

BOLSTERING STEM TALENT WITH THE NATIONAL INTEREST WAIVER

How a 2022 update streamlines the green card process

Updates to the National Interest Waiver process

For decades, it has not been clear how immigrant experts with advanced STEM degrees could qualify for a National Interest Waiver (NIW) in the permanent residency process. Guidance from U.S. Citizenship and Immigration Services (USCIS) published in January 2022 has helped to resolve this uncertainty.¹ For an eligible immigrant, the NIW can now serve as the most efficient way to secure petition approval, allowing a future application for green card status.

This article:

- Explains the new 2022 guidance concerning the NIW for immigrants holding advanced STEM degrees, including the policy imperative for the guidance,
- 2. Lays out an updated approach to NIW petitions that immigration lawyers have found successful
- 3. Assesses outcomes of the NIW guidance so far.

Key takeaways:

- New USCIS guidance in 2022 clarified how NIW petitions are adjudicated for advanced STEM talent in critical and emerging technology fields.
- National Interest Waivers can now afford qualified recipients an employmentbased green card that can be self-sponsored (avoids tying the immigrant to a specific employer), less expensive, more quickly prepared, and more quickly adjudicated than a traditional employment-based green card.
- The new guidance should inform how practitioners assemble petitions for qualifying talent.
- Early figures suggest the number of NIW petitions has more than doubled since the guidance, shifting the share of petitions filed for advanced STEM degree holders toward NIW.

Technology competition and the National Interest Waiver

The NIW has its origin in the Immigration Act of 1990. The Act created a new Employment-Based Second Preference (EB-2) for green cards and the EB-2 sub-category of advanced-degree professionals, or individuals with exceptional ability, who might be granted a waiver of the normal requirement of a job offer and a Labor Department-approved Application for Permanent Employment Certification (PERM) when "in the national interest."² As appropriate for departments and agencies implementing such legislation, legacy INS (Immigration and Naturalization Service, part of the Department of Justice) and, since 2003, USCIS (which is part of the Department of Homeland Security) have identified the contours of the NIW provision by promulgating notice and comment regulations.³

The 1990 Act was passed when the U.S. population was three-quarters of its current size, when the real GDP of the U.S. economy was half of what it is today, and before the "STEM" acronym became a standard reference at the National Science Foundation in the early 2000s. When the NIW concept was created, policymakers were not focused on clarifying the circumstances in which scientists, technologists, and engineers with advanced degrees were working in the national interest. The 2022 policy guidance resolves that blind spot by clarifying existing binding regulations and controlling precedent implementing the NIW statute. The new guidance creates increased consistency in adjudicating immigration petitions on behalf of international STEM experts who are now critical players in our economic and technology competition.

The 2022 Policy Manual update did not expand the scope of the NIW. Instead, it simply explained to agency adjudicators, STEM experts, and their employers how the NIW applies to advanced STEM degree holders in critical and emerging technology fields. These degree holders are among the risk-takers the United States has long welcomed as immigrants⁴ looking for the best and fastest returns on their own human capital investment.⁵ There is no workforce where these dynamics are more important than in the sciences and engineering. Since World War II, it has been clear that

- 1 The Policy Memo guidance was issued on January 21, 2022. The announcement is available at https://www.uscis.gov/newsroom/alerts/uscis-updates-guidance-on-nationalinterest-waivers. The new policy explanation is found in the Policy Manual, Vol. 6, Part F, Chapter 5, Subsection D, between the text starting around footnote 34 and ending after footnote 78 and especially the explanation on evidentiary considerations for advanced STEM degree holders found in the text near footnotes 64 to 75, available at https://www. uscis.gov/policy-manual/volume-6-part-f-chapter-5. USCIS also created a microsite explaining immigrant pathways for green cards based on STEM employment in the United States, available at https://www.uscis.gov/working-in-the-united-states/stem-employment-pathways/immigrant-pathways-for-stem-employment-in-the-united-states. The microsite features, among other things, the 2022 Policy Manual update.
- 2 Section 121(b) of Pub. L. No. 101-649, Nov. 29, 1990 (IMMACT90), amending the Immigration and Nationality Act.
- 3 56 Fed. Reg. 60,897 (Nov. 29, 1991) (codifying the current regulation at 8 C.F.R. § 204.5(k)(4)(ii)). The regulation provides little detail on what qualifies as an endeavor "in the national interest" (and was never updated after the passage of a technical corrections act (Pub. L. No. 102-232, Dec. 12, 1991) that made it explicit that NIW was available for either advanced degree holders or individuals who document exceptional ability). The current controlling precedent decision is Matter of Dhanasar, 26 I&N Dec. 884 (AAO Dec. 2016), which the 2022 Policy Manual update explains, providing the agency's interpretation of its binding precedent.
- 4 Some scholars have opined that the specific environment America offers uniquely nurtures energetic risk-takers who leave their home country. See Peter Whybrow, 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 restless curiosity and competitive self-promotion might drive those that do leave.
- 5 See, e.g., Migration Policy Institute, "The International Migration System" (July 13, 2017), PowerPoint slide deck and video available at https://www.migrationpolicy.org/multimedia/ international-migration-system-reflections-challenges-and-opportunities-ahead.

