Barriers to recruiting and retaining global talent in the U.S.
**FWD.us** is a bipartisan organization started by key leaders in the tech and business community to promote policies to keep the United States competitive in a global economy, starting with commonsense immigration reform and criminal justice reform. To learn more, go to www.fwd.us.

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The United States is the innovation capital of the world, with a talented workforce that is second to none. But unless we fix our broken immigration system, our workforce—and our economy—will fall behind. That’s why I have long been a champion of bipartisan immigration reform, including efforts to maximize the contributions of high-skilled workers. To maintain our global economic competitiveness, we must continue to attract the best and brightest in the world. This report is a blueprint for achieving that goal.

It is a false choice to say that policymakers must choose between promoting high-skilled immigration or protecting American workers. We can do both. We can cultivate the most dynamic, talented, and educated workforce in the world while increasing economic opportunity for all Americans. In fact, we must do both. We must continue to attract overseas talent to sustain the very innovation that has made our nation the most prosperous in the world.

I was encouraged to hear the President make this point at a recent meeting of the American Workforce Policy Advisory Board: “We want a lot of people coming in. And we need it. ...[W]e want to have the companies grow. And the only way they’re going to grow is if we give them the workers.”1 Now is the time for the Administration’s actions to match the President’s words.

The Immigration Innovation Act (I-Squared) that I co-sponsored with other senators—and which I introduced in the 113th, 114th, and 115th Congresses—embodies the balanced approach that should be the backbone of a new, high-skilled immigration system for our nation. I-Squared established market-based H-1B caps and created a new, conditional green card program for a more direct path to permanent residency that does not require holding H-1B status first. This bipartisan legislation also took significant steps to protect American workers and prevent abuses of the H-1B program. Moreover, it eliminated the discriminatory per country limits and paved the way in preparing Americans for digital jobs.

As April 1—the date that employers must file visa petitions to hire foreign professionals—comes and goes, we are faced again with the limitations of the “H-1B lottery.” And we are reminded of the need to reimagine our immigration system to meet the demands of a 21st-century economy. Last year, employers filed 190,098 petitions—of which 95,855 were filed on behalf of foreign-born professionals who had earned a graduate degree from a U.S. university—but only 85,000 of these petitions could be approved. In other words, thousands of talented professionals who employers have selected for hire and who are poised to make contributions to our economy are being turned away, including the very people who already know our language and understand our culture and who have conducted research here as graduate students. When we fail to make space for these talented individuals, our global competitors welcome them with open arms. Now is the time to consider how to rebuild our high-skilled immigration system.

The Orrin G. Hatch Foundation is pleased to join with FWD.us to publish this report. Let this be the catalyst to a much-needed conversation—and the beginning of continued efforts to grow a 21st-century economy that creates jobs and fosters innovation.

Sincerely,

Orrin G. Hatch

Immigration remains a uniquely American competitive advantage

An immigration system that benefits all Americans must reflect our nation’s unique character as a place that welcomes newcomers seeking to offer their skills, experience, and industriousness. Indeed, immigration has long been one of America’s greatest competitive advantages, and the United States has been uniquely able to nurture that risk-taking spirit. It may be that the United States has an edge (including over countries like Canada and Australia) because our country combines a welcoming spirit with an open marketplace that is distinctly American.

In the long arc of our nation’s history, America has welcomed newcomers whose primary contribution is an ethic of hard work—and should continue to do so. As we do, we should also prioritize attracting the most-qualified professionals and highly-skilled college graduates (particularly those trained in the United States) who have the potential to contribute to existing businesses or grow the economy by starting new ones. America’s ability to attract, educate, and employ the world’s greatest talent has created a workforce pipeline that has fueled our economy, and must continue to replenish that pipeline with fresh ideas and skill-sets from around the globe.

Economists have understood for decades that high-skilled professionals working in the sciences and engineering are fundamental to driving innovation, technological adoption, and productivity. For this reason, the National Science Foundation (NSF) was created by Congress nearly 70 years ago to monitor, report on, and support the science and engineering workforce, long before the term “STEM” became a household term. The NSF confirms “[t]his workforce is of particular interest to the nation because of its central role in fostering innovation, economic competitiveness, and national security.”

