

Market Intelligence

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Early Warning Signals

Winners and Losers in the
Global Race for Talent





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A Word from Our Chair

The Oxygen of Innovation

In 2016, emails from excited members of our community started arriving in my inbox almost as soon as Forbes had posted the news online. At 26 years old, and less than three years after graduating with a business master's degree from Duke University, Derrick Xiong was named to *Forbes*' "30 under 30" list. I was not surprised.

Derrick is originally from China. He arrived at Duke after studying engineering at Nanyang Technological University in Singapore, where he graduated with honors. Not only was Derrick exceptionally smart, but he had an entrepreneurial mindset and knew he wanted to sharpen his business skills. Less than a year after earning his master's in management studies, Derrick co-founded Ehang, a successful drone company, which has received much attention for its progress in developing a driverless air taxi.

Ehang's main headquarters is in China. Its North American partner is headquartered in Silver Spring, Maryland. However, Derrick works all over the world—including a partnership with a company in Austria, which plans to manufacture the air taxis. If Derrick is successful, his company will benefit economies around the world—in part by creating thousands of jobs.

Derrick's story is a good example of the upside of mobility. His exposure to people and ideas in three different countries fueled innovation that founded a company aiming to revolutionize future travel in cities and communities.

During my decades in higher education, stories like Derrick's have become more common. There are countless examples of how students studying in one region of the world apply that knowledge in ways that benefit other locations. When brought together, the best and brightest tend to spark ideas that go well beyond borders. In many ways, mobility—specifically as talent collides—is the oxygen of innovation.

Yet, we are now in danger of cutting off that oxygen. The rise in nationalism around the world has led to a backlash against mobility as nations turn inward and seek to keep immigrants out. The result could eventually suffocate economies.

The timing for this trend is particularly bad. Countries left behind now will have a very difficult time catching up during a period of such rapid innovation that some are calling it the Fourth Industrial Revolution—a critical period in which technology is reshaping much of what we know, especially the future of work.

Hence, this paper.

Business schools must take the lead on explaining the link between immigration and innovation. Our scholars have long studied what sparks economic growth and, empirically, we know talent mobility is a driving factor. Academic research also shows that fully growing and developing talent depends on exposure to new ways of thinking, encountering vastly different perspectives and being pushed outside one's comfort zone. Nationalistic silos will ultimately backfire against countries if talent is limited by their own borders. Countries earnestly trying to help their citizens could unintentionally end up doing the opposite.

In addition, business schools are privy to a key indicator of talent flows via the number of students who cross borders to study. In recent years, we have witnessed significant and unprecedented dips in interest in some regions of the world, especially the United States. Policymakers should pay attention to why international students are no longer interested in these regions—not because business schools affected could be hurt, but because this is an early warning to economies that they are losing the race for talent. And therefore, future growth.

Changes in immigration policy, particularly as it relates to work permission postgraduation, can make all the difference in how our economies develop. Even a change in rhetoric could have a major impact. Thus, we are suggesting some concrete steps governments can take to help foster the flow of talent and grow economies.

Mobility of talent is not just a higher education issue, a political issue or a business issue. It is an issue about creating opportunity for our future. Talent will be the economic advantage in the decades ahead. Countries that welcome and nurture job creators like Derrick Xiong will be the economic winners. The welcome mat is the roadmap to future economic success.



Bill Boulding

Graduate Management
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Chairperson of the Board

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Introduction

In a knowledge economy, talent is the single most important resource. Robotics and AI may dominate the discussion about the future of work, but this truth prevails. As compared to the manufacturing-intensive economy of our past, which was heavily reliant on capital, the economy to which we are transitioning today requires talent above all else. And the reality is, it is talent that is in shortest supply. Nations that prioritize its development, its attraction, its retention, and its movement across borders will be best positioned to compete. In a world of machines and algorithms, competitive advantage will come from the exchange of human capital.

Yet, against this backdrop, we find ourselves in an age of rising nationalism, where anti-immigration sentiment has found fertile ground. Indeed, the discontent many feel about inequality and wage stagnation has birthed growing antipathy at worst, and disinterest at best, toward immigration, including the migration of talent across borders.

To be certain, the first order of business for any country should be to extract the most value from the human resources already existing within that country—making sure that all groups are participating fully and realizing their potential in the economy. Businesses and governments should be undertaking initiatives to ensure that more workers are trained for the changing nature of work. Yet, even with these initiatives in place, domestic resources will not be enough for economies that want to remain competitive in the future.

Increasingly, negativity towards international talent is manifesting in a number of countries around the world. One-third of people who voted for Brexit in 2016 cited immigration as their primary reason.¹ In France, half of all respondents in a recent Ipsos poll say they view foreigners as a threat to French values, and 46 percent see them as a risk to the economy.² In Germany, 38 percent rate immigration as the most important issue facing the nation.³ In Brazil, anti-immigrant violence is rising,⁴ and President Jair Bolsonaro withdrew the country from the UN Compact on Migration. In India, 29 percent of

people think there should be less immigration to the nation, and a further 16 percent believe there should be none at all.⁵ And in a 2016 survey conducted by the Public Religion Research Institute and *The Atlantic* on sentiments in the United States, nearly half of white, working-class Americans agree with this statement: “Things have changed so much that I often feel like a stranger in my own country.”

In effect, at a time when the movement of talent has become increasingly vital to productivity growth in many economies, we are actively erecting—or at risk of erecting—impediments to its flow. Nowhere is this more evident than in the world’s largest economy with the most to lose: the United States.

Business schools around the world have an upfront and exceptional vantage point to this phenomenon. Not only are they often gatekeepers to skilled immigration in many countries, but globally, they play critical roles in developing talent for the knowledge economy. They also, through applications and admissions data, have firsthand insight into the movement of talent around the world today—making this data a powerful indicator of future mobility trends.

Through this unique lens, this paper examines in greater depth *why* the movement of talent is critical to the growth of tomorrow’s global economy and individual economies. It brings to light the impact that is being felt today in both historically talent-attracting and talent-supplying countries because of the rise in nationalist, anti-immigration rhetoric. It seeks to answer why an international student body is important for business schools and what would happen if business schools became merely “national” in a global economy. Through a view of applications data in select economies, it shows where talent is successfully flowing today and foreshadows what we can expect a decade from now as it pertains to who is winning and losing in the battle for skills. Lastly, it provides recommendations on policies that nations could adopt as they prepare to compete in a world where talent is the most important resource.

¹ Hjelmgard, K. & Zoroya, G. (June 2016). Exploding UK immigration helped drive ‘Brexit’ vote. *USA Today*. <https://www.usatoday.com/story/news/world/2016/06/28/exploding-uk-immigration-helped-drive-brexit-vote/86424670/>

² The Local. (2019). A fragmented country: What does it mean to be French today? Retrieved September 1, 2019 from: <https://www.thelocal.fr/20190206/what-does-it-mean-to-be-french-today-deeply-divided-poll-reveals>

³ Frum, D. (April 2019). If liberals won’t enforce borders, fascists will. *The Atlantic*. <https://www.theatlantic.com/magazine/archive/2019/04/david-frum-how-much-immigration-is-too-much/583252/>

⁴ Langlois, J. (May 2017). An anti-immigration rally in Brazil turns violent. *Los Angeles Times*. <https://www.latimes.com/world/mexico-americas/la-fg-brazil-immigration-20170503-story.html>

⁵ Devlin, K. (March 2019). A sampling of public opinion in India. Retrieved September 1, 2019 from: <https://www.pewglobal.org/2019/03/25/a-sampling-of-public-opinion-in-india/>



The Importance of Global Talent Flows

As we face a changing future of work, where more tasks and jobs will be automated, STEM skills and business talent will become increasingly integral to the jobs that remain and to economic growth. In 2019, PwC's Annual CEO Survey showed that talent is a top concern for global CEOs, and one which has increased significantly since 2013. In particular, the survey notes that "Organizations are struggling to translate a deluge of data into better decision making. There is a shortage of skilled talent to clean, integrate, and extract value from big data and move beyond baby steps toward AI."⁶

As such, the ability to transfer and move talent across borders will determine the success of businesses and individual economies in fueling growth. But this is nothing new; history shows that the flow of global talent has always been important. Broadly, there are significant impacts on innovation, job creation, and even the transfer of wealth and insight to the talent-producing economy. Perhaps no nation has benefited more richly from an influx of global talent than the United States—making it a helpful model for examining the potential economic gains from enabling talent to move across borders.