this workforce is fundamental to invention and technological adoption, and therefore critical to a nation's security as well as to growth in opportunity and productivity.⁶

The 2022 clarifying guidance may be viewed as an attempt to address this reality: American technological leadership relies on STEM experts making contributions to research and development (R&D) across government, academia, and industry. R&D benefits from collaboration across sectors and within clusters, where organizations can cross-pollinate one another by exchanging ideas, applications, and talent. The United States excels in this cross-pollination. On a per-capita basis, the United States still leads the world in the number of high-intensity science and technology clusters, those regions with high science and technology employment.⁷ Moreover, the U.S. STEM R&D ecosystem is constantly evolving — for instance, industry's contribution to STEM R&D has grown enormously, from 44% in 1953⁸ to over 73% in 2024.⁹ America's innovation ecosystem is healthiest when STEM experts have the flexibility to follow science wherever it takes them. For a foreign-born STEM expert, that flexibility can be afforded by an approved NIW EB-2 petition.

In some ways, the 2022 NIW clarifications in the USCIS Policy Manual reflect the national interests at play in the growing strategic competition between the United States and China. Many national security experts believe the United States can only win this competition by securing and maintaining a technological lead, and that this can only be done by effectively tapping into the global supply of STEM talent.¹⁰ China already produces twice as many STEM master's graduates as the United States, and will soon produce twice as many STEM PhD graduates. China has recently surpassed the United States in total science and technology activity according to the Global Innovation Index.¹¹ With a bigger population and more STEM experts, China could outcompete the U.S. STEM ecosystem.¹² The new guidance was intended to provide new transparency as to how USCIS officers adjudicate NIW requests related to U.S. science, technology, and engineering. As per Volume 6, Part F, Chapter 5, Part D, Section 2 of the Policy Manual — appropriately titled "Specific Evidentiary Considerations for Persons with Advanced Degrees in Science, Technology, Engineering, or Mathematics (STEM) Fields" — possession of an advanced degree related to a critical and emerging technology holds particular weight when reviewing each of the three prongs of an NIW analysis:¹³

Specifically, the Policy Manual update clarifies evidentiary considerations that inform whether an NIW is appropriate for certain advanced STEM degree holders whose degrees relate to a "critical and emerging technology field," as defined by the Executive Office of the President via either the National Science and Technology Council or the National Security Council.

The three prongs of an NIW analysis:

- Is the beneficiary engaged in an endeavor in the national interest?
- Is the beneficiary poised to make contributions to that endeavor?
- Would the United States thus benefit in the beneficiary's case even without the labor market test usually required for employment-based immigrants?

The list of "Critical and Emerging Technologies" periodically updated by the Executive Office of the President¹⁴ includes 18 fields of particular importance (and more than 100 subfields), as of February 2024:

- 6 Long before the "STEM" acronym was coined, Congress created the National Science Foundation in 1950 to monitor, report on, and financially support the science and engineering workforce because of the central role of this workforce in fostering innovation, economic competitiveness, and national security. See also Rational Middle Podcast, "How Foreign-Born STEM Workers are Making This Country Better" (Mar. 15, 2023).
- 7 Appendix Table 4, Global Innovation Index 2023 (World Intellectual Property Organization 2023). The U.S. has eight clusters in the top 25 of per capita employment, patenting, and publishing in science and technology (Silicon Valley, CA; Cambridge, MA; Ann Arbor, MI; San Diego, CA; Seattle, WA; Raleigh, NC; Minneapolis, MN; Pittsburgh, PA), China has one, and no country besides the United States has more than three.
- 8 See National Science Board, Science and Engineering Indicators 2022 at Figure RD-4 (historical R&D expenditure by source of funds).
- 9 See National Science Board, Science and Engineering Indicators 2024 at Figure 14 (R&D expenditure by source).
- 10 See, e.g., letter to congressional leaders about China competition and STEM talent from over 70 former national security officials from both Democratic and Republican administrations (May 15, 2023); Center for Strategic and International Studies, "Winning the Tech Talent Competition" (Oct. 2021), ("The most powerful – and perhaps only – lasting asymmetric American advantage is its ability to attract and retain international talent").
- 11 Global Innovation Index 2023 (World Intellectual Property Organization 2023).
- 12 See e.g., Center for Security and Emerging Technology, Chinese Talent Program Tracker (November 2020), China is Fast Outpacing U.S. STEM PhD Growth (Aug. 2021), Education in China and the United States (Sept. 2021), AI Definitions Affect Policymaking (June 2020); NSF Science & Engineering Indicators, 2018 and 2020; IMF and OECD historical and projected GDP and population data.
- 13 See supra, note 1.
- 14 See Fast Track Action Subcommittee on Critical and Emerging Technologies (of the National Science and Technology Council), "Critical and Emerging Technologies List Update," Feb. 2024.

Fields of Particular Interest

Advanced Computing	Advanced Engineering Materials
Advanced Gas Turbine Engine Technologies	Advanced and Networked Sensing and Signature Management
Advanced Manufacturing	Artificial Intelligence
Biotechnologies	Clean Energy Generation and Storage
Data Privacy, Data Security, and Cybersecurity Technologies	Directed Energy
Highly Automated, Autonomous, and Uncrewed Systems (UxS), and Robotics	Human-Machine Interfaces
Hypersonics	Integrated Communication and Networking Technologies
Positioning, Navigation, and Timing (PNT) Technologies	Quantum Information and Enabling Technologies
Semiconductors and Microelectronics	Space Technologies and Systems

Furthermore, USCIS expanded Premium Processing in January 2023 to include NIW petitions, allowing petitioners to secure a decision within 45 business days for an extra fee, versus 10-12 months under normal adjudication times.

With this new NIW Policy Manual update, many highly-educated and accomplished foreign nationals in STEM fields now recognize they have a relatively hassle-free option to secure their futures in the United States. USCIS data released in January 2024 show a more than two-fold increase in the use of NIW by employers that have typically sponsored EB-2 immigrants in STEM,¹⁵ suggesting that the NIW policy update has informed businesses if not educational institutions on green card strategies for highly valued employees. In fiscal year 2019, the last pre-pandemic year before DHS was developing the new guidance in 2021, there were 59,100 EB-2 petitions filed for beneficiaries in STEM, with 9,260 as NIW. In fiscal year 2023, the first full year after DHS announced the new guidance in January 2022, there were 53,960 EB-2 petition filings for beneficiaries in STEM, with 20,950 as NIW. As such, the proportion of STEM EB-2 NIW filings for STEM experts shifted from around 16% to 39% of the overall STEM EB-2 receipts.

NIWs have grown after new 2022 guidance



NIWs for STEM jobs have grown since 2022 guidance

NIWs received among EB-2 receipts in STEM occupations, by fiscal year



15 See STEM-Related Petition Trends: EB-2 and O-1A Categories, FY2018-FY2023 (USCIS, January 2024).

A new approach to NIW petitions

Prior to the January 2022 Policy Manual update, most experienced immigration lawyers perceived little distinction between a petition for NIW EB-2 and a petition for Employment-Based First Preference Extraordinary Ability (EB-1A). Even though the EB-1A category is meant to recognize individuals who have risen to the very top of their field - which has never been the standard for NIWs - practitioners most often inferred that USCIS adjudicators treated both petition categories interchangeably. As a result, most lawyers prepared both NIW and EB-1A filings with similar levels of supporting detail, using extensive evidence, lengthy letters of support from experts, and complex explanations about the foreign national's work and significant accomplishments to convey the prominence of the foreign national in their field. The new guidance now clarifies the distinctions between the two categories. A beneficiary does not need to have already risen to the very top of their field to qualify for an NIW. Instead, beneficiaries must be in a position to advance an endeavor of substantial merit and national importance.