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- NATIONAL SCIENCE FOUNDATION, “REVISITING THE STEM WORKFORCE: A COMPANION TO SCIENCE AND ENGINEERING INDICATORS 2014”

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2 Some scholars have opined that it might be the specific environment America offers that cultivates energetic risk takers who leave their home country. See, Peter Whybrow’s book, American Mania (W.W. Norton, 2005) where Whybrow, an expert on human behavior at UCLA, discusses how most people don’t leave their homelands, even when times are hard, and that there could be a genetic marker for restless curiosity and competitive self-promotion for those that do leave.

3 As former Senator Jeff Flake (R-AZ) has opined, “working hard is a skill” and “there must always be a place in America for those whose only initial credentials are a strong back and an eagerness to use it.” “We Need Immigrants With Skills, But Working Hard Is a Skill,” New York Times, August 2, 2017, https://www.nytimes.com/2017/08/18/opinion/jeff-flake-we-need-immigrants-with-skills-but-working-hard-is-a-skill.html?_r=0.

The United States has the world’s leading STEM economy, and to maintain it, must continue to attract top STEM talent. The NSF reports that the United States performs more science and engineering research and development (R&D) than any other nation, accounting for about 26% of the global total. According to NSF, the United States expends $497 billion of the estimated $1.918 trillion in global science and engineering R&D. Meanwhile, businesses, government, higher education, and nonprofits in the United States spend more than double in R&D expenditures than any other country. The United States is the global frontrunner in offering the greatest and fastest returns on its own human-capital investment, as well as the recognized leader in providing the most talent clusters of professionals and the most dynamic work environments.

Immigrants have been and remain a key element of that human capital. As renowned tech investor Paul Graham observes, the United States is home to less than 5% of the world’s population, meaning 95% of the best talent is born abroad. Successful businesses—including eight of the ten largest global companies that call the United States home—attract some of the most educated and skilled workers in the world to fill critical, specialized roles in their ranks. Through their contributions, these foreign-born workers actually raise wages for native-born workers and increase productivity for local communities.

Immigrants also play an outsized role in driving the entrepreneurship that fuels our economy. In fact, “Immigrants have started more than half (44 of 87) of America’s startup companies valued at $1 billion dollars or more and are key members of management or product development teams in over 70% (62 of 87) of these companies.” The jaw-dropping success of these businesses, and many others, has changed the way the world thinks about innovation, business, and the limits of growth. And that economic success is owed, in part, to immigrants who have chosen to join this effort.

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- STUART ANDERSON, NATIONAL FEDERATION FOR AMERICAN POLICY, “IMMIGRANTS AND BILLION DOLLAR STARTUPS”

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BARRIERS TO RECRUITING AND RETAINING GLOBAL TALENT IN THE U.S.
High-skilled immigration is vital to sustaining economic growth

Today, the U.S. is reaping the rewards of a welcoming immigration system with an economy that is stronger than it’s ever been. GDP is at record highs, as are revenues and market caps. Unemployment has fallen below 4%\(^1\), an incredible feat after reaching 10% as recently as 2009. And for individuals with college or professional degrees, unemployment is as low as 2.1%.\(^2\) But strong economic indicators show us what has been achieved—not how much more could be accomplished. The focus now should be on improving our global talent pipeline to sustain this economic growth.

The current immigration process was set in place long before the innovation and growth driving our economy today began. The numerical limits and qualifying characteristics for both green card (“immigrant”) and temporary worker (“nonimmigrant”) admissions to the United States were largely established by the Immigration Act of 1990,\(^3\) and the legal immigration system has not been significantly updated since then. Yet, in the intervening 25 years, the country’s economy has expanded dramatically. The size of the U.S. economy, as measured by GDP, has increased by about 98% since 1990, rising from $9.365 trillion to $18.571 trillion in 2018.\(^4\) Over the same period, GDP per capita increased by more than 67%, rising from $37,435 to $62,610.\(^5\) The number of businesses in the United States increased by at least 28% from 1990 to 2016, the most recent year for which data are available.\(^6\)

Meanwhile, there are more than 7.5 million unfilled jobs in the United States.\(^7\) The record low unemployment rates mean finding talent is difficult. A recent study by the Society for Human Resources Management found that 83% of employers were having difficulty filling open positions, with 75% of those employers saying candidates did not have the necessary skills, like data science and STEM training.\(^8\) Filling unfilled jobs like these is precisely the role immigration should play, but this is proving increasingly difficult as employers use a 20th-century immigration system to meet the needs of a 21st-century economy.