As case in point, since 2000, roughly one-third of all US Nobel Prize laureates in chemistry, medicine, and physics were immigrants.⁷ Of Fortune 500 companies, more than 40 percent were founded by immigrants or their children.⁸ And government data shows that almost one-third of US college-educated science and engineering workers are foreign-born.⁹

Indeed, immigrants play an outsized role in innovation and entrepreneurial activity. According to a Brookings Institution study, "...while immigrants represent about 15 percent of the general US workforce, they account for around a quarter of entrepreneurs and a quarter of inventors in the US. Moreover, over a third of new firms have at least one

immigrant entrepreneur in its initial leadership team."¹⁰ For startup firms valued at \$1 billion or more, in particular, immigrants have started more than half, and they play key management and product development roles in more than 80 percent of these companies.¹¹

Other research has found that international STEM talent working in the United States on H-1B visas have an important impact on American productivity. According to economists Giovanni Peri, Kevin Shih, and Chad Sparber, this talent accounted for between 30 and 50 percent of the aggregate productivity growth in the United States between 1990 and 2010.

Despite common misperceptions, the flow of talent is not necessarily a zero-sum game. When talent gravitates toward environments that best utilize their skills, it fosters global growth, with the potential to make everybody better off. As Harvard Business School professor William Kerr notes in *The Gift of Global Talent*, "outmigration can even benefit a talent-sending country if the overseas workers provide their home country with special insights and business linkages. The prospect of immigration also encourages students to make deep investments, which can aid talent-sending countries, as many young people eyeing international opportunities never actually leave."¹²

It's not just the outmigrants themselves, or even their connections, that can be valuable to home countries. It's these outmigrants' ability to push ideas from their host countries back home and their ability to serve as helpful networks and resources for business development to their native lands. In *The Gift of Global Talent*, Kerr continues on page 140 "global talent also acts as a 'centrifugal force' that pushes ideas outward, whether through MBA entrepreneurs returning home or Rocket Internet's launch teams. Access

to young, global talent drove GE to Boston, but the city also helps diffuse ideas, such as when a Thai student at Northeastern University sees a smart-connected product that is perfect for the family business in Bangkok."

From a business school perspective specifically, the increasing globalization of education confers a multitude of benefits to students within the domestic market. This includes not only a deeper understanding of foreign business practices, business climates and cultural nuances, but the global relationship-building that can begin in the classroom.

In the words of Brandon Kirby, director of MBA Marketing and Admissions at the Rotterdam School of Management—where 98 percent of students are international and 75 percent come from outside the European Union—"In the absence of having the cross-cultural experience before business school, a program where you spend an intense year working alongside of an international cohort provides the level of cultural experience for a global career, which most business school students want. It's a realistic simulation of what it's like to lead an international team." The impact of limiting classrooms to only domestic students hampers the ability

of these students to become effective business leaders in a globally interconnected world. The harm is not limited to the international students but is equally felt by domestic students.

And yet, while the flow of global talent has the capacity to drive immense economic benefits, it would be wrong not to acknowledge the tension it has created in many parts of the world. Unfortunately, the issue of global talent has become subsumed into broader conversations around illegal immigration; important nuances and points about skilled immigrants and students studying in schools have been washed out in the larger emotional debate about securing US borders. That aside, not everyone has benefited equally from the influx of global talent, specifically older technology workers. For these displaced workers, effective retraining and reskilling has not been available to the extent that it needs to be, and this must be addressed. As the global economy continues to transition to a knowledge economy, it is increasingly important for policymakers to recognize the importance of global talent as a source of competitive advantage for every economy; those who choose to erect boundaries stand to lose a lot.



⁶ PwC. (2019). *22nd Annual global CEO Survey: CEO's curbed confidence spells caution*. <https://www.pwc.com/mu/pwc-22nd-annual-global-ceo-survey-mu.pdf>

⁷ McBride, S. (June 2014). Immigrants win one third of U.S. Nobel prizes in key fields. *Reuters*. <https://www.reuters.com/article/us-immigration-nobelprizes-idUSKBN0EG2KP20140605>

⁸ Hathaway, I. (2017). Almost half of Fortune 500 companies were founded by American immigrants or their children. <https://www.brookings.edu/blog/the-avenue/2017/12/04/almost-half-of-fortune-500-companies-were-founded-by-american-immigrants-or-their-children/>

⁹ National Center for Science and Engineering Statistics. (2018). *Science and engineering indicators 2018*. Retrieved from: <https://www.nsf.gov/statistics/2018/nsb20181/report/sections/science-and-engineering-labor-force/immigration-and-the-s-e-workforce>

¹⁰ Bahar, D. (2017). A spicy red sauce and how immigrants generate jobs and growth in the US. Retrieved September 1, 2019 from: <https://www.brookings.edu/blog/up-front/2017/02/07/a-spicy-red-sauce-and-how-immigrants-generate-jobs-and-growth-in-the-us/>

¹¹ Anderson, S. (October 2018). Immigrants and billion-dollar companies. Retrieved on September 1, 2019 from: <https://nfap.com/wp-content/uploads/2019/01/2018-BILLION-DOLLAR-STARTUPS.NFAP-Policy-Brief.2018-1.pdf>

¹² Kerr, W. (2018). *The gift of global talent: How migration shapes business, economy & society*. Redwood, CA: Stanford University Press (p. 11).

View of the United States

“The wealth of 21st century America is not found in farms and mines but in the skill and productivity of its people.”

– David Frum, *The Atlantic*, April 2019



For decades, the United States has been the beneficiary of a global brain gain, and industries from technology to consulting have prospered as a result. Today, facing a declining birth rate, a future of work that will be increasingly dependent on STEM skills, and an inadequate domestic pipeline for training STEM workers, the nation’s need for global talent shows no signs of abating.

Recent business school application data, however, foreshadows that the advantage the United States has long enjoyed, may soon come to an end. This year, in 2019, the United States experienced a 13.7 percent decline in international business school applications—a steeper decline than any other country in the world, and a drop that came amid largely rising or stable applications everywhere else in the world, according to the Graduate Management Admission Council™ (GMAC™) Applications Trends Survey Report 2019, the Council’s annual snapshot of admissions trends for graduate business programs. Conversely, both Canadian and European programs saw application increases, which were driven primarily by rising international demand.¹³ For the United States, these numbers are a worrisome indicator for the future mobility of talent—especially for business leaders who now cite the hiring and retention of talent as their number one business concern.¹⁴

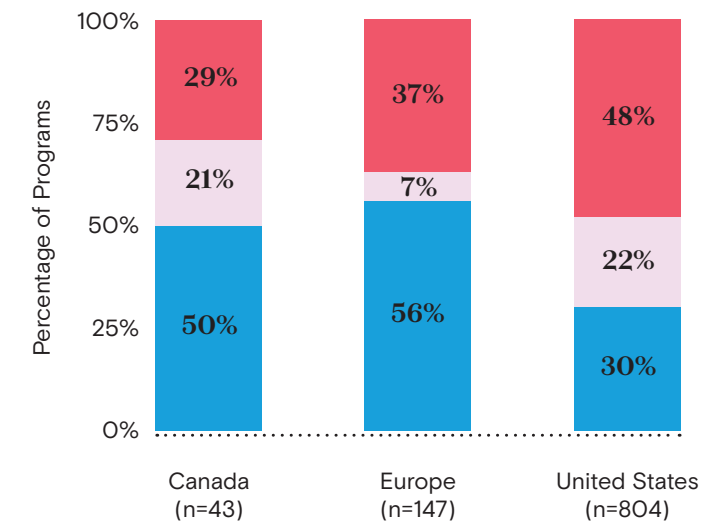
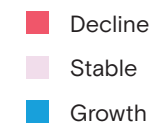
The US story is part of a continued downward shift in international business school candidates who cite the United States as their preferred study destination, which began in

2009 but sharply intensified over the last few years. After falling from 54 percent to 48 percent between 2009 and 2016, figures further dwindled to 44 percent in 2017, 40 percent in 2018, and 37 percent in the first half of 2019. Preference for Europe, in contrast, grew from 31 percent to 38 percent between 2016 and the first half of 2019.

