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CHAPTER

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Aligning High-Skilled Immigration Policy with National Strategy

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ABSTRACT

The United States' innovation edge rests on its ability to draw on the best talent from around the world. Yet, the laws that govern high-skilled immigration have barely moved since 1990 for permanent residency and since 2000 for temporary work visas, leaving them misaligned with the size and needs of today's economy. Employers register for more than three times as many H-1Bs as are available each year, which are then awarded at random rather than on the basis of merit. For permanent residency, just 140,000 employment-based green cards are issued annually, most of which go to spouses and children rather than to workers themselves. The resulting backlogs now exceed one million, leaving many workers stuck in less productive jobs and discouraging future talent from coming to the US altogether. This paper charts the alphabet soup of high-skilled immigration pathways—F-1/OPT, J-1, H-1B, O-1A, EB-1, EB-2, and EB-3—demonstrating how inflexible and outdated rules have undermined the scale, selectivity, and retention of global talent. It proposes reforms to make immigration a renewed national strength: expanding green cards, piloting a points-based system for permanent residency, and launching a government talent-scouting arm. Together, these steps would realign US immigration policy with national ambition and restore its role in fueling American innovation and economic leadership.

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Introduction

America's current immigration system for high-skilled talent was codified in the analog era before the internet, updated during the dot-com boom, and has remained untouched since. Today, it acts less as a nimble conduit for top minds than a maze that deters and immobilizes them.

The talent who have managed to navigate the immigration labyrinth have accomplished great things. Immigrants founded 55 percent of our billion-dollar startups and 60 percent of America's top AI startups. Immigrants have produced 28 percent of our high-quality patents and won 38 percent of our Nobel Prizes in science. But static quotas and restrictive rules translate into growing waits and uncertainty, threatening to sabotage this source of strength.

Given the outsized role of superstar immigrant talent in developing new technologies, where that talent ends up has ramifications of macroeconomic and geopolitical proportions.

Consider: mRNA vaccine technology was developed in the United States because biochemistry pioneer Katalin Karikó was allowed to come to the country in 1985, before the institution of rules in 1990 and 1998 that would have made it much less likely for her to have been able to successfully immigrate. In the years since, 5G was developed in China because Huawei was able to commercialize the research of Erdal Arikan, the Turkish scientist whose breakthroughs on polar codes provided the basis for the technology. Arikan was an international student who studied in the United States, graduating from the California Institute of Technology and the Massachusetts Institute of Technology. He wanted to stay in the United States and only returned to Turkey when he could not secure a green card. Had he faced the immigration system that Karikó faced, he would be a proud American citizen today. Immigration policy thereby seeded a vaccine revolution. Today's immigration policy exported 5G to Shenzhen.

The great threat is that a sclerotic and static system can no longer achieve national goals. The danger is not necessarily an abrupt collapse (although some policy moves under consideration do risk an abrupt collapse, such as the proposal (and stated wish of the U.S. Citizenship and Immigration Services' nominee director) to discontinue work authorizations for international students graduating from US universities) but a steady disintegration, one by which the country that once served as the almost automatic destination for global scientific ambition becomes one option among several, and eventually, as the most bureaucratically capricious, less preferred.

Permanent residence is rationed severely yet promised liberally, the system abrogating the hard decision of allocating scarce slots by merit, market need, or any

other factor that would offer predictability and prevent the growth of interminable queues. Only about sixty thousand green cards are issued every year on the basis of workers' skills and jobs. But the pool of approved petitions for those slots now stands at over a million and is growing without end in sight, leaving skilled immigrants and their employers, not to mention their spouses and children, waiting interminably in professional and legal limbo. Further per-country caps applied with unthinking impartiality alike to India and Iceland, China and Fiji, mean that Chinese and Indian immigrants bear the disproportionate burden of the system's failures. Many Indian engineers enter a line knowing they will die before ever reaching the front, with the vague faith that lawmakers can't allow a system so perverse to persist.

With green cards a distant and elusive hope, high-skilled immigrants sweat over acquiring a long succession of temporary statuses to stay in line. The most common route begins with a student visa limited to one or three years of postgraduation work, in which they will get a few chances at the lottery for an H-1B visa, whose odds have dipped below one in three. The lucky ones will renew their H-1B once, securing them an additional three years; and, after that, if they can get their employer to sponsor a green card, they will then routinely apply every year for an extension until they finally reach the front of the green card line. The result is a professionally immobilized cohort, blocked from risk-taking in the very years where they could be making their largest contributions to American innovation. Universities, exempt from the H-1B cap (and thus able to sponsor work visas without needing to go through the lottery system), assume the role of default sanctuary, where the reliable promise of a visa deters immigrants from joining the private sector, transferring from research to commercialization, or following the science where it takes them. Even in the private sector, visa restrictions impose real costs on anyone trying to switch jobs, let alone found companies.

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There is a grave mismatch between the scale of America's national ambitions for technological leadership and the way it governs high-skilled immigration, its single most reliable comparative advantage. The US has just 4 percent of the world's population, a quarter of that of China, its greatest adversary. But America's superpower is that it can augment its own citizens with the best and brightest from anywhere, who have historically been attracted to the United States by its scientific institutions, quality of life, and freedom. Unless Congress confronts that mismatch, the status quo is on track to forfeit the advantage.