The new guidance suggests a new approach to constructing NIW petitions. This article's co-authors in private practice — Jonathan Grode and Joshua Rolf — set out to test an updated approach to preparing and submitting NIW petitions for STEM masters and PhD graduates.

The attorneys prepared a test group of cases for candidates all holding STEM PhDs. Through filing a batch of cases with similar academic backgrounds, the co-authors hoped to understand whether a STEM PhD in a critical and emerging technology field would carry enough evidentiary weight with a brief description of the beneficiary's research area, contributions, and employment to result in a positive outcome in most cases. Ultimately, each of these test cases for STEM PhDs was approved promptly, within 60 days before premium processing and two weeks after premium processing, and without Requests for Evidence (RFE).

Although this first group of cases prioritized NIW candidates with PhDs, this approach has been applied in the last year to master's-level STEM experts working in areas vital to the national interest, especially areas where

engineers play a critical role and the terminal degree is at the master's level. Many individuals leading innovation and efforts to solve complex

problems in critical and emerging technologies are engineers, who, when pursuing graduate study, opt for an engineering master's degree instead of a graduate research degree that terminates with a doctorate, and then work in industry. Foreign nationals with impressive contributions who hold master's degrees have succeeded in satisfying the three-prong¹⁶ NIW analysis due to their education and area of expertise.

Taken together, these results point to the enormous promise of NIW petitions for immigrants as a self-sponsored¹⁷ employment-based green card that is relatively speedy, inexpensive, and efficient. Another advantage of this increased efficiency is that the petition may be prepared in a matter of days or weeks and then adjudicated within weeks, securing an earlier priority date. The resulting time saved is significant, considering that an NIW could be an alternative to counting on the H-1B lottery¹⁸ for a bridge status to permanent residency. Moreover, PERM can take longer than 18 months to be completed, can present challenges when major industries have layoffs,¹⁹ and features delays in securing a priority date. Given the enormous green card backlog, this significantly affects application wait times for individual immigrants and their families.

NIW petitions present opportunities for employers as well. In a competitive job market, employers are increasingly looking for ways to attract and retain top-level STEM talent. They may look to the NIW as an attractive route for workers seeking a long-term solution to their immigration situation in the United States. In a STEM job market where a significant percentage of job applicants and employees are STEM-educated immigrants, immigration benefits can make the difference in attracting and retaining sought-after talent. The efficiency of the NIW process and the relative ease with which it can be used by applicants in future positions in their field make it an attractive part of an employer's immigration program, especially if the employer builds a record of success for NIW workers who can reliably qualify for this benefit based on the merit, scope, and importance of their work with the employer, as well as the credentials that qualified them for the role in the first place.

¹⁶ See e.g., text supra leading to note 13.

¹⁷ Because the National Interest Waiver category is not tied to a specific job offer, individuals approved in this immigrant visa category are not tied to a specific employer, even if the employer files the petition on behalf of the individual. These immigrants do not need to request job portability authorization (under INA section 204(j)) or file a Supplement J when filing a Form I-485 to adjust status in the United States. See Instructions for Supplement J, which have the force and effect of regulation under 8 CFR 103.2(a)(1); the agency's preamble explanation to the final regulation implementing job portability for employment-based adjustment of status at p. 82424; and the USCIS Policy Manual on Job Portability after Adjustment Filing.

¹⁸ See USCIS update on H-1B Electronic Registration Process, noting that even though recent updates appear to have stemmed the H-1B Lottery's abuse, the number of applicants (470,342) still far outstripped the new visas available (85,000), resulting in a selection rate of approximately 25%.

¹⁹ See e.g., Miriam Jordan, "Tech Layoffs in U.S. Send Foreign Workers Scrambling to Find New Jobs," New York Times, Dec. 9, 2022.