Data from prospective applicants coupled with insights from business school deans point to a few key factors in the US decline—some newly emerging and some which have been developing over time. Paramount are the changes to the H-1B visa cap, which have resulted in far fewer job opportunities for international students upon graduation and greater uncertainty about a future in the United States. Following the expiration in 2004 of the 195,000 cap, the number of H-1B visas now annually available has diminished to an adjusted cap of 85,000. Issued on a first-come, first-served basis, every year the demand for H-1B visas outweighs the supply. For instance, in 2019 190,098 H-1B petitions were filed for 85,000 visas.

For Indian students in particular, the ability to work and potentially settle for the long term in the United States is a primary reason for applying to US business schools. Two-thirds agree that not being able to obtain a job in the United States postgraduation would prevent them from pursuing business school there (66%). The same was true for 52 percent of candidates from China.¹⁵

Relative Year-on-Year Change in International Applications, by Program Location



Source: GMAC, Application Trends Survey Report 2019, <http://www.gmac.com/apptrends2019>

¹³ Graduate Management Admission Council. (2019). *Application trends survey report 2019*. <http://www.gmac.com/apptrends2019>

¹⁴ *Duke University/CFO Global Business Outlook*. Optimism sinks to 3-year low; recession expected before 2020 election. Retrieved September 1, 2019 from: <https://www.cfosurvey.org/press-release/optimism-sinks-to-3-year-low-recession-expected-before-2020-election/>

¹⁵ Graduate Management Admission Council. (2019). *mba.com prospective students survey*. <https://www.gmac.com/market-intelligence-and-research/market-research/mbacom-prospective-students-survey>

This current imbalance in the supply of visas versus demand comes at a price for future economic growth. As Matthew Slaughter writes in *The Wall Street Journal*, “There are tangible costs to the US economy of allocating far fewer skilled-immigrant visas than companies need. Most immediately, the cost is forgone jobs. Over the long run, the cost is forgone ideas, innovation and connections to the world.”¹⁶

In the face of H-1B visa challenges, Optional Practical Training (OPT) has emerged as one potential workaround for US businesses looking to retain international students, and specifically those with STEM skills. This is especially relevant as every company becomes in some way a technology company, and more industries—from manufacturing to health care—rely on workers with STEM training. The OPT program currently enables international graduates or students to gain one year of practical training in their field of study—and longer for STEM designated areas of study. While there is no cap on OPTs, in August 2018, immigration officials did move to limit how much time students can remain in the United States when they aren’t taking classes.¹⁷

In conjunction, an increasing number of business schools are offering programs that have STEM designation—to fill the gap for STEM workers and enabling international students to apply for OPT-STEM. For instance, the University of Virginia’s Darden School of Business launched a new STEM-designated management science specialization; Duke University’s Fuqua School of Business now offers two programs that have STEM designation—the traditional MBA program and a new data analytics-focused program; and in 2018, University of Rochester’s Simon School of Business received approval for all full-time MBA programs to be fully STEM designated.

Overlaying fears about finding employment is an increasingly influential factor that reflects less of a national *policy* change and more of a change in social climate transpiring in the United States. This stems from growing anti-immigration rhetoric, the effects of which are playing out in all parts of the world. The majority of Indian (54%) and Chinese (50%) candidates surveyed in 2018 agreed that the political environment would prevent them from applying to a US

business school. Forty-four percent of Indian candidates and 58 percent of Chinese candidates agreed fear for their safety and security would prevent them from pursuing a US degree.¹⁸

The cost of a graduate business education is one of the largest investments that a student will make; making that investment in an economy that is perceived to be not only uncertain, but also unwelcoming, is a growing risk for many international students and one that fewer are choosing to make.

The United States has long benefited from a first-mover advantage in business education, being viewed globally as the premium provider of the graduate business degree. The nation and businesses have profited because of it, in terms of talent attraction. In turn, this globalization has benefitted business schools in terms of the quality and relevance of education they are able to provide in a global economy.

How long this advantage endures remains to be seen. As US business schools become more nationalized and no longer resemble the international networks that are critical in a global economy—as they portend to do—will they still hold their international appeal?

What data is already bearing out is that talent will flow to where it is welcome and where greater certainty around job prospects exist.

“As an immigrant and as a CEO, I’ve both experienced and seen the positive impact that immigration has on our company, for the country, and for the world.”

– Satya Nadella, CEO of Microsoft¹⁹

¹⁶ Slaughter, M. J. (April 2019). Immigrants for the heartland. *The Wall Street Journal*. <https://www.wsj.com/articles/immigrants-for-the-heartland-11556479867>

¹⁷ Gee, K. (October 2018). New immigration data show where foreign students study and work. *The Wall Street Journal*. <https://www.wsj.com/articles/new-immigration-data-show-where-foreign-students-study-and-work-1541016014>

¹⁸ Graduate Management Admission Council. (2019). *mba.com prospective students survey*. <https://www.gmac.com/market-intelligence-and-research/market-research/mbacom-prospective-students-survey>

¹⁹ Weinberger, M. (January 2017). Read the email Microsoft President Brad Smith sent employees on Trump’s immigration order. *Business Insider*. <https://www.businessinsider.com/microsoft-president-brad-smith-donald-trump-immigration-2017-1>



View of Canada



In recent years, Canada has laid out the welcome mat to global talent writ large, capitalizing on the opening left by the United States to attract the high-skilled labor its economy needs. According to the Conference Board of Canada, the nation will need three million more high-skilled workers—such as engineers and doctors—in 2020 than it had in 2010.²⁰ In a nation of just 37 million people—and facing demographic challenges—attracting talent from overseas is the only way Canada could reach such volume. While immigrants comprise one-fifth of the population, they hold about half of all STEM degrees, according to government data.

Employing tactics such as hoisting billboards in Silicon Valley advertising the country as a great place to work, Canada has worked to aggressively recruit talent. In November of 2016, the country announced its Global Skills Strategy program, intended to facilitate an easier entry into Canada for top talent and a more predictable path for employers to attract foreign talent. The Global Skills Strategy included several changes including: two new work permit exemptions for short-term work in Canada; the creation of a Global Talent Stream for skilled occupations in shortage and for employers with unique talent needs; and a two-week work permit processing time for eligible high-skilled workers.²¹

At the same time, Canada has placed emphasis on attracting business school applicants. As fewer international students apply to the United States, more students are zeroing in on the potential opportunities awaiting in Canada. In 2019, Canada saw an 8.6 percent uptick in international business school applications—a positive signal for the country’s future and mobility trends ahead. This follows on the heels of a 16.4 percent increase in the prior year.²²

This trend is true across Canada’s higher education system. In 2014, the Canadian government set an ambitious goal of attracting 450,000 international students by 2022—double 2011 numbers. It met that goal in 2017, and there are now 572,000 foreign students attending Canadian institutions of higher education at all levels.²³ In the words of Chris Busch, the University of Windsor’s assistant vice-president, enrolment management, “[Canada’s] immigration policy is the primary driver. It allows international students

to work during and after their studies, and provides a pathway to permanent residency, which some 60 percent of international students planned to seek, according to a 2018 [Canadian Bureau for International Education] survey.”²⁴

Collectively, these efforts are bearing fruit, when it comes to shoring up talent for the economy for the long-term. In 2017, Canada gained 286,000 permanent residents, and aims to have a total of one million new residents by 2021²⁵—with a particular focus on high-skilled labor. This positions the nation to yield economic benefits in the years and decades to come.