The prognosis, though stark, is not irrevocable. Caps can be raised; lotteries and first-come, first-served systems can be replaced with merit-based selection; and processing can be modernized and made efficient, predictable, and even welcoming.

The remainder of the paper is structured as follows: Section 2 describes the rules that govern high-skilled immigration to the United States today. Section 3 covers the domestic threats posed by complacency over the status quo: flagging recruitment and retention rates, concerning trends in the changing composition and activities of new immigrant cohorts, and heightened foreign competition for talent. Section 4 describes potential policy changes to the US immigration system that would increase high-skilled immigration and make the immigration system the national strength it could be. These proposed changes include using more green cards to better retain talent, adopting merit-based criteria to better select from the available pool of talent, and piloting new pathways for talent who are likely to make major contributions but who are currently being lost.

1. How does high-skilled immigration work today in the United States?

For a republic that touts itself as the world's talent magnet, the United States admits remarkably little talent on purpose. Immigration based on skills and employment represents a small fraction of the US immigration system. Immigrants to the United States are more likely to be low-skilled than natives are (Bennett 2020). In this respect, the United States is an outlier among OECD countries, which on average admit a much higher share of their permanent residents on the basis of employment: 20 percent in the US, including skilled immigrants' accompanying family members, compared to the OECD average of more than 45 percent.

The law governing the US immigration system passed in the 1960s, and the most recent major statutory changes took place in the 1990s. The Immigration Act of 1990 established many of the major immigration categories, as well as establishing immigration quotas. The American Competitiveness in the 21st Century Act of 2000 updated rules around the H-1B program and set the final caps on that program (temporarily increasing the caps and then reducing them for 2003 to today's level)—caps that we still use today. In short, high-skilled immigration is governed by laws and quotas decades old.

1.1 High-skilled immigration is capped by green-card limits.

High-skilled immigration is not a central priority of America's immigration system. The United States issues about a million green cards—the term for lawful permanent resident status—per year, affording immigrants the right to stay permanently in the United States and work if they choose to. Of those, only about 7 percent are awarded

to people on the basis of their skills or job offers. The rest of the green cards go to other categories.

The largest "major class" of immigrants are immediate relatives of US citizens, defined as the citizens' spouses and minor children, for whom there is no limit on the number of green cards that may be issued each year. There is also no numerical limit on the number of green cards that go to asylees, although the population receiving status by asylum each year tends to be small. Most other major immigration categories are capped. Refugee resettlement is subject to a numerical limit set by the president each year. Congress imposes a numerical limit of approximately 50,000 on green cards to winners of the Diversity Visa lottery, a program intended to make immigration available to countries that do not have high rates of immigration to the United States. The largest capped category, however, is "family preference," which allocates about 226,000[1] green cards each year to the immediate families of green card holders (who don't have access to the uncapped pool of green cards available to citizens) and to some more distant relatives, specifically adult children, parents, and siblings (along with those siblings' own spouses and minor children).

By contrast, only approximately 140,000[2] green cards are issued each year under employment-based categories. Because spouses of minor children of the so-called principal beneficiaries count toward the cap, most of the 140,000 green cards do not go to the selected high-skilled workers themselves, although it must be noted that the spouses often are high-skilled as well, and their children, too, often tend to enter the workforce in high-skilled occupations.

Furthermore, of the five employment-based categories, only three categories select people on the basis of their skills or employment; the other two are for special religious workers and investors.

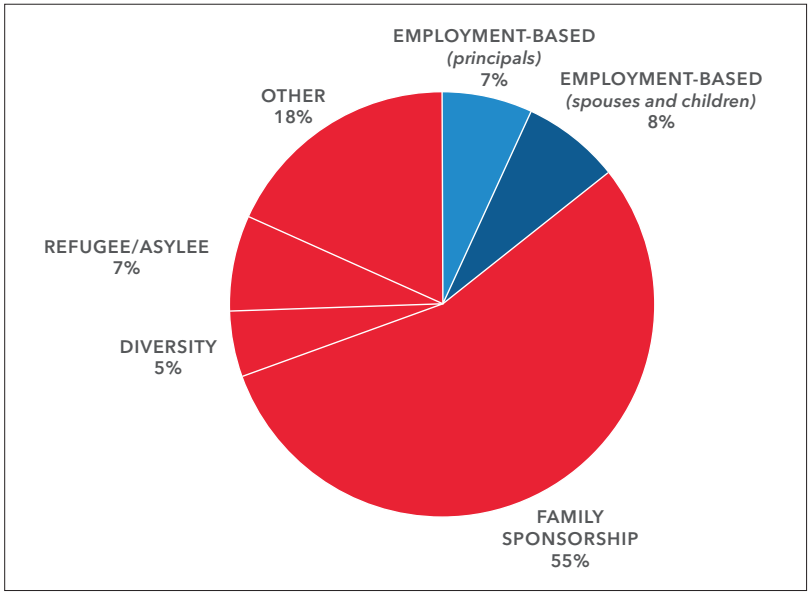
The three skill-based categories are:

- EB-1s, which comprise:
  - EB-1As for extraordinary ability
  - EB-1Bs for outstanding professors
  - EB-1Cs for certain multinational managers and executives
- EB-2, for professionals with advanced degrees and those with exceptional ability
- EB-3, for skilled workers, professionals, and unskilled workers

1 Congress sets the limitation on family-preference green cards by a formula that technically allows fluctuations between 226,000 and 480,000 based on factors like the number of immediate-relative green cards. However, because of the rate of immediate-relative immigration, the family preference cap has long been consistently set at 226,000 each year.