Moreover, an employer offering NIW-qualifying work often may feature economies of scale: an employer can identify pockets of scientific work within its company or institution that are connected to the national interest. In this context, the employer is well-positioned to explain the work the employee (and their similarly-situated colleagues) has done within the industry to contribute to the advancement of its critical technological work, thereby enabling the employer to systematically prepare and apply for an NIW petition for people within that sector of the work. A comprehensive explanation of the work being performed and why it is in the national interest, as well as supporting documentation from company leaders and experts, can be used as supporting evidence in the petitions of all similarly situated applicants. While every petition must contain employee-specific information connecting the foreign national's specific qualifications, the cross-applicability of information related to specific areas of technology can create efficiencies not typically available in other employment-based petitions. These efficiencies may include saving the significant monetary costs associated with the individualized PERM process for attorney's fees, recruitment, and applicant review.

When considering a new approach to NIW petitions, practitioners should note that the NIW Policy Manual update specifically references other objective measures of when an endeavor is in the national interest, beyond the government's "Critical and Emerging Technologies List," such as when the endeavor is in an R&D-intensive industry, when it is a priority identified annually by the OMB and OSTP Directors in the President's budget, or when an interested federal agency confirms its national importance.²⁰

Although the NIW Policy Manual update specifically reiterates the value of a PhD in the context of a national interest waiver, the guidance also recognizes that STEM master's degree holders can qualify in certain situations. The authors are optimistic that NIW petitions for STEM master's graduates will be predictably adjudicated favorably where the individual's experience before petition filing is in a critical and emerging technology field, and strong evidence shows she is well-positioned to contribute to a specified area in such a field.

In this light, any such NIW program building should also avoid overextending the classification to individuals with little beyond a STEM master's degree or PhD on their resume, even if those degrees are in a critical and emerging field. Given the tendency of some beneficiaries, employers, and immigration practitioners to test the limits of new policy guidance, we may see more EB-2 denials in the NIW category, as a proportion of overall EB-2 denials, than in the past. For comparison, in 2019, USCIS denied 990 STEM EB-2 petitions, with 320 (32%) of those denials seeking NIW EB-2 classification. However, by fiscal year 2023, after the new guidance was issued and NIW classification petitions swelled, 90% of STEM EB-2 denials were for those seeking NIW classification (2,120 out of 2,400).²¹ The new guidance indicates a successful new approach can yield significant benefits for the right beneficiaries conducting the right kind of work. Nevertheless, the authors encourage caution. It remains just one tool in the toolbox for advanced STEM degree talent. It is not appropriate for all cases, and should not be treated as a universal remedy.

Whether working in a STEM field or otherwise, the NIW is only open for professionals with graduate degrees (or individuals who can document exceptional ability, or a bachelors plus five years of progressive experience in the field) who are also poised to advance particularized endeavors that can be characterized as in the national interest. In addition, as with all immigration adjudications, there is some level of subjectivity and discretion involved. There is therefore always the possibility of baffling or inconsistent decisions, even when new Policy Manual guidance attempts to flesh out details and examples. Of course, misapplication of this approach can backfire, as USCIS over-corrects through increased pushback via Requests for Evidence (RFEs) and denials.

Lessons for immigration law practitioners

The NIW Policy Manual update is an integral part of recent international STEM talent initiatives designed specifically to support U.S. economic and national security interests,²² which will continue to rely on emerging technologies. In light of the growing need for STEM talent, it provides STEM experts and their employers and counsel with clear, citable guidance. More employers and their counsel should offer the NIW approach to qualified advanced degree holders, while monitoring USCIS backlogs and the Visa Bulletin²³ to continue making informed and strategic decisions for each case. More should also test the boundaries of NIW approach. But, like all good experimentation, it must be done with careful consideration to ensure consistent and scalable results.

²⁰ See the explanation on evidentiary considerations for advanced STEM degree holders found in footnotes 64 to 69 and associated text in the Policy Manual guidance on NIW.

²¹ See STEM-Related Petition Trends, supra note 15. It is too early to tell, but the increased percentage of EB-2 STEM denials for NIW might be a function of the 2.5x increase in EB-2 STEM petitions via NIW.

²² White House Fact Sheet, Biden-Harris Administration Actions to Attract STEM Talent and Strengthen our Economy and Competitiveness (Jan. 21, 2022).

²³ See U.S. Department of State Visa Bulletin.

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