²⁰ Ramsey, A. (n.d.). The real reasons Canada needs more immigrants. *Reader’s Digest*. <https://www.readersdigest.ca/culture/why-canada-needs-more-immigrants-now/>

²¹ Beltempo, C. (June 2017). Canada launches new Global Skills Strategy. Retrieved on September 1, 2019 from: <https://www.nortonrosefulbright.com/en/knowledge/publications/15227e13/canada-launches-new-global-skills-strategy>

²² Graduate Management Admission Council. (2019). *Application trends survey report 2019*. <http://www.gmac.com/apprends2019>

²³ MacDonald, M. (May 2019). International student enrolment continues to soar in Canada. *University Affairs*. <https://www.universityaffairs.ca/news/news-article/international-student-enrolment-continues-to-soar-in-canada/>

²⁴ Canadian Bureau for International Education. (2018). *The Student’s Voice: National Results of the 2018 CBIE International Student Survey*. https://cbie.ca/wp-content/uploads/2018/08/Student_Voice_Report-ENG.pdf

²⁵ Newman, K. (January 2019). Canada wants 1M more immigrants by 2021. *U.S. News & World Report*.

<https://www.usnews.com/news/best-countries/articles/2019-01-11/canada-wants-to-welcome-more-than-1-million-immigrants-by-2021>

View of the United Kingdom



The looming prospect of Brexit has brought both uncertainty around, and greater focus on, the subject of immigration, and more specifically, high-skilled migration to the United Kingdom. While the impacts of a future Brexit on immigration have yet to solidify into any predictive pattern, what is clear is that there is growing awareness of the vitality of talent to the future economy—among business and government alike.

A 2018 survey of employers found that 3 in 5 firms reported experiencing a more difficult time finding talent over the previous year, and 50 percent expected the United Kingdom's skills shortage to worsen further in the future. Facing Brexit, employers cited potential difficulties around future visa arrangements and the “right to remain” for European Union (EU) citizens as areas of concern, which could ultimately limit access to international talent.²⁶ As part of the EU, UK-based employers have traditionally had access to 500 million citizens that they can hire without immigration processing.

Reflecting the importance of and increasing need for international talent and labor, the United Kingdom has made a number of positive moves in recent months to make it easier for high-skilled immigrants to come to or remain in the UK after graduating from university. Specifically, Prime Minister Boris Johnson announced the return of longer post-study work visas for international students, effectively reversing the stricter regulations implemented under Prime Minister Theresa May. Under the new plan, eligible international students can work, or look for employment at any skill level, for two years after completing their studies. There is no cap on the number of students who can apply.

Prior to that, the UK's Migration Advisory Committee recommended expanding the number and types of professionals from outside the EU who are allowed to skip the line for high-skilled worker visas—increasing it from 1 percent currently to 9 percent of all jobs. The proposed changes would add veterinarians, speech and language therapists, and psychologists to the list of “shortage occupations” and expand visas in occupations such as computer programmers, web developers, and civil and mechanical engineers.

In the words of Professor Alan Manning, chair of the committee, “Unemployment is lower, vacancies higher and free movement [of EU nationals is] no longer providing the

ready supply of workers it once did for some employers. In addition, there is considerable uncertainty surrounding Brexit and the future immigration system.”²⁷

Though the skills shortage is no doubt being felt, and portends to become worse post-Brexit, to date the situation regarding the flow of migrants has been one of two realities. In recent months, net migration from the rest of the EU to the United Kingdom has fallen to a six-year low. Conversely, non-EU migration has *increased to the highest level since 2004*, driven largely by Asians coming to the United Kingdom for work or study.²⁸



²⁶ Chapman, B. (September 12, 2018). Brexit threatens to worsen skills shortage as three in five firms report more difficulty hiring staff. *Independent*. <https://www.independent.co.uk/news/business/news/brexit-uk-skills-shortage-business-problems-hiring-open-university-a8533876.html>

²⁷ Warrell, H. & Romei, V. (May 29, 2019). UK urged to expand skilled occupations open to migrants. *The Financial Times*. <https://www.ft.com/content/bf18661e-81f0-11e9-9935-ad75bb96c849>

²⁸ O'Carroll, L. (November 29, 2018). EU net migration to UK falls to lowest level in almost six years. *The Guardian*. <https://www.theguardian.com/uk-news/2018/nov/29/eu-net-migration-uk-falls-lowest-level-almost-six-years>

International applications to business schools in the United Kingdom mirror this latter trend. Counter to what one might assume, international applications to UK business schools have remained strong and steady; 61 percent of UK programs reported an increase in international applications in 2019 over the prior year, and the share of Graduate Management Admission Test™ (GMAT™) score reports sent to UK programs has increased slightly since 2016, according to a report released by GMAC in March 2019.²⁹

Moreover, the percentage of international students identifying the United Kingdom as their first choice for business school has actually *increased* since the EU referendum. Fifty-four percent of test takers surveyed by GMAC in December 2018 said Brexit had no impact on the attractiveness of Britain as a place to study, up from 46 percent in December 2016.

However, just over half of *non-British Europeans* surveyed by GMAC said that Brexit had made them less likely to choose the United Kingdom as a study destination. Driving their decision-making process was the concern that when Britain leaves the EU, it could restrict or complicate the student visa process and limit their postgraduate job prospects.³⁰

The resilience of the United Kingdom as a destination for international study is likely attributed to the longstanding reputation of British business schools as it pertains to building a network and gaining international experience. UK business schools, Oxford especially, have long championed a very specific goal to be global and have placed emphasis on recruiting internationally, particularly from Africa.

In the words of Peter Tufano, Dean of Saïd Business School at University of Oxford, “Our MBA classes should reflect the leadership of the world in the future, not today. While only 1.9 percent of all GMAT test-takers in 2018 were from Africa, it is impossible to argue that only 2 percent of the world’s leaders will be African or working in Africa in a quarter century. We set a goal of having more than 10 percent of our class from Africa and have succeeded each year since 2016. Not only does this composition of our class help to train the next generation of African leaders, but also it ensures

that their classmates become aware of the opportunities on the continent. We live in a community where everyone is a minority, and we are stronger as a result.”

Also worth noting is the increasing affordability of the United Kingdom as a place of study. Declines in the value of the pound after the vote to leave the EU, have resulted in tuition fees in Britain being relatively cheap for international students, particularly for those who would otherwise apply to US business schools.

From a policy angle, efforts have been underway to bring more international students to the United Kingdom. In March 2019, legislation was introduced to increase the number of international students from 460,000 today to 600,000 in the coming decade. A potential drawback, however, is that the plan enables students to only work for six months after undergraduate and master’s degrees and 12 months postdoctorate—comparatively less than students could find in Canada, the United States and Australia.

While the fact that international students are still flocking to British business schools is good news, the United Kingdom should not get complacent. Britain’s government tacitly admits this fact. The UK Visa Bureau’s Shortage Occupation List is dominated by high-skill jobs in engineering and health care.³¹ The Edge Foundation, moreover, found that shortages in skilled technical workers cost the British economy £63 billion a year.³²

The upshot is that, regardless of the outcome of the Brexit situation, Britain must continue to train and attract high-skill talent. Britain has a long-term high-skill labor shortage; the fact that international attendance at British business schools has remained strong should not lull the United Kingdom into a false sense of security.

²⁹ Graduate Management Admission Council. (2019). *Brexit and Graduate Management Education in the United Kingdom*. <https://www.gmac.com/market-intelligence-and-research/research-library/admissions-and-application-trends/brexit-and-graduate-management-education-in-the-united-kingdom?fromsearch=1>

³⁰ GMAT test-takers; GMAC (2019) *Brexit and Graduate Management Education in the United Kingdom*. <https://www.gmac.com/market-intelligence-and-research/research-library/admissions-and-application-trends/brexit-and-graduate-management-education-in-the-united-kingdom?fromsearch=1>

³¹ United Kingdom Visa Bureau. (n.d.). UK shortage occupations list. Retrieved September 1, 2019 from <http://www.visabureau.com/uk/shortage-occupations-list.aspx>

³² The Edge Foundation. (2018). *Skills shortages in the UK economy*. Retrieved September 1, 2019 from <https://www.edge.co.uk/SkillsShortagesBulletin2>



View of India

“We believe that diversity of business experience will help leaders become more innovative and create leaders who will succeed in the future.”