2 The numerical limit on employment-based green cards is also set by a formula that reallocates numbers from unused family-preference green cards the previous year to the employment-based categories, which allows for some fluctuation from year to year. During COVID-19, when many numbers went unused, this practice led to a temporary increase in employment-based numbers. The formula does not take into account market conditions, demand, or any other factors other than allowing for some zero-sum reallocation across categories.

Figure 1: Persons obtaining green cards in FY2023, by type



Source: Department of Homeland Security 2024

The US awards approximately 40,000 green cards every year in each of these three categories. Of those 120,000 green cards, fewer than half go to principals, with the rest going to principals' spouses and minor children. This means that only about 7 percent of the total green cards issued each year are awarded on the basis of skills and employment.

US Citizenship and Immigration Services (USCIS) receives and approves far more eligible petitions for green cards from high-skilled immigrants each year than the number of green cards Congress has authorized. The result? Queues with long and increasing wait times. However, there is not one queue or even one queue for each green card category.

In addition to the numerical limit on each category, a per-country cap further limits the number of green cards that may be issued to nationals of any given country in a year. Thus, immigrants face different wait times depending on what country they are from. Indians face the longest expected wait times, stretching to over 100 years for EB-2s, meaning that approved petitions are unlikely to ever result in a green card. Chinese face the next longest waits. I will discuss the growing backlogs and the evolution of wait times more in section 3.

The overwhelming majority of employment-based green cards go to people already lawfully present in the United States on another status, usually a temporary work visa like an H-1B. In 2023, 75% of employment-based green cards were "adjustments of status" granted to individuals already here, rather than going to new arrivals to the United States (Department of Homeland Security 2024). Permanent residency affords recipients greater flexibility in changing jobs and starting new enterprises, but it should not be thought of as a means by which the United States gets new high-skilled immigrants who would otherwise not be in the country.

In other words, employment-based green cards are the primary mechanism by which high-skilled immigrants can stay in the United States, but they are not a major recruitment tool for new talent.

1.2 High-skilled recruitment starts with temporary visas.

Employment-based green cards function primarily for retention of high-skilled talent, not for recruitment. By contrast, US recruitment of high-skilled workers relies on temporary programs that are known as "nonimmigrant" programs because they do not afford the privileges of lawful permanent resident status.

The particular terms and eligibility for nonimmigrant status vary widely across nonimmigrant categories, but they do not afford the privileges of lawful permanent resident status, meaning that immigrants cannot use such status to permanently stay in the United States or to securely afford their spouses and children status in the United States. For example, if a nonimmigrant moves to the US with a minor child but a green card is not available by the time the child is 21, the child will lose their legal status in the United States. Nonimmigrant status also tends to impose restrictions on the kinds of employment and activities the nonimmigrant can take relative to permanent residency. Furthermore, nonimmigrant status is usually limited in duration. All these restrictions mean that while most high-skilled immigrants start their immigration journeys on nonimmigrant visas, green cards remain necessary for retaining talent.

Table 1 below summarizes the main nonimmigrant visa pathways for high-skilled talent.

International education is the primary recruitment pathway for global talent into the United States. The F-1 visa offers visiting students the opportunity to study at US institutions of higher education. Upon graduation, about half of students choose to participate in optional practical training (OPT), which allows graduates one year of work authorization (or three years for STEM graduates) for on-the-job training. OPT allows recent graduates the opportunity to enter the US labor force and acts as a bridge to other visas.

The J-1 exchange visitor program offers status to about 300,000 new visitors each year, one-third of whom are in high-skilled J-1 categories, including scholars, professors, and researchers. Research is one of the largest J-1 categories because nearly all US-based postdocs hold J-1 status. Historically, J-1 researchers have been hosted primarily at universities, and the program has not been used much by companies who would be eligible by their R&D activity. A minority of J-1 participants are subject to a requirement obligating them to return home for two years before getting another visa.

Table 1: The US's high-skilled recruitment pathways

Category	Number	Caps	Who is it for?	Duration
F-1 (and OPT)	~300,000 per year	Uncapped	Students	For the duration of the student's course of study, including optional practical training (OPT).
J-1	~100,000 per year in high-skilled categories	Uncapped	Exchange program participants including scholars, professors, and researchers. Most postdocs are on J-1s.	Up to five years, depending on the particular J-1 program
H-1B	~120,000 per year	Cap of 85,000 for the private sector	Workers in specialty occupations requiring a bachelor's degree or higher.	Three years, renewable once without an approved green card petition. After six years of status, an H-1B can be renewed in one-year increments if the beneficiary has an approved green card petition.
O-1A	~10,000 per year	Uncapped	Individuals demonstrating extraordinary ability in the sciences, education, business, or athletics.	Three years, renewable in one-year increments.

