

# HARNESSING GLOBAL TALENT FOR REGIONAL INNOVATION

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## Executive Summary

In August 2022, President Biden signed the CHIPS and Science Act into law, kickstarting one of the biggest legislative efforts in recent memory to spur innovation in the United States. A central part of the endeavor is to bring together local businesses, universities, federal laboratories, and other partners in new “regional innovation hubs” to boost technological development.

How far this effort goes will depend on the talent — both domestic and international — the new hubs can attract. This brief offers a few critical agency-level actions that will help fledgling hubs take full advantage of the opportunity by strengthening their ability to recruit and retain international talent.

- U.S. Citizenship and Immigration Services (USCIS) regulations and policy guidance can ensure regional innovation hubs can access cap-exempt H-1Bs.
- Federal departments and agencies — including the National Science Foundation (NSF), the Department of Energy (DOE), and the Economic Development Agency (EDA) — can improve retention of STEM talent by acting as an “Interested Government Agency” to request waivers for J-1 visa holders who will participate in regional innovation initiatives and would otherwise be subject to the two-year home residency requirement.
- New regional innovation hubs can help participating noncitizens qualify for O-1, EB-1, and EB-2 National Interest Waiver visas by creating channels for experts to offer statements validating their accomplishments and contributions to the field.

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## Introduction

New federal innovation investments are designed to unlock regional innovation. The CHIPS and Science Act, passed in August 2022, established two major new regional innovation initiatives: the Regional Technology and Innovation Hubs (Tech Hubs) program under the EDA, and the Regional Innovation Engines and Translation Accelerators programs under the NSF Technology, Innovation, and Partnerships (TIP) Directorate. These new regional initiatives come on the heels of the Regional Clean Hydrogen Hubs program, which was created as part of the Infrastructure Investment and Jobs Act passed in November 2021 and aims to establish 6 to 10 hubs across the US.

These three regional hub initiatives are just part of a concerted effort by Congress in the last few years to spur regional development through place-based policies.<sup>1</sup> And the federal government plans to spend billions of dollars to bring these programs to fruition. It has authorized \$10 billion for Tech Hubs, \$6.5 billion for NSF Engines and Translation Accelerators, and \$8 billion for Clean Hydrogen Hubs over the next five years.

But these regional innovation hubs need more than big budgets to deliver on their mission. They will struggle if they are unable to attract new talent. Targeted action to make immigration regulations easier for these hubs will enable them to attract the talent they need for success.

### Three new initiatives for regional hubs

Program	Goal	Authorization	Authority
Regional Clean Hydrogen Hubs	6-10 Hydrogen Hubs	\$8 billion (2022-2026)	Department of Energy
Regional Technology and Innovation Hubs (Tech Hubs)	At least 18 Tech Hubs	\$10 billion (2023-2027)	Economic Development Administration, Department of Commerce
Regional Innovation Engines (NSF Engines) & Translation Accelerators	5 NSF Engines	\$6.5 billion (2023-2027)	Technology, Innovation, and Partnerships Directorate, National Science Foundation

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1 See Ryan Buscaglia and Melissa Roberts Chapman, “[Cluster Development is the New Economic Development](#),” January 2023 for a good overview.

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## Ensuring access to cap-exempt H-1Bs

H-1Bs allow employers to temporarily hire international professionals. However, the number of visas awarded each year is strictly capped at 85,000 and they are awarded based on a highly competitive lottery. Most applicants end up losing the lottery, which creates significant uncertainty for the worker and their sponsor. Because of this, many eligible applicants are dissuaded from applying for the program at all. The challenges of obtaining a cap-subject H-1B will make it difficult for regional innovation hubs to attract the experts they need.

However, H-1B workers can work at several types of cap-exempt organizations such as universities, nonprofit research organizations, and government research organizations (otherwise known as “qualifying” institutions). Cap-exempt H-1Bs offer qualifying institutions more reliable access to visas, flexible hiring throughout the calendar year, and lower fees than cap-subject H-1Bs. Congress exempted these institutions from the caps because higher education and research produce wide-ranging benefits for the United States.<sup>2</sup>

The federal government should modernize its definition of qualifying institutions to ensure that regional innovation hubs have access to cap-exempt visas. The ability to reliably hire skilled foreign workers will make new innovation ecosystems more competitive and encourage international talent, including international graduates of U.S. universities who often use H-1Bs as a bridge to permanent residency, to consider moving to regions they might otherwise overlook.

U.S. Citizenship and Immigration Services can contribute to the success of the regional innovation initiatives by updating its regulations and guidance around H-1B eligibility. And they won't have to wait long for the opportunity. The latest Unified Agenda on rulemaking from the Department of Homeland Security (DHS) lists an H-1B modernization rule soon to be published in 2023 and finalized in 2024.<sup>3</sup> This rulemaking should slightly update the existing regulations to ensure that regional innovation hub partners can access the H-1B visas needed to recruit global talent. The agency should also publish further updated guidance in the USCIS Policy Manual as needed.