– Azim Premji, Chairman of Wipro³³



³³ Premji, A. (January 12, 2010). What I look for in young leaders: Azim Premji. *People Matters*. <https://www.peoplesmatters.in/article/best-practices/what-i-look-for-in-young-leaders-253>

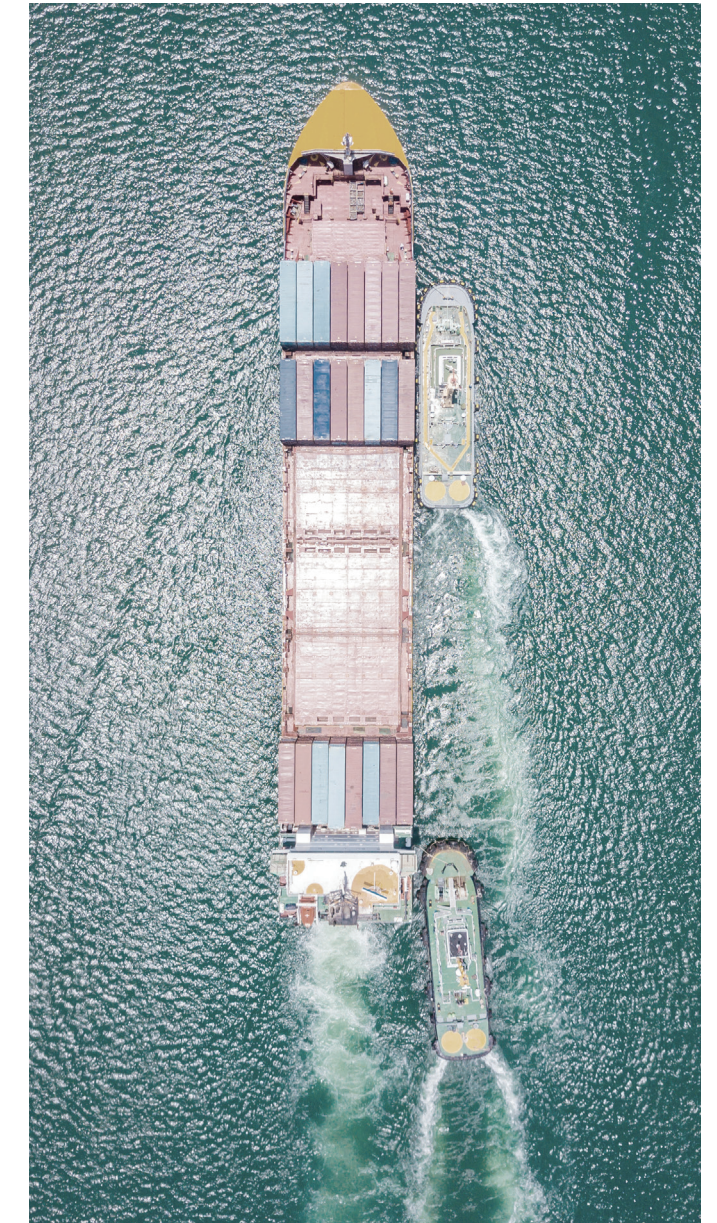
India has long been regarded as one of the world's largest talent exporting nations. Yet as the country evolves politically, economically, and demographically—with a burgeoning youth population (of 600 million under the age of 35), widespread youth support for Prime Minister Modi's government, and a move toward urbanization and many social reforms—it remains to be seen whether this trend will continue, especially as the United States becomes less welcoming overall. What is not up for debate is the fact that a skilled workforce and job creation (spurred by manufacturing and the high-tech sector) are vital for any future economic growth that the country hopes to unlock. According to the Organization for Economic Cooperation and Development, today, India faces one of the worst skills shortages in the world, and 61 percent of Indian firms have reported struggling to find qualified applicants for open positions.³⁴

A view of business school application data shows that the movement of talent from India to other parts of the world continues, with an uptick in interest in domestic schools. Historically, India has ranked second only to China in the number of students choosing to study abroad. As compared with China, where more students choose to return home after graduating from business school, many Indian students have opted to obtain a master's in business abroad in part because of the ability to build a career in that country afterwards. As such, recent restrictions on work visa rules in the United States have led to a decline in Indian students applying to the US programs. Specifically, the percentage of Indians sending their scores from the GMAT exam to US business schools fell from 57 percent in testing year 2014 to 45 percent in testing year 2018, according to GMAC data. During that same period, the percentage of Indian GMAT test takers sending their test scores to Indian schools rose from 15 percent to 19 percent.

As Indian candidates' preference for the United States has waned, their preference for other countries has trended up. When asked to identify their one preferred study destination country, over the past five years Indian candidates have decreasingly selected the United States (from 54% in 2014 to 39% in 2018) and increasingly selected countries such as Canada (4.7% to 12.2%), France (2.4% to 8.1%), Germany (2.1% to 4.4%), the United Kingdom (6.6% to 8.3%), and Singapore (3.8% to 4.9% over the same period).³⁵

Simultaneously, Indian business schools are actively seeking to internationalize their classrooms and attract more international talent. The government has started giving institutions more autonomy through their “Institutions of Eminence” program, and business schools have started aggressive international recruitment programs.

Succeeding in bringing more business school graduates back to India would be in the country's best interest, perhaps more acutely today than ever before, as the challenge of job creation looms heavily on the government. Luring back “job creators”—who could also help to supplement the nation's education system in teaching the skills for the information economy—would help to generate the growth for India that the world has long anticipated.



³⁴ Organisation for Economic Co-Operation and Development (Nov. 2014). *India policy brief*. Retrieved September 1, 2019 from <https://www.oecd.org/policy-briefs/India-Improving-Quality-of-Education-and-Skills-Development.pdf>

³⁵ GMAC (2019) GMAT Geographic Trends Report. GMAC (2019) mba.com Prospective Students Survey.

View of China

“This is a good time for China to stand up and say, ‘Hey, come to us. We like you. We welcome immigrants.’”

– Robin Li, CEO of Baidu³⁶



³⁶ Wong, F. & Rivers, M. (April 2017). China tech billionaire: We welcome immigrants. *CNN Business*. <https://money.cnn.com/2017/04/26/technology/china-baidu-ceo-robin-li-immigrants/>

While the need for talent applies to every economy, the combination of China’s demographic challenges (an aging population and the effects of the one-child rule) and its aspirations for growth in the new economy make talent retention and attraction a particularly pressing issue for the country.

With a birthrate in 2000 of 1.22 births per woman (well below replacement rate), and one that hovers even lower today at 1.05,³⁷ the most populous country on Earth will not have enough working-age people to support its aging population without major efforts to develop, attract and retain labor—including high-skill labor. It is a reality that Chinese businesses are already feeling and one that government is actively confronting.

In a poll of 1,000 Chinese firms by JP Morgan Chase,³⁸ 93 percent reported shortages of workers with “internationalized management” skills, and 89 percent reported shortages of workers with “strategic planning” skill sets. Other studies have found similar results. A survey of 1,200 Chinese firms by Hays found 97 percent “struggling to find skilled individuals,” and that “the problem is worse than ever.”³⁹

Responding to the demographic writing on the wall, the Chinese government has made the development of a highly skilled workforce an increasing priority over the last decade, with the issue of the National Medium- and Long-Term Talent Development Plan in 2010 and in 2008 the Thousand Talents Plan (TTP)—an effort to reverse the brain drain for China. As stated when launched, TTP’s goal is “to attract and support high-level talent from overseas, over the next five to 10 years, to innovate and form companies around national key innovation projects, key disciplines and key laboratories ... in line with national development goals.”⁴⁰

In the decade-plus since launching, roughly 7,000 Chinese scientists, academics and entrepreneurs living abroad have come back to China through the program. The promise of a one-million yuan starting bonus, with the opportunity to apply for a research fund of 3 to 5 million yuan, coupled

with the possibility of additional incentives and subsidized expenses has been part of the program’s appeal. Others have found the opportunity in the Chinese economy today enough of an incentive.