\(^{4}\) U.S. Department of Commerce, Bureau of Economic Analysis, “Table 1.1.6 Real Gross Domestic Product, Chained Dollars (inflation adjusted 2012 dollars),” www.bea.gov/iTable/index_nipa.cfm.

\(^{5}\) U.S. Department of Commerce, Bureau of Economic Analysis, “Table 7.1 Selected Per Capita Product and Income Series in Current and Chained Dollars (inflation adjusted 2012 dollars),” www.bea.gov/iTable/index_nipa.cfm.


We are starting to see the effects, as these outdated and restrictive immigration policies are actually deterring certain individuals from coming to the United States, and pushing those who are already here to leave. In the last several years, interest in studying in the United States among international students has waned. The number of student visas issued in FY18 in the United States was down nearly 7% from the previous year.\textsuperscript{19} Meanwhile, international student enrollment in Canada grew 20% from 2016-2017\textsuperscript{20} and 15% in Australia,\textsuperscript{21} with European countries like France and Germany growing in the single-digits.\textsuperscript{22} High-skilled workers who have been living and working here for years—and in whom American businesses have invested vast sums of money and resources in training and compensation—are increasingly packing up and moving to countries with more generous immigration policies,\textsuperscript{23} particularly countries that offer fast-track startup visa programs.\textsuperscript{24} Just as concerning, employers themselves are looking to move business outside the United States as they struggle to recruit. In one survey, 38% of American employers reported that they are considering expansion into Canada, with 21% saying they already have one office there.\textsuperscript{25}

\textsuperscript{19} Migration Policy Institute, “International Students in the United States,” https://www.migrationpolicy.org/article/international-students-united-states.
\textsuperscript{24} For example, Canada’s start-up visa (https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/start-visa.html) or the Start-Up Chile program (https://techcrunch.com/2018/10/16/a-look-into-chiles-innovative-startup-government/).
Nowhere to go for the best and brightest

Since it was established in 1990, the H-1B visa classification has been a key tool for U.S. employers to hire skilled professionals for specialty occupations. Because the law has not been significantly updated since then, however, the United States has come to rely on the temporary H-1B work visa as its main—and sometimes only—high-skilled immigration policy tool. In turn, the low availability of these visas makes it difficult for skilled workers to immigrate at the levels that businesses need, while those who are granted H-1B work visas are trapped in temporary status for too long, effectively living here permanently without the benefits of a green card.

Under current law, the H-1B classification is the sole means to authorize all of the following:

- start-ups by international students completing graduate degrees in the United States.
- professional employment at universities, non-profits, and research institutions
- foreign-born professors and researchers
- self-employment for foreign-born individuals who have U.S. business activities requiring their professional services
- international STEM graduate students at U.S. institutions remaining in the country to pursue full-time employment
- consultants coming to the U.S. to provide services for U.S. businesses
- any professional filling a job that requires the knowledge usually obtained only through completion of a university degree
- a bridge for those professionals who at the time of hire are being selected to fill a full-time job based indefinitely in the United States

Simply put, the H-1B visa program is vastly overextended.

This over-reliance on the H-1B visa program creates choke points in our talent pipeline where skilled individuals either cannot move forward or simply choose to leave. The most obvious choke point is the H-1B cap, which is a fixed number established by Congress over 25 years ago and which has no connection to the needs of the market in 2019. Since 1997, the full H-1B visa cap has been exhausted every year prior to the end of the fiscal year—except for three years when Congress temporarily tripled the cap. The cap has been reached in under a week every year since 2013. High-skilled foreign professionals who have been offered jobs by American employers face very limited odds of even having the visa petitions that have been prepared on their behalf opened. Simply put, there is a profoundly higher demand for these skilled workers than the current law is able to supply, handicapping American businesses.
The overburdened immigration system is making it difficult for U.S. employers to compete in increasingly global markets. Heavy equipment manufacturing provides a good example of this problem. In the 1980s, leading American manufacturers of heavy equipment had little or no Chinese competition. Today, they face intense competition from dozens of Chinese manufacturers producing equipment specifically for Asian markets. While U.S. manufacturers pursue nearly all of their research and development (R&D) efforts in the United States, most heavy equipment sales globally now take place outside the United States. American employers could benefit significantly from research and technical staff with experience in those regions and relevant language skills. Under current law, however, our employers are left without access to these skilled foreign workers.