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2 A 2006 USCIS memo concluded: “Congress deemed certain institutions worthy of an H-1B cap exemption because of the direct benefits they provide to the United States. Congressional intent was to exempt from the H-1B cap certain alien workers who could provide direct contributions to the United States through their work.” USCIS, “[Interoffice Memorandum Re: Guidance Regarding Eligibility for Exemption from the H-1B Cap Based on §103 of the American Competitiveness in the Twenty-First Century Act of 2000 \(AC21\) \(Public Law 106-313\)](#),” June 6, 2006.

3 Office of Information and Regulatory Affairs, OMB, “[Modernizing H-1B Requirements and Oversight and Providing Flexibility in the F-1 Program](#),” DHS RIN 1615-AC70, Fall 2022.

There are two primary changes that we recommend to unlock the potential of cap-exempt H-1Bs for regional innovation:

1. Provide criteria that allows non-qualifying members of regional hubs to hire cap-exempt workers as “third-party petitioners.”
2. Clarify when a nonprofit is considered a research organization.

These changes would ensure regional innovation hubs can continually access visas through the H-1B program.

### Third-party petitioners

Some employers that are normally subject to H-1B caps — such as for-profit entities — may still sponsor cap-exempt H-1B workers if they work at a qualifying institution. These “third-party petitioners” must establish a connection between the H-1B worker’s duties and the qualifying entity’s mission.

In a 2006 policy memo, USCIS elaborated on the statutory authority for third-party petitioners, noting that “Congress chose to exempt [from H-1B caps]...a broader category than [noncitizens] employed ‘by’ a qualifying institution.” Instead, Congress had the “intent that certain [noncitizens] who are not employed directly by a qualifying institution may nonetheless be treated as cap exempt when such employment directly and predominantly furthers the essential purposes of the qualifying institution.”<sup>4</sup>

Regional innovation initiatives are intended to foster R&D ecosystems where diverse organizations can collaborate to amplify their unique strengths to further a common objective. Many non-qualifying institutions can become third-party petitioners because they are furthering the purposes of both the hubs and their qualifying institutions as participants in regional hubs.

U.S. Citizenship and Immigration Services must not let the visa cap undermine the mission of a qualifying institution by making its essential partners less effective. Instead, the agency should update how adjudicators determine eligibility for third-party petitions to ensure a reliable supply of international talent for regional hubs. Urgent changes to the regulations and policy manual include:

- **Clarify that remote work counts toward the requirement that at least half of a worker’s time must be on-site at a qualifying institution.** Requiring physical presence on-site does not capture the nature of the work performed by a beneficiary. An increasing number of knowledge workers can—and do—spend significant time working remotely. This same privilege should be afforded to H-1B applicants if their remote work would otherwise be at a qualifying institution.

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4 Ibid.

- **Establish that a worker’s duties further a fundamental objective of a qualifying institution if those duties pertain to their employer’s role in a regional innovation effort that includes the qualifying institution.** New regional innovation programs are designed to form a coalition of regional partners with synergistic missions. As the NSF describes it, “each coalition will develop and implement a comprehensive strategic plan designed to produce a culture of innovation and diversity within the entire innovation ecosystem.”<sup>5</sup> Since hubs and engines are organized with a comprehensive strategic plan designed to foster cooperation, they will have already demonstrated to other agencies that their work furthers the mission of the qualifying institution. This should be sufficient to satisfy USCIS’s requirement for third-party petitioners.
- **Recognize that advancing regional innovation is a “normal, primary, or essential purpose” of any organization officially participating in a federally sponsored regional innovation initiative.** Although an institution may have other purposes, furthering regional innovation through a hub or engine should be sufficient to meet the USCIS’s criteria for cap exemption.

### Nonprofit and governmental research organizations

Current regulations state that a nonprofit organization qualifies for cap exemptions if it “is primarily engaged in basic research and/or applied research.” Similarly, a government organization qualifies if its “primary mission is the performance or promotion of basic research and/or applied research.” These overly strict definitions are not required by the statutory language creating H-1B cap-exemptions and exclude many important research organizations that are critical to the success of regional hubs.

To overcome these limitations, the USCIS should modify the definition of a “nonprofit or governmental research organization.”