As one Chinese executive phrased it, “I used to lead a team of 20 in one of the world’s most valuable tech companies in Silicon Valley. But within three years in China, I was promoted to chief scientist of our entire company. Leading a team of 1,000, I get to apply artificial intelligence from health care to finance.”

In tandem, the government has placed an emphasis on the cultivation and attraction of entrepreneurs and startups to disrupt established industries, especially as the economy transitions from a manufacturing to knowledge economy. According to the Ministry of Science and Technology, in 2018 almost 80,000 companies in strategic emerging industries, from new energy vehicles to advanced equipment manufacturing, received support from government-run incubators—just one reflection of China’s increasing focus on cultivating STEM talent.⁴¹

Against this backdrop, China has historically been—and remains—the number one exporter of students for business school education. The growth of business schools within the country, however, coupled with rising tensions in US-China relations, may very well reshape this trend in the coming years. As case in point, China’s Ministry of Education warned Chinese students to “strengthen risk assessment before studying abroad.”⁴² And for those who do leave for education, figures show that more are choosing to return—whether as a result of TTP, nationalism elsewhere, or an improving economy and the opportunity open to aspiring leaders.

In the words of Denis Simon, executive vice chancellor at Duke Kunshan University and Professor of China Business and Technology at Duke’s Fuqua School of Business, “For years, the United States serendipitously was the beneficiary of the brain drain from China. Now, more and more quality talent is returning to China, and China is the direct beneficiary. And the more difficult the US job environment

³⁷ Fuxian, Y. (January 2019). Worse than Japan: how China’s looming demographic crisis will doom its economic dream. *South China Morning Post*. <https://www.scmp.com/comment/insight-opinion/asia/article/2180421/worse-japan-how-chinas-looming-demographic-crisis-will>

³⁸ J.P. Morgan Chase and Co. (2016). *Skills shortages in the Chinese labor market executive summary*. Retrieved September 1, 2019 from: <https://www.jpmorganchase.com/corporate/Corporate-Responsibility/document/skills-gap-in-chinese-labor-market-exec-summary.pdf>

³⁹ Jing, S. (July 2017). Skills shortage to hit Chinese companies. *China Daily*. http://www.chinadaily.com.cn/business/2017-03/07/content_28455833.htm

⁴⁰ Jing, M. (December 2018). China mutes volume on Thousand Talents Plan as US spy concerns rise but scientists still covet funding. *South China Morning Post*. <https://www.scmp.com/tech/science-research/article/2176897/china-mutes-volume-thousand-talents-plan-us-spy-concerns-rise>

⁴¹ Holzmann, A. and Zenglein, Max J. (2019). “Evolving Made In China 2025.” *MERICs Papers on China*. https://www.merics.org/sites/default/files/2019-07/MPOC_8_MadeinChina_2025_final_3.pdf

⁴² Blanchard, B., Martina, M., & Liangping, G. (June 2019). China warns students, academics of risks of studying in U.S. *Reuters*. <https://www.reuters.com/article/us-usa-trade-china-education/china-warns-students-academics-of-risks-of-studying-in-u-s-idUSKCN140RT>

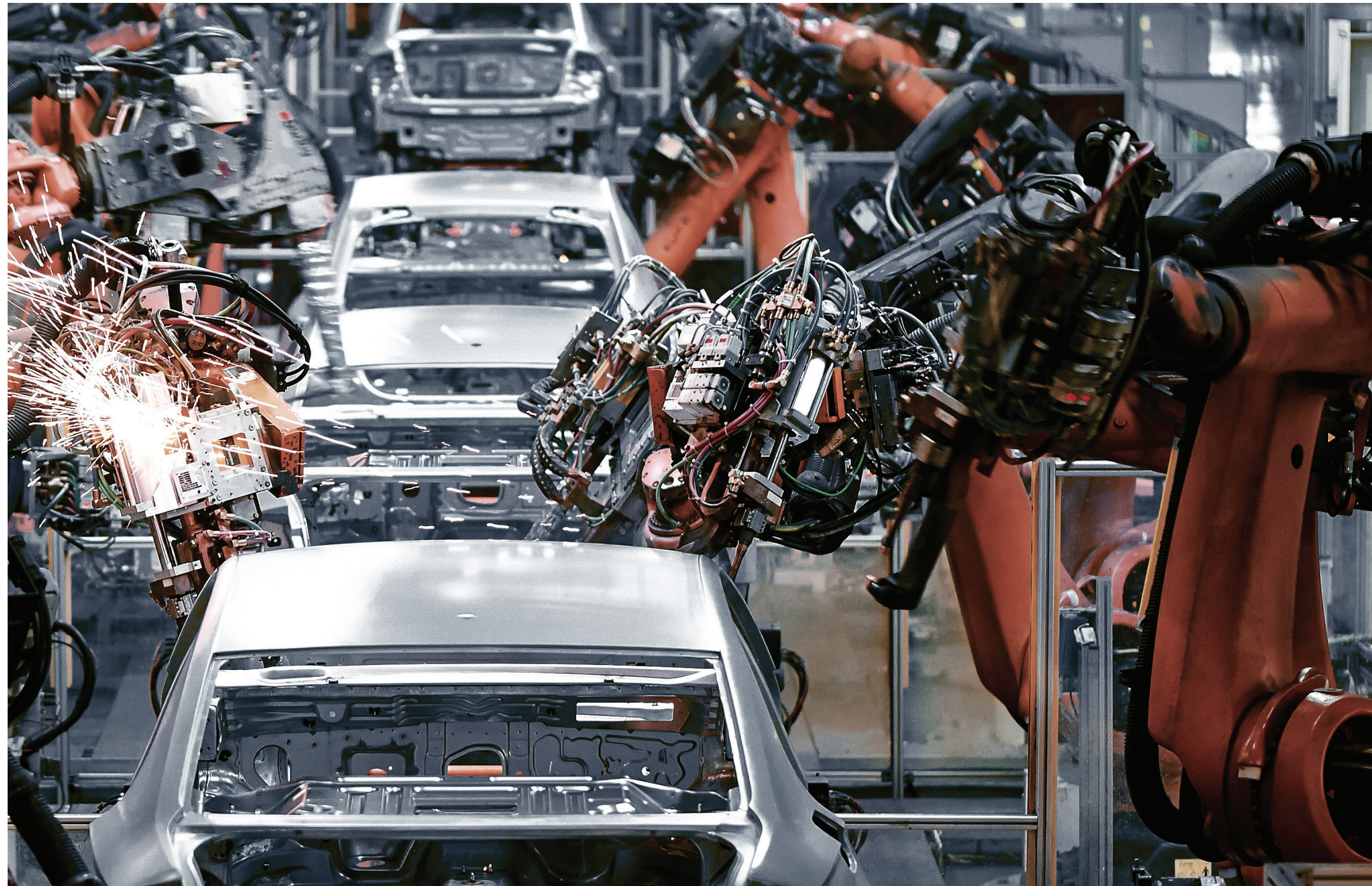
becomes, the more people become nervous, the more people worry that they will feel under the gun by virtue simply of their ethnicity, the more China will gain the benefit. The idea that you send a highly talented individual home rather than give them an opportunity for a green card seems misplaced. Unless current policies change, the United States will have missed a big opportunity to capitalize on the appeal and strength of its business schools as a magnet and retention tool for advanced talent.”

The rapidly rising demand for management and other business qualifications within China has prompted the development of more local business school offerings, some through international partnerships. As these options have become more competitive—with clear frontrunners in quality emerging—there is increasing evidence that Chinese students are finding a Chinese business education more applicable than an education in the Western world—specifically if a job in the United States is no longer a viable option.

According to GMAC’s Application Trends Survey Report 2019, Chinese business schools saw a 6.8 percent increase in domestic applications this year, and domestic volumes were up year-on-year at 73 percent of programs.⁴³

While nearly 9 in 10 applicants to these programs currently come from within the region (86%), the rising profile of China’s business schools could begin to attract a more global pool of candidates. China is now home to six of the *Financial Times*’ Global Top 50 MBA programs, including the fifth-ranked overall school, China-Europe International Business School (CEIBS). In 2009, just 2 of the top 100 were in China.⁴⁴

Although tuition and the cost of living are comparatively lower in China than in Western countries, one drawback is the relative lack of courses in English. As the United States cuts back on funding for language studies, this could be an obstacle for China in attracting talent from the United States and other Western economies.