Employers face similar difficulties recruiting and retaining foreign students graduating from American colleges and universities. The United States is home to the world’s leading educational institutions, enrolling more international students each year than any other country. To benefit from the investments made in the training and education of these foreign students, our immigration policies should provide them with clear avenues to stay in the United States if they are offered employment or want to start a business here. These students contribute significantly to our local economies while studying in the U.S., and are already accustomed to American culture, language, and society. In other words, they are prime candidates for our workforce.

26 For national and state-level data on the contributions of international students, see NAFSA’s “International Student Economic Value Tool” at http://www.nafsa.org/Policy_and_Advocacy/Policy_Resources/Policy_Trends_and_Data/NAFSA_International_Student_Economic_Value_Tool.
But when international students receive job offers from American companies, their only option is to seek indefinite employment through an H-1B visa. Employers cannot avoid the H-1B system by sponsoring for employment-based green cards because queues are so backlogged\(^\text{27}\) that the prospective employees would lose their student status before their application was even read. Thus, many of these students complete their degrees in the United States and then return to their home countries—taking their American education and any potential economic contributions with them.

Regardless of education and background, high-skilled individuals who want to immigrate permanently to the U.S. to work, even in specialized roles, often have no option but to apply for temporary H-1B status first. Historic backlogs have rendered most of the permanent immigration system effectively useless for employers. In fact, trying to sponsor an employee for a green card today often takes years, sometimes longer than a decade, before the employee can be cleared to work in the United States. To hire these skilled workers, employers have no choice but to sponsor them for temporary work permits so that they can bring them into the country and then petition for their green card, keeping them on the H-1B status in the meantime, restricting their ability to change

\(^{27}\) Since 1990, green cards for those classified as “employment-based” immigration have been capped at 140,000 annually. Investors as well as a jumble of “special immigrants” not elsewhere classified are also considered in the “employment-based preferences” even though they are not being selected based on their skills or education. Moreover, the 140,000 limit also includes all spouses and children of each worker, investor, or special immigrant. Included. That cap is further divided amongst “preference categories.” All told, employment-based immigrants account for about 12% of annual green cards. However, the 1990 law established that only 7% of those green cards can go to individuals from any one country. As more people from populous countries like India and China - over 80% of all H-1Bs are awarded to natives of these countries - apply for green cards, the lines for those countries get longer and longer. Today, the government is processing applications for Indians who applied in 2009, a ten year wait. But those who apply today are going to face a much longer wait. The backlogs also make it nearly impossible for employers to hire new workers through these pathways, as they would have to wait until their hires reach their place in line, decades from now.
jobs, earn a promotion, travel back home, or start a company. Today, many of those who have been stuck for years are considering other options—according to one survey, 70% of H-1B holders waiting for green cards said they were considering emigrating to a different country in the next year, with 30% saying they have started the process already.\textsuperscript{28}

Restricting or reducing the ability of U.S. employers to hire foreign-born professionals certainly does not create or leave available more jobs for native-born U.S. workers. The University of Chicago in 2017 asked its panel of economists about the following premise: “If the U.S. significantly lowers the number of H-1B visas now, employment for American workers will rise materially over the next four years.” None of the economists agreed with this premise, and the overwhelming majority—64%—disagreed.\textsuperscript{29}

**Policy principles to recruit and retain global talent**

While the United States has the opportunity to remain the top destination for the best and brightest, our current immigration infrastructure must be able to retain these talented individuals or capitalize on their contributions. If we do not, the bounty of talent that Americans have taken for granted may soon be up for grabs. As lawmakers come together to re-start the conversation on high-skilled immigration reform, they should ground the debate in two core principles: ensuring that America can attract the talent our businesses need today and in the future, and maximizing immigrants’ contributions while they are here.

In updating the U.S. immigration system, “increasing the number of highly-skilled workers will ensure the world’s best, brightest, and greatest risk takers compete for America, not against it.”\textsuperscript{30} Despite this directive, however, a 2015 survey of developed countries concluded that the United States ranked second to last—only ahead of Japan, a country traditionally closed to immigrants—in terms of welcoming skilled immigrants and entrepreneurs.\textsuperscript{31} The study also found that as of 2015, many other countries, including Germany, Australia, Canada, and Singapore, have few limitations on high-skilled immigrant worker visas and have clear avenues to legal permanent residency for these high-skilled workers.\textsuperscript{32}

In contrast, other countries are streamlining their processes to attract quality talent and admit them quickly and easily. The Canadian immigration system provides timely processing through a government-run enterprise that operates on electronic filing, which successfully selects nearly the same number of skilled immigrants as


\textsuperscript{29} University of Chicago, Booth School of Business, “IGM Economic Experts Panel,” (February 14, 2017), http://www.igmchicago.org/surveys/high-skilled-immigrant-visas.