- **Define research organizations to include nonprofits and government entities that conduct research as part of their role in a regional hub.** Many partners involved in regional hubs may conduct research in addition to other activities. Even when research is not their *primary* activity, it is often still a fundamental one. Moreover, the modified regulation should make clear that some government chartered nonprofits involved in hubs, such as the National Semiconductor Technology Center, should be qualifying nonprofit research organizations.
- **Define qualifying research as not solely basic and applied research, but also include the later stages of research, such as technology development and transfer.** A key goal of the regional hubs is the commercialization of its earlier

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5 National Science Foundation, “Dear Colleague Letter re: NSF Regional Innovation Engines (NSF Engines) Program,” May 3, 2022.

stage research.<sup>6</sup> Expanding the definition of qualifying research will help deliver on this aim.

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## Providing Interested Government Agency J-1 Waivers

The J-1 Exchange Visitor Program offers an uncapped visa pathway for visitors to come to the United States. However, some exchange visitors are required to return home for two years at the conclusion of their program before receiving another status that would allow them to live and work in the United States. This requirement applies if the visitor’s exchange program developed skills recognized by the State Department as necessary for the economic development of their home country or if the visit was funded either by the United States or their home country. This two-year home residency requirement makes it challenging for J-1 beneficiaries to smoothly transition to more permanent residency and for the country to retain talented J-1 visitors, even if their work is in the national interest of the United States or furthers the objectives of their J-1 exchange program.

The Biden administration has taken several actions to turn the J-1 into an important pathway for recruiting STEM talent, especially early-career talent through the Early Career STEM Initiative. Retaining these skilled beneficiaries in limited situations where they are contributing to regional hubs will allow them to further U.S. scientific progress and technological development.

Fortunately, all federal agencies are explicitly empowered to request that the State Department recommend that DHS waive the two-year home residency requirement for a particular J-1 visitor if the agency has an interest in that visitor staying. This Interested Government Agency (IGA) waiver request is officially transmitted from a federal agency to the Bureau of Consular Affairs at the Department of State.

**Agencies overseeing the new regional hubs — including the DOE, the Department of Commerce (DOC), and the NSF — should set up a formal process by which J-1 visitors involved in the hubs can apply for that agency to act as an Interested Government Agency and request a waiver.** A formal process including published criteria for eligibility would replace the ad hoc and opaque approach currently in place with a predictable, transparent, and efficient system that drives innovation.

The Department of Defense hosts a dedicated webpage for its J-1 waiver application process that should serve as a model to other agencies. The webpage includes a description of the department-specific application process based on potential contributions to research, development, test, and evaluation work in defense labs, universities and the defense industry, as well as an application checklist, the

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6 See NSF, “[Regional Innovation Engines](#),” Accessed on March 28, 2023 and DOE Office of Clean Energy Demonstrations, “[Regional Clean Hydrogen Hubs](#),” Accessed on March 28, 2023.

application form, and a sample sponsor letter.<sup>7</sup> Analogous websites should be set up by the DOE, DOC, and NSF for waiver requests based on potential contributions to regional hubs.

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## Updating agency guidance and hub structures to recruit extraordinary international workers

O-1, EB-1, and EB-2 National Interest Waiver (NIW) beneficiaries are among the most talented foreign workers who come to the U.S. To receive an O-1 or EB-1, beneficiaries must prove “extraordinary ability in the sciences, education, business, or athletics, which has been demonstrated by sustained national or international acclaim.”<sup>8</sup> EB-2 NIW beneficiaries must demonstrate that their endeavor in the United States is in the national interest and they are poised to make an important contribution that justifies waiving the usual job offer and labor certification requirements. These categories of workers could contribute cutting-edge ideas to regional innovation hubs, but today there are no defined pathways to help connect these highly-skilled workers to the hubs’ member organizations.

Both USCIS and the hubs themselves can make small clarifications to their processes to help attract talent through the O-1, EB-1, and EB-2 NIW pathways.

To qualify for an O-1 or an EB-1, the beneficiary must provide supporting evidence of their “extraordinary ability” in at least three qualifying categories. For example, one type of documentation requires the beneficiary to prove that they will be employed in a “critical or essential capacity for organizations and establishments that have a distinguished reputation.”<sup>9</sup> **USCIS should amend the policy manual to specify that organizations participating in regional hubs or organizations that have received awards under any of the initiatives in the CHIPS and Science Act or the Bipartisan Infrastructure Act have a “distinguished reputation.”**

Additionally, O-1, EB-1, and EB-2 NIW beneficiaries can strengthen their applications by submitting statements of fact by recognized experts or present/former employers certifying that the beneficiary has performed work or received awards that qualify them for an “extraordinary ability” visa.<sup>10</sup> New hubs, and the agencies overseeing them, should establish formal processes by which leading experts can submit statements of fact to USCIS attesting to the contributions of visa applicants.

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7 USD (R&E), “DoD J1 Visa Waiver Program.”

8 USCIS, *Policy Manual*, vol. 2, Part M, Chap. 2, accessed March 3, 2023.

9 USCIS, *Policy Manual*, vol. 2, Part M, Chap. 4