⁴³ Graduate Management Admission Council. (2019). *Application trends survey report 2019*. <http://www.gmac.com/apptrends2019>

⁴⁴ *The Financial Times*. Global MBA rankings 2019. Retrieved September 1, 2019 from <https://rankings.ft.com/businessschoolrankings/global-mba-ranking-2019>

The Way Forward

No asset or resource is more vital to growth in a knowledge economy than talent. And yet, policies in place around the world today evidence a mixed approach to attracting and retaining it. As this paper highlights, business school applications are a powerful metric—and forecast—of the success of individual economies in prioritizing talent. A survey of these latest metrics shows change in our midst—and for certain economies, warning signs for the future.

The time for reflection and action is now. Government and business leaders alike should consider the policies in places—and policies that could be enacted—to magnetize and retain talent. One place to begin, specifically for the United States, is with the attraction of business school students. Aspiring students who want to cross national borders to attend business school are a critical economic resource; over the course of their careers, these graduates will guide companies through complicated but lucrative foreign markets, provide overseas contacts for their classmates, provide top-tier talent for global companies, and stitch together the global economy.

But to stop here is not enough. Careful consideration needs to be given to the availability and ease of obtaining visas, as well as to the atmosphere and environment cultivated within individual economies. As a wave of nationalism penetrates and persists—from India to America—economies that succeed in remaining welcoming to the international flow of talent will be best positioned to compete and succeed.

As a start, what follows is a series of recommendations for actions that would better facilitate the cross-border movement of talent in a knowledge economy.

Global Policy Prescriptions

- **Promote the Value of Global Talent Flows:** From Beijing to Brasilia, from Manchester to Mumbai, exclusionary sentiment is on the rise. Yet in a globalized economy, advocating for the national interest also means creating pathways for skilled foreign labor to work in their countries. Exclusionary rhetoric, unfortunately, will shut off those pathways. It will convince students interested in pursuing education overseas and future job seekers that they are not wanted. In the short and long term, that approach harms the national interest.
- **Institute “Whole of Government” Approaches:** Though the government rhetoric backing the “internationalization” of business school classrooms—particularly in China and India—is encouraging, the follow-through from related government entities is not. Studying in a foreign country, after all, is about more than just the business school you attend. Matters such as the availability of study visas, registering as a foreign national, applying for local internships, and even finding housing are critical, and government guidance is often nowhere to be found. If governments want to internationalize their business schools, they need to get all elements of government involved and be prepared to be helpful.
- **“Hive Off” the Skilled-Labor Debate from Larger Immigration Debates:** Debates over immigration—and globalization writ large—proved decisive in the most recent elections for head of state in three of the world’s four largest democracies (namely India, the United States, and Brazil). Cornerstone western democracies like the United Kingdom and Germany have also seen debates over immigration take over domestic politics. Whether or not immigration is a net-positive for these democracies—and who the “winners” and “losers” of increased immigration are—stirs political and cultural passions. Compromise, let alone agreement, is not imminent.

There can be virtually no argument, however, over whether high-skilled labor is a net job creator and economic engine. It is. In the United States, for instance, there are millions of unfilled STEM jobs, making it difficult to argue that a foreign worker in these fields

would replace an American one.⁴⁵ As 44 of the 87 private companies valued at more than \$1 billion had at least one immigrant founder, it is similarly tough to argue that high-skilled immigrants do not create far more jobs than they take up.⁴⁶

The economic case for increased high-skilled immigration is airtight⁴⁷ and subject to much less argument than is large-scale immigration. Nations from the United States to the United Kingdom to India will have far more success in creating a coherent high-skilled immigration system—and receive a corresponding economic boon—if they treat the conversation about high-skilled immigration as a wholly separate matter than mass immigration.

- **Synchronize Immigration Systems to Create Efficiencies Without Ceding National Sovereignty:** Every nation’s immigration system is different, the results of which are lost efficiency, wasted dollars and wasted time. The leaders of the immigration ministries of the nations that either send or receive the most immigrants should come together to synchronize visa systems and lessen the bureaucratic burden. Europe’s Schengen Area can serve as a useful model for approach and efficiency.⁴⁸ Nations do not need to turn over fundamental decisions on who is eligible to enter. Rather, making sure immigration systems are “speaking to each other” would mean standardizing procedures, lessening the bureaucratic burden on both high-skilled talent likely to traverse international borders on a regular basis and on nations themselves.
- **Cultivate Domestic Talent – But Understand Global Talent’s Role in Training:** Economically valuable talent must come from somewhere, and no economy will be able to “import” all of the high-skill talent it needs. Nations around the world need to cultivate younger generations

with in-demand skills. Doing that, however, does not mean cutting off the international supply of high-skilled workers. Rather, it means encouraging high-skilled workers to cross borders—and then teach in their new countries.

Foreign-born faculty are critical to growing the next generation of workers in STEM fields. About 50 percent of computer science faculty and 49 percent of engineering faculty in American universities are foreign-born.⁴⁹ This is not an exclusively American trend, either. Thirty percent of academic staff at UK universities are foreign-born.⁵⁰ The Indian Institutes of Technology, to their credit, have recognized the need to recruit more skilled foreign professors to meet the demand.⁵¹

Training domestic talent is critical, but that cannot happen without more skilled, foreign educators.

- **Relax Rules for How Long Students Can Stay After Graduation:** In China, foreign students must leave within six months of graduation, and a number of other countries impose similar restrictions. Such short timeframes do not give recent graduates adequate time to line up employment and receive supplemental visas. In the best of circumstances, these delays force recent graduates to return to their home countries and waste valuable, productive time waiting for new visas to come through—potentially missing out on job opportunities. In the worst-case scenario, the bureaucratic burden in getting a job after graduation can convince prospective students that studying overseas is simply “not worth it,” which is a major missed opportunity for the student, the host nation and the global economy.

⁴⁵ The Smithsonian Science Education Center. (n.d.). *The STEM imperative*. Retrieved from <https://ssec.si.edu/stem-imperative>

⁴⁶ Mobarak, A.M. (March 2017). Does immigration create jobs? *Yale Insights*. Retrieved September 1, 2019 from: <https://insights.som.yale.edu/insights/does-immigration-create-jobs>

⁴⁷ Peri, G. (February 2012). The effect of immigration on productivity: Evidence from U.S. states. *The Review of Economics and Statistics*. Retrieved September 1, 2019 from: http://giovanniperi.ucdavis.edu/uploads/5/6/8/2/56826033/peri_effect_of_immigration_on_productivity_2011.pdf

⁴⁸ Schengen Visa Info. (n.d.). *Schengen area – The world’s largest visa free zone*. Retrieved September 1, 2019 from: <https://www.schengenvisa.info.com/schengen-visa-countries-list/>

⁴⁹ The National Science Foundation. (2016). *S&E indicators*. Retrieved from <https://www.nsf.gov/statistics/2016/nsb20161/#/report/chapter-5/doctoral-scientists-and-engineers-in-academia/trends-in-academic-employment-of-s-e-doctorate-holders>

⁵⁰ University of Bath. (December 2018). The contribution of international academics to UK must be recognised, says business school. *Eureka Alert!* https://www.eurekaalert.org/pub_releases/2018-12/uob-tco121118.php

⁵¹ Duttgupta, I. (November 2018). Indian universities try to woo foreign academicians, what’s pushing them away. *The Economic Times*. <https://economictimes.indiatimes.com/industry/services/education/indian-universities-try-to-woo-foreign-academicians-whats-pushing-them-away/articleshows/66492015.cms?from=mdr>

US Policy Prescriptions

- **Increase the Cap on H-1B Visas – and Exempt In-Demand Fields from Counting Toward the Cap Altogether:** Under current regulations, 65,000 foreign nationals are able to work in the United States under the H-1B visa, with another 20,000 eligible through the advanced degree exemption.⁵² Given that demand for talent in the “specialty” occupations covered by H-1B visas vastly outstrips supply, people working under H-1B visas have a disproportionately positive impact on the US economy.⁵³ Yet the United States artificially caps the number of people it allows in under the H-1B visa program and assigns visas based on a random lottery. This leads to an annual tradition where US Citizenship and Immigration Services (USCIS) receives three times as many petitions for visas as it has available slots within a matter of a few business days.

