April 12). *US International Education in 2030. 6 Charts, Top 20 Source Countries and Preliminary Forecast*. <https://www.holoniq.com/notes/us-international-education-in-2030-6-charts-top-20-source-countries-and-preliminary-forecast>
12. Ibid.
13. Ibid.
14. (2022). *International Students and American Competitiveness* (p. 11). Business Roundtable. <https://www.aau.edu/sites/default/files/AAU-Files/Key-Issues/Immigration/International%20Students%20%26%20American%20Competitiveness%20.%20AAU%20BRT%20Report%20.%20October%202022.pdf>
15. Ibid., 5.
16. (2018). *The Economic Impact of Curbing the Optional Practical Training Program* (p. 1). Business Roundtable. [https://s3.amazonaws.com/brt.org/BRT-OPTProgramReport\\_1.pdf](https://s3.amazonaws.com/brt.org/BRT-OPTProgramReport_1.pdf)
17. Ibid., 7.
18. Khanna, G. (2021). How Higher Education Became an Important US Export. *Issues in Science and Technology*, 38(1), 30-33. <https://issues.org/international-students-us-higher-education-statistics/>
19. Zavodny (n 7).