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The flagship high-skilled visa in the United States is the H-1B. Most H-1Bs are filed by employers on behalf of students and others already in the United States.[3] Put differently, the H-1B is at least as much for retention as recruitment. The H-1B is valid for an initial period of three years that can be renewed once. After that, an H-1B can be renewed indefinitely in one-year increments if the beneficiary is waiting in line for a green card with an approved petition. While approximately 120,000 H-1Bs are issued annually in total, the program is capped at 85,000 for the private sector, with 20,000 of those visas reserved for those with a master's degree or higher from a US institution. The program is uncapped for institutions of higher education, government research institutions, and nonprofit research institutions.

3 After students, the next most common transition to H-1Bs comes from L-1 holders (intracompany transfers), who switch to H-1Bs to get eligibility for indefinite renewals while they wait for a green card to become available.

Each year, employers register for far more than the number of cap-subject visas that are available—in the spring of 2025 employers registered for over 358,000 H-1Bs. The 85,000 are awarded by lottery.

Finally, about 10,000 O-1A visas are issued yearly. The O-1A is for individuals with demonstrated records of extraordinary ability in their fields. The visa lasts for three years and may be renewed indefinitely in one-year increments. There is no cap on the number of O-1As that can be issued.

Ultimately, the talent pipeline is a large funnel, accepting far more recruits at the top than there are available green cards at the bottom. At the top of the funnel, student and exchange visitor programs recruit the overwhelming majority of new talent, with a small share of new talent going directly into H-1B or O-1A, and an even smaller share (bordering on trivial) going directly into EB categories. Transitioning to an H-1B or an O-1A presents the first choke point, with many new graduates who want to stay unable to secure a visa in time. The green card caps impose the final bottleneck.

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Thus, the country that won the space race and built the atom bomb by importing brains now asks them to draw lots for the right to wait.

2. The growing costs of complacency

Growing wait times, as shown in table 2, pose a mounting toll on innovation, economic growth, and security. Accumulating backlogs and existing rules are deterring an increasing share of talent from coming in the first place and are also leading to falling retention of the people whom we do manage to recruit. Top researchers, engineers, and entrepreneurs increasingly avoid the US altogether, especially those from China and India. Further, top talent is increasingly crowded out by lower-skilled individuals. Exacerbating the situation is increased competition from other countries that have seen US complacency as an opportunity to streamline their own systems and recruit talent that the US is increasingly forfeiting.

2.1 Recruitment and retention are flagging

The US remains a major destination for talent, but recruitment and retention both face headwinds. The OECD benchmarks countries' ability to attract and retain talent with the Indicators of Talent Attractiveness Index. Concerningly, the OECD

benchmarks show US attractiveness in decline between 2019 and 2023 while being leapfrogged by countries like the UK and Norway. As we will see, other countries are capitalizing on falling US attractiveness.

The two most important metrics for measuring the effectiveness of our high-skilled talent pipeline are the recruitment and retention rates, both of which show troubling signs (Neufeld and Kaushik 2024).

Table 2: Estimated and projected employment-based green card wait times, in years, by nationality, 2020 and 2030

	2020	2030
EB-1		
India	8	18
China	5	15
Rest of world	1	1
EB-2		
India	195	436
China	18	51
Rest of world	0	1
EB-3		
India	27	48
China	5	17
Philippines	2	2
Rest of world	0	5

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Source: Kandel 2020

Stagnating recruitment is not surprising when we consider the fact that caps for H-1Bs have not been changed since 2003 and the cap for employment-based green cards has not been modified since 1990. What growth has occurred must be attributable therefore to smaller, uncapped high-skilled immigration categories that allow for work authorization—like cap-exempt H-1Bs, O-1As, J-1s, and F-1 OPT—and increased high-skilled immigration through pathways not intended to facilitate high-skilled immigration.

Retention poses an even more troubling picture.

As we've seen, international education is the country's primary recruitment pathway, but we fail to retain most of the students we train. Only about 37 percent of international students who graduate from US schools stay in the United States long-term. Retention is especially low for those with lower degrees. Table 3 displays the share of international students who graduated between 2012 and 2021 still residing in the US as of 2023. Fewer than one in five international bachelor's-degree graduates stay. Meanwhile, retention of doctoral graduates is much higher, with stay rates for PhDs of up to 80 percent.[4] Extending the period of OPT for STEM graduates from one year to three years has increased the retention of graduates, but the gains have been eroded as competition for H-1Bs has subsequently increased (Olszewski et al. 2024).

Table 3. Long-term US retention of international student graduates

Degree level	Stay rate
Bachelor's	18%
Master's	43%
Doctoral	80%
Total	**37%**

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Note: "Stay rate" is defined as the share of international students who graduated between 2012 and 2021 still residing in the US as of 2023.

Source: O'Brien 2025

4 This estimate is likely optimistic, given other evidence that the stay rate falls over longer time horizons. Finn and Pennington (2018) found that the stay rate for PhDs in science and engineering fields falls from 72–77 percent for a five-year time horizon to 67–71 percent over a ten-year time horizon. A study by the Center for Security and Emerging Technology (Corrigan, Dunham, and Zwetsloot 2022) found science and engineering PhD stay rates of 77 percent.