As the United States does not have a large enough domestic supply of talent—particularly in STEM fields—to meet the demand,⁵⁴ it is tough to make a credible case that H-1B visa holders are taking jobs from American citizens. Additionally, recent research out of the Wharton School of Business of the University of Pennsylvania has found that more restrictive H-1B visa policies result in an increase in offshoring, particularly for innovation-driven firms with heavy R&D. The research finds that “Foreign affiliate employment increased as a direct response to increasingly stringent restrictions on H-1B visas. This effect is driven on the extensive and intensive side; firms were more likely to open new foreign affiliates abroad in response, and employment increased at existing foreign affiliates.”

Further, the countries who are most likely to benefit as a result are China, India and Canada—China and India because of the ready availability of high-skilled labor, and Canada because of its easier-to-navigate high-skilled immigration policies.⁵⁵

Accordingly, the United States must dramatically reform the H-1B process. Specifically, it should recognize that the country has industries with critical labor shortages where US citizens are highly unlikely to fill in the shortage in the near future. Visa applicants applying for visas to work in those fields should not count toward the overall H-1B cap. That way, the US high-skill immigration system would be better aligned with the needs of the US economy.

The US Congress would have final say over which industries would not count towards the H-1B cap. A good place for Congress to start its deliberations, however, would be the Bureau of Labor Statistics regular report on job openings by industry.⁵⁶ This exemption system would be in addition to raising the H-1B visa cap. Given the success of the program—and the number of highly qualified applicants unable to work in the United States given the current cap—there is a major economic boon to be had by simply getting out of the way and letting these people grow the US economy.

- **Institute a “Heartland Visa:”** As the Economic Innovation Group argues, the inflow of skilled workers to the United States has had a strong economic benefit for large cities and centers of innovation, but has done little for rural areas and cities that are losing population.⁵⁷ Worse yet, population decline in cities tends to follow a downward spiral. When people leave a city, they take both talent and potential customers away from local businesses. Those local businesses are forced to downsize, leading to job losses and worse economic standing, which in turn encourages more people to leave.

These cities need inflows of talented people to break the cycle. Accordingly, USCIS should create place-based visas allowing skilled foreign nationals to live and work in places with dwindling populations. These foreign

⁵² U.S. Citizenship and Immigration Services. (April 2019). *USCIS completes the H-1B cap random selection process for FY 2020 and reaches the advanced degree exemption cap*. Retrieved from: <https://www.uscis.gov/news/alerts/uscis-completes-h-1b-cap-random-selection-process-fy-2020-and-reaches-advanced-degree-exemption-cap>

⁵³ The American Immigration Council. (2019). *The H-1B visa program: A primer on the program and its impact on jobs, wages, and the economy*. <https://www.americanimmigrationcouncil.org/research/h1b-visa-program-fact-sheet>

⁵⁴ The Smithsonian Science Education Center. (n.d.). *The STEM imperative*. Retrieved September 1, 2019 <https://ssec.si.edu/stem-imperative>

⁵⁵ Anderson, S. (September 2019). Restrictions on H-1B visas found to push jobs out of the U.S. *Forbes*. <https://www.forbes.com/sites/stuartanderson/2019/10/02/restrictions-on-h-1b-visas-found-to-push-jobs-out-of-the-us/#4e6fde05a856>

⁵⁶ U.S. Bureau of Labor Statistics. (September 2019). Table 7. *Job openings levels and rates by industry and region, not seasonally adjusted*. Retrieved from: <https://www.bls.gov/news.release/jolts.t07.htm>

⁵⁷ Ozimek, A., Fikri, K., & Lettieri, J. (April 2019). From managing decline to building the future, could a heartland visa help struggling regions? *The Economic Innovation Group*. https://eig.org/wp-content/uploads/2019/04/Heartland-Visas-Report.pdf?mod=article_inline



nationals would provide talent, entrepreneurship, and add jobs and economic vitality to hard-hit regions, allowing them to get back on solid economic footing and halt economic decline. (Note: This idea originated with the Economic Innovation Group.)

- **Encourage Lawfulness with an Efficient System:** There are few acceptable excuses for not following the rules for one's visa or for not applying for one in the first place. Unfortunately, the slow, inefficient visa and immigration system incentivizes skirting the rules. In FY18, for instance, USCIS average application review time went up by nearly 20 percent, as the total number of applications went down.⁵⁸ Even relatively simple matters like H-1B renewals can take three months to process, while processing the initial application can take eight months or longer.⁵⁹ These delays can leave critical jobs unfilled and leave high-skilled workers without a source of income. It's hardly surprising, then, that some people choose to stay in the country without their visa fully in order.

Were USCIS to become more efficient, it would remove the incentive to “fudge” the rules, and allow law enforcement entities to focus on people who are truly a danger, rather than who just don't want to give up a dream job. As would any successful business, USCIS must incent the behavior it wants to see from the people who work there. It must provide rewards for operating efficiently and disincentives for slow-walking straightforward applications. Replacing or upgrading outdated systems could also help USCIS work through a backlog that, in extreme cases, is decades long.

- **Remove Per-Country Caps:** According to USCIS, no more than 7 percent of the total number of family-based and employment-based visas can come from any individual country.⁶⁰ These caps are an arbitrary and outdated standard—with an explicitly discriminatory

history⁶¹—that do damage to the US economy. There is no reason India, with a population of 1.3 billion, should have just 2,900 people a year receive EB-2 visas, while 28 EU countries with a combined 500 million people can receive 78,000.⁶² Given that the high-skilled workers who want to work in the United States tend to come from the same few countries, the per-country caps do not promote “diversity”—rather, they arbitrarily lower the number of skilled immigrants in the United States.

- **Codify the OPT-STEM Program and Expand It to Meet the Needs of the Modern Economy:** Under the OPT-STEM program, people with STEM degrees—which explicitly includes certain business programs—may stay in the country for three years after they receive their degree to receive on-the-job training. The program is vital for the US economy. Given the critical shortage⁶³ of people with STEM skills in the United States—as well as those with the ability to harness STEM technologies to create jobs—the OPT-STEM program has led to increased economic activity and has even kept some smaller companies from going out of business entirely.⁶⁴ Those are just the short-term, measurable impacts. Enabling OPT-STEM grads to further their understanding of US business practices and broaden their US-based networks provide US companies even stronger connections in foreign markets.

Despite its success, however, this program is perpetually on the brink of being curtailed. Congress should remove any ambiguity over the program's long-term availability so that students and companies alike can plan around it. Specifically, Congress should pass legislation enabling the OPT-STEM program. Further, the legislation should allow for both educational and economic rationales for granting visas. In the legislation, Congress should also allow more types of degrees to qualify and allow students on OPT-STEM visas to stay for four years, rather than the current three-year maximum.

⁵⁸ The American Immigration Lawyers Association. (2019). *AILA policy brief: USCIS processing delays have reached crisis levels under the Trump administration*. <https://www.aila.org/infonet/aila-policy-brief-uscis-processing-delays>

⁵⁹ Gonzalez, G. (September 2018). Why you can't expedite H-1B visas until 2019. *Inc*. <https://www.inc.com/guadalupe-gonzalez/uscis-h1b-visa-changes.html>

⁶⁰ U.S. Citizenship and Immigration Services. (n.d.). *Glossary*. Retrieved from: <https://www.uscis.gov/tools/glossary/country-limit>

⁶¹ Bier, D. (December 2018). Are the per-country limits necessary to promote “diversity”? *The Cato Institute*. <https://www.cato.org/blog/are-country-limits-necessary-promote-diversity>

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Analysis and Review

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