\textsuperscript{32} Id.
the United States, despite having a population only one-tenth the size of our own. A skilled worker with a job offer from a Canadian employer can obtain permanent residency in six months and can complete almost all paperwork online. In 2017, the Canadian government issued invitations at a rate of more than 7,000 a month.\textsuperscript{33}

The United States already has some of the greatest talent on earth; the challenge now is keeping them here. That will require developing new immigration programs for foreign-born startup founders, graduates of U.S. universities, and high-skilled workers and their families. Congress also needs to raise the H-1B cap—which has been far too low for decades—and tie it to market demand to meet the needs of our modern economy.

Admittedly, it is difficult to design a large-scale program for temporary workers to fill jobs for indefinite periods. That's why when a U.S. employer creates and fills a position with a foreign-born professional, there should be an alternative to an H-1B visa. For example, Congress could clear out the backlogs and expand the U.S. employment-based green card as an option so people can move through the process in a timely and reliable fashion. Bottom line: Policymakers must determine how to ensure the U.S. is bringing in the right workers for all industries that need them, working the jobs of today and tomorrow.

\textbf{POLICY PRINCIPLES TO RECRUIT AND RETAIN GLOBAL TALENT :}

- Increase opportunities for high skilled workers to contribute to the U.S. economy.
- Tie H-1B visa caps to employer demand to ensure American employers are not arbitrarily restricted access to the global talent pool
- Increase the number of employment-based visas and provide realistic alternatives to H-1B for employers who want to sponsor skilled immigrants for permanent residency
- Keep American trained talent in the U.S. by allowing for an expedited path to citizenship for international student graduates and entrepreneurs that want to work and create jobs in the U.S.
- Prioritize predictability and timeliness for employers and employees
- Strengthen protections for foreign-born and American workers, and penalize bad actors

\textsuperscript{33} Analysis of data from Government of Canada, “2018 Annual Report to Parliament on Immigration, Table 4: New Permanent Residents Admitted in 2017,” https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/annual-report-parliament-immigration-2018/new-permanent-residents-admitted.html. For comparison, Canada admitted 164,000 new permanent residents (skilled workers and entrepreneurs, as well as their families) for economic-based immigration in 2017; in the United States, with ten times the population than Canada, each year about 120,000 workers and their families are selected for lawful permanent residency based on their skills and education. See Table 7, DHS Yearbook of Immigration Statistics (available at https://www.dhs.gov/immigration-statistics/yearbook/2017/table7). In order to calculate the number of principals (workers and not spouses or children), the data for spouses and dependents has to be subtracted from the totals for each the First, Second, and Third Preference totals. For example, all First Preference immigrants are identified as “Priority Workers” although in FY17 (the last year for which full data is available) there were 16,943 workers and 24,117 spouses and children counted as “Priority Workers.”
Further, elected representatives need to pass a host of more targeted reforms to ensure that the processes and procedures are manageable and predictable for employers and employees. For employers to continue to create and retain jobs in our country, they need a reliable global talent pipeline. Revisions to the immigration system must ensure that workers can adjust to permanent residency in a reasonable time frame, and are able to change jobs and advance their careers in the meantime. They must also ensure that minor children won’t lose the ability to remain with their parents by aging out of immigration status because of backlogs. Employers must be required to pay fair wages and recruit appropriately. The reforms must also include continued investment in digitization, moving the immigration process online, and updating legacy systems for the 21st century. Finally, Congress needs to continue to ensure the immigration system helps protect American workers by preventing bad actors from abusing the system, and penalizing them when they do without inflicting collateral damage on honest employers.

For the Orrin G. Hatch Foundation and FWD.us, we see the challenge before us as an opportunity to begin an important conversation. Over the next year, we will work to convene policy experts, academics, industry leaders, elected officials, and other stakeholders to find solutions to the challenges outlined here. We hope these conversations will help establish a blueprint for a high-skilled immigration system that can keep America home to the world’s greatest talent—both now and in the future.