From 2018 to 2023, only 61,145 students requested changes of status each year, despite approximately 250,000 students graduating each year (USCIS n.d.). According to an analysis of National Survey of College Graduates and IPED data by the Economic Innovation Group, from 2012 to 2020 "American universities trained more than 1.1 million students who later left the country" (O'Brien 2024). That number is growing. Some of this growth is simply caused by enrollment trends. If enrollment increases and stay rates remain constant, we'd expect the number of graduates who are leaving to increase. Instead, enrollment is stagnating while retention is falling (Neufeld and Kaushik 2024).

Retention has been in a long decline. According to data from the Student and Exchange Visitor Information System (SEVIS), the system that Immigration and Customs Enforcement (ICE) uses to track status of F-1s and J-1s, the share of F-1 students requesting another status (H-1B, O-1A, J-1, or another nonimmigrant visa) peaked in 2007 at 22 percent and has since fallen by more than a third (Neufeld and Kaushik 2024).[5] The decline is largely driven by falling retention of graduates at the bachelor's and master's levels. Because universities are exempt from H-1B caps, PhD retention has remained relatively stable, although as we'll see, these dynamics have led to PhDs increasingly becoming locked in academia at the same time as R&D has shifted to the private sector (National Center for Science and Engineering Statistics 2025).

The empirical literature shows that the growing green card backlog is a significant drag on retention. Khosla (2018) uses data from the Survey of Earned Doctorates and the Survey of Doctoral Recipients to track doctoral recipients after graduation, finding that each year of additional wait time for a green card decreases the retention rate of a new PhD by over 5 percentage points. The importance of delays to retention is echoed by Kahn and MacGarvie (2020), who find that the deterrent effect varies by country (at least in part because of differences in rates of marriage with citizens and the attractiveness of countries of origin).

These results suggest that growing backlogs will exacerbate retention problems. The Congressional Research Service projects that from 2020 to 2030, projected EB-2 waits will grow by centuries for Indians and decades for Chinese. EB-3s are also expected to grow significantly. Perhaps most concerningly—because the category is for the highest-skilled talent—wait times for Indian and Chinese EB-1s are both projected to grow by ten years (Kandel 2020). While we might expect the effect on retention to reach some asymptote as waits get ever longer, all evidence suggests that the growing backlogs will increasingly drag down retention numbers.

5 Students who return home temporarily may stay without requesting a change of status, but this data is the best currently available on the transition rate from F-1 to another status.

2.2 The immigration system is getting less selective.

In countries with merit-based immigration systems, a tradeoff exists between scarcity and quality. If a country selects only the best would-be migrants, then it can't expand immigration without sacrificing standards.

However, the US immigration system prioritizes neither scale nor selectivity, imposing tight numerical caps without effective selection mechanisms, undermining both the quantity and quality of talent admitted. H-1Bs are allocated by random selection. Employment-based green cards are offered on a first-come, first-served basis. Both admission categories have caps set well below the number of people who are both eligible and want to immigrate. When demand for a fixed supply of visas keeps rising, the formal eligibility rules stay the same, but they cease to screen effectively: far more people now meet the thresholds than can be admitted. In other words, the *de facto* selectivity of the system falls. So not only are the quotas forcing us to lose talent, but we are using the slots we do have less and less efficiently.

Take the H-1B. From 2018 to 2023, the wages promised to the lottery winners of new H-1Bs increased by 23 percent. However, the wages promised to the top 85,000 workers entering the lottery (i.e., enough to fill the cap) increased by 41 percent. By the same token, in 2018, relying on random chance brought workers paid 29 percent less on average than the average wage of the top workers we could have selected from the same pool with the same number of slots. By 2023, random chance brought us workers paid 38 percent less (Neufeld 2025b).

Put simply, the H-1B program has become much less selective over time.

This is not necessarily the immigration system anybody desired or intentionally designed. When Congress set H-1B quotas, for example, the program was not oversubscribed. When worldwide and per-country green card caps were set, there were no green card backlogs. But as demographic and economic conditions have changed, the rigid system has failed to sufficiently respond.

Some small changes to the order of two H-1B lotteries in 2020 have modestly improved allocation (20,000 H-1Bs are reserved for graduates of advanced degree programs at US schools, so ensuring that they can also be considered with the best chance during the lottery for everyone can have a mild positive effect on selection) but have not been sufficient to reverse the dominant trend of declining selectivity. As Pathak, Rees-Jones, and Sönmez (2025) show, the current order is optimal, meaning no more can be gained by further reforms along similar lines.

Still worse, the lottery has reduced the quality of the talent pool itself at many stages of the US talent pipeline.

First, starting with international education at the top of the funnel, Kato and Sparber (2013) demonstrate that H-1B visa restrictions have reduced the selectivity of the US higher-education system by discouraging high-ability international students from applying to US schools in the first place. Exploiting a natural experiment when the H-1B cap fell from 195,000 to 65,000 and comparing countries affected by the cap to those exempt via trade agreements allows Kato and Sparber to isolate the effect of visa policy on selectivity. Their findings are clear: The reduced odds of securing an H-1B after graduation discouraged the most academically qualified international students from applying, leading to a 10–20-point decline in the SAT scores of prospective international students. The drop was not evenly distributed across the ability spectrum but was driven by a decline in the number of high-scoring applicants, not by an influx of lower-scoring ones, indicating that the highest-ability students are more sensitive to visa restrictions (perhaps because they have better outside opportunities).

Second, the lottery has also eroded the quality of the H-1B applicant pool. The H-1B lottery system has significantly shifted incentives away from high-value matches and toward bulk applications by intermediaries. Because employers cannot reliably expect to secure H-1B status for the individuals they want to hire, many have rationally reduced their efforts to identify and sponsor the most uniquely qualified candidates through the program. Instead, the system rewards business models that treat visa petitions as lottery tickets for more-or-less replaceable workers whom they can contract out to third parties. This state of affairs has led to a rise in outsourcing firms that face lower costs in sourcing visa applicants and use their scale to secure a predictable number of lottery wins for more-or-less replaceable workers, often in IT.

Furthermore, Sharma and Sparber (2024) show how each registration submitted by one firm reduces the chances for others, prompting a competitive arms race of oversubscription. Bespoke, high-skill matches that fill a unique niche are the very kinds of matches that are hardest to scale when the incentives favor scrambling to find workers fit to fill generic roles with which to flood the system. Sharma and Sparber estimate that the dynamic imposes externalities costing over $1 billion a year in recent years.

Finally, at the bottom of the funnel, the same staffing companies that have specialized in flooding the H-1B program with relatively lower-skilled workers are crowding out workers in the EB-1 category, intended to be the highest-skilled category for green cards. The EB-1C category is available to executives and managers at multinationals, and EB-1s are increasingly being sponsored on behalf of managers at staffing companies like Infosys and Cognizant—workers who are not likely to be significantly contributing to high-growth innovative companies as the category was supposed

to facilitate. The EB-1C category has subsequently grown in importance within the EB-1 category, contributing to the fact that EB-1As for extraordinary ability and EB-1Bs for outstanding professors from India and China now face backlogs.

2.3 Visa restrictions squander the potential of the immigrants we do recruit.

Of the immigrants we do manage to recruit and retain, immigration rules all too frequently deter and bar them from contributing their full potential.

First, many restrictions are associated with changing jobs. While policy changes have reduced the major legal obstacles to changing jobs, there remain significant costs that make these transitions much costlier for immigrants than for natives. The new employer needs to file paperwork, go through a lengthy labor-certification process, and pay all the associated fees as if the worker were newly arrived in the country. Founding a new company poses even more challenges. H-1B holders are required to be "employees" who don't have sole decision-making authority. The O-1 is more flexible, but many company founders can only qualify for an O-1 *after* their startup is successful, creating a catch-22 that stops them from launching in the first place.

Second, the backlog means that immigrants spend relatively more years restricted in their ability to make career moves in service of innovation and entrepreneurship. This rigidity is especially costly as R&D activity increasingly takes place in the private sector, which operates under stricter visa constraints than academia or nonprofit research institutions. Because of academia's greater access to visas, researchers find themselves increasingly trapped in academic positions if they want to stay in the country. Amuedo-Dorantes and Furtado (2019) show that the introduction of binding H-1B visa caps in 2004 significantly increased the likelihood that international graduates work in academia, even outside their field of study. This evidence suggests a reallocation of talent driven by immigration constraints rather than career preferences—as the authors put it, top talent is forced to "settle for academia."

Finally, the scarcity of green cards has become a direct threat to national security. Green card backlogs have proven a major constraint on the Department of Defense's ability to harness the talents of foreign-born professionals already living and working in the United States. The DoD has long treated high-skilled talent as an asset, and over 100,000 immigrants work on DoD-funded projects today (Miles et al. 2024). However, because of the sensitive nature of much defense work, security clearances are often required and are generally restricted to US citizens. Hence, 85 percent of high-skilled immigrants currently working on DoD-funded projects are naturalized citizens (Miles et al. 2024).

However, growing green-card backlogs are significantly delaying naturalization, which in turn delays or outright prevents otherwise-eligible individuals from naturalizing and obtaining clearances. These are individuals who have already been approved for permanent residence and who in past decades when backlogs were shorter would have become citizens and been cleared long ago. As a result, a highly qualified Indian graduate who has lived and worked in the US for over a decade may be unable to obtain a clearance—not because of any security concern but because of an outdated quota system. Meanwhile, someone from a less backlogged country with less time in the US may be able to naturalize and access clearance-restricted roles much sooner. This arbitrary bottleneck prevents the DoD from tapping into a large, vetted pool of STEM talent already on US soil and ready to serve.

In sum, the immigration system is funneling skilled workers into roles where immigration requirements are easier to navigate, but which are not necessarily the best fit for those workers' expertise or for the country's priorities.

2.4 International competition for talent has heightened.

Global competition for talent has escalated dramatically, meaning that the United States is no longer the default destination for global talent as was the case historically. Not only is this shift bad for the United States, but it is bad for the world since moving to the United States makes immigrants more productive than they would be if they moved elsewhere—even to another economically advanced country. Agarwal et al. (2023) find that budding migrant mathematics researchers of the same ability are two to three times more productive in the US than they are in Canada.

Other countries, including Canada, Germany, Australia, and the United Kingdom, have seized upon America's immigration inertia, implementing proactive, streamlined immigration policies that increasingly attract global talent. In recent years, the UK has adopted two new visa programs for top talent: the Global Talent visa and the High Potential Individual visa. Even as the Labour government is proposing cuts to total immigration after a recent surge, they still plan on expanding their use of the new Global Talent and High Potential Individual programs (Home Office 2025). Canada, meanwhile, unveiled a Tech Talent Attraction Strategy that included self-described aggressive moves to poach ten thousand high-skilled immigrants stuck in the backlog in the United States. All the slots were requested within 48 hours.

Since 2015, international student enrollment in the United States has stagnated, while other OECD countries have stepped up their efforts to attract global talent. OECD data shows that the US share of international students among OECD destinations has been declining since 2016, as countries like Canada and Germany have expanded their foothold in the global education market at US expense. From

2013 to 2021, the United States increased its total international enrollment by just 8 percent. In contrast, Germany more than doubled its international student population over the same period—raising it by 109 percent, not including American students (Neufeld and Kaushik 2024). Surveys suggest that Canada has surpassed the United States as the top preferred destination for skilled workers (Kovács-Ondrejkovic et al. 2021).

China is also becoming serious about talent recruitment. As incomes improve and quality scientific institutions proliferate, the country has proven to be a contender. With programs such as the Thousand Talents Plan and its successor, Qiming, China actively recruits international and expatriate talent. Originally focused on getting people from China to return, in 2021 China's official strategic plans clearly articulated growing ambitions to expand its recruitment globally. President Xi announced to the CCP that the nation's goal is to prove competitive to the US in talent acquisition by 2035. Chinese leadership explicitly recognizes that reform in US immigration policies could threaten its strategic goals (Zwetsloot 2021).

3. Aligning policy with national goals

The preceding analysis paints a stark picture of a system at odds with national goals. But the immigration system, while ossified, can be changed. Concrete, politically feasible reforms can restore the United States's ability to attract, select, and retain the world's most promising minds. The US has done it before, achieving world-historical accomplishments like the Manhattan Project and the Apollo Program by bringing the world's best minds to the world's top research organizations. It can do it again.

Doing so will take more high-skilled immigration and better selection. Both are policy choices.

3.1 The United States needs more high-skilled immigration.

The central bottleneck in the current system is not a lack of interest or talent—it is an outdated cap. Only 140,000 employment-based green cards are issued each year, with most going not to workers themselves but to their spouses and children. These caps, set in 1990, are woefully misaligned with the size and needs of today's economy.

New green cards. Congress should authorize additional green cards for qualified foreign-born experts working in critical emerging-technology fields. One simple way to operationalize this authorization could be to simply exempt STEM PhDs from green-card caps, as well as individuals who have valid job offers with salaries paying more than some threshold, say $200,000. EB-1As for extraordinary ability could also

be made exempt. Entrepreneurs who have secured sufficient investment could also be given a unique category, as startup founders do not currently have any designated pathway to a US visa, whereas such pathways already exist in some other countries, which offer successful-startup visas.

A new pool of green cards could also be made available each year on a points-based allocation, awarding green cards to those with the most points, awarded for characteristics associated with success. Designing a points system raises many questions that I discuss more in the following section on improving selection.

The danger of stapling a green card to all diplomas. One proposal—to which I'm sympathetic but which ultimately falls short—is the oft-repeated idea of "stapling a green card to a diploma." The appeal is understandable: If retaining international students is a problem, then we should simply retain them. Stapling a green card to STEM PhDs is probably fine, given the costs associated with obtaining PhDs. However, automatically offering green cards with lower levels of education would likely introduce severe distortions. It would create powerful incentives for low-quality institutions, so-called degree mills, to expand or proliferate in order to cash in on demand from students motivated primarily by immigration, not education. Both the UK (in its Deliveroo visa scandal) and Canada faced this problem, seeing declining immigrant quality associated with similar policies. Criteria should instead be based on less gameable features like salary.

The drawbacks of eliminating per-country caps outright. Another proposal that overpromises is eliminating the per-country caps. This approach avoids the political problems associated with raising the worldwide cap, but it does so at an extreme cost. It improves things for the people currently treated the worst, but only by gumming up the rest of the system. For example, in Kandel (2020), the Congressional Research Service projects that eliminating per-country caps would grow the expected EB-2 backlog in 2030 for most countries from just one year to 37 years. Given that the deterrent effect for Indians and Chinese is likely attenuated at very long waits, such a strategy would do little to improve retention for Indians and Chinese, while significantly reducing recruitment and retention for all other immigrants. Without increasing the worldwide numerical cap, the per-country caps, however unfair, keep the worst of the backlog cancer from spreading through the rest of the employment-based system.

Scaling existing underleveraged pathways. There are also ways to better use the current system. The private sector can better use existing, underleveraged pathways. Universities and other institutions can recruit more today by scaling up their use of uncapped pathways like J1s and cap-exempt H1Bs. This approach to recruitment is

worth taking, but ultimately congressional action will be required to address the most important bottlenecks: the decades-old caps.

3.2 Merit-based policies should better select from the pool of available talent.

The United States must also allocate whatever slots it does have more intelligently. Today's system distributes green cards and H-1Bs with little regard to the quality or strategic value of applicants. H-1Bs are awarded by lottery. Employment-based green cards are distributed largely in the order petitions are filed, subject to arbitrary caps. This approach is neither meritocratic nor strategic.

End the H-1B lottery and award H-1Bs by compensation. Merit-based reform should begin by scrapping the H-1B lottery, which wastes valuable slots on lower-quality matches, favors outsourcing companies specializing in lower-paying roles, discourages employers from identifying and recruiting top talent, and encourages employers to waste efforts seeking far more workers than there are available slots. Replacing the H-1B lottery with a compensation-based allocation, without changing the number of slots, is estimated to increase the economic value of the program by 88 percent over ten years by raising the quality of the cohorts receiving visas (Neufeld 2025b). Adjusting the compensation by age to account for the expected lifetime contribution of beneficiaries would further improve the long-term economic and fiscal contribution.

Reprioritizing employment-based preference categories. In line with these reforms, the employment-based green card categories themselves should be restructured. The EB-2 National Interest Waiver category, which allows individuals to self-petition if their work benefits the United States broadly, should be moved to the EB-1 tier and prioritized accordingly. Meanwhile, EB-1C petitions, increasingly used for lower-paid multinational managers, should be constrained more narrowly to actual C-suite roles; other managers, where appropriate, could be reclassified under EB-2 or EB-3. This approach would preserve the EB-1 category's original intent: to serve the highest-talent individuals with exceptional ability and extraordinary contributions.

Adopt a points-based system for green cards. The US can also adopt a points-based system to rationalize its system for permanent residence. Many countries have justifiably popular points-based systems to guide their selection processes. These models assign applicants scores based on factors associated with success like education, SAT scores, salary, language proficiency, and job offers. Visas are then awarded to the applicants with the highest scores. Unlike the US system, such models create a transparent and flexible method for prioritizing applicants based on economic contribution and potential. The US could stand to learn from this model.

However, other countries' experiences provide a number of important lessons the US would do well to learn.

First, many points-based systems tend to over-index on education, which encourages degree mills that reduce the quality of the talent pool over time. It can also encourage immigrants to overinvest in education to increase their chances of securing a visa. Second, many points systems focus more on acute labor shortages than on maximizing innovative potential. Third, countries have found that existing job offers are important for labor market success. Both Canada and Australia's points systems did not originally include job offers but added them when immigrants showed poor labor-market integration.

In adopting a more merit-based approach, policymakers should also think carefully about how it interacts with the rest of the immigration pipeline. For example, diverting green cards from existing categories into a new points-based system can decrease total immigration if it replaces categories that have a high rate of new arrivals with a category that is predominantly used for retention. The RAISE Act, a prominent US proposal for merit-based immigration, also reduced total immigration by cutting categories altogether—such that the average skill level of immigrants increased, but the level of immigrants fell sufficiently that economic growth projections were significantly reduced. If well-planned, a shift toward a more merit-based allocation can improve the economic outlook. The Penn Wharton Budget Model found that shifting 10 percent of future low-skilled immigration toward high-skilled STEM workers would increase growth and reduce deficits by $152.6 billion over ten years (PWBM 2025).

Proactive talent recruitment by the US government. Finally, the United States can do much more to be proactive in identifying and recruiting talent. The current system of decentralized recruitment has allowed the United States to make use of the diffuse networks of its employers, universities, and other institutions, but relying almost exclusively on these organizations has let their interests dictate immigrant selection. Universities have little incentive to bring in the most promising individuals if those students can't afford to pay full tuition. By the same token, companies have little incentive to recruit individuals whose benefits come mostly in the form of spillovers. And while programs like the O-1 work well for those with a demonstrated track record of success, they are inadequate as a tool for individuals with high potential to make future contributions. With this gap, the US government can step in to

"Done right, merit-based immigration means selecting more wisely, offering immigrants more certainty, and giving the United States a significant edge."

proactively identify and recruit talent. Talent scouts at the State Department and Department of Defense could experiment with identifying and recruiting winners of math and science olympiads, winners of scientific prizes, budding entrepreneurs, and top young scientists.

At the end of World War II, the US ran Project Paperclip, in which the national security community identified the top foreign scientists who should be exfiltrated from Europe to work on defense-related projects in the United States. While we did not recruit as many scientists as the Soviets did, we won the Space Race in large part because we recruited better scientists and integrated them fully into the US scientific enterprise. With the return of great power competition, it is time to dust off this model of proactive recruitment and bring it back online (see Neufeld 2025a).

Done right, merit-based immigration means selecting more wisely, offering immigrants more certainty, and giving the United States a significant edge.

Conclusion

The United States remains the most preferred destination for top talent from across the globe. No other country has been as successful at turning ambition into achievement or outsiders into insiders. But that advantage, long assumed to be permanent, is now slipping through neglect.

"At every stage, the pipeline narrows for reasons that have little to do with merit. The result is a compounding loss: of talent who never come, discoveries that never get made, and innovations that never take place."

High-skilled immigration policy is shaped less by strategy than by complacency and habit. It reflects the period when it was written, when the internet was new, China was poor, and American dominance in science and technology was taken for granted. That world no longer exists. Yet the laws and quotas remain untouched.

What has emerged in its place is a system that calls for excellence but allocates opportunity by chance and recruits talent it refuses to retain. At every stage, the pipeline narrows for reasons that have little to do with merit. The result is a compounding loss: of talent who never come, discoveries that never get made, and innovations that never take place.

The United States still possesses the institutions and talent clusters to make it the most fertile ground for ambition. What it lacks is policy worthy of its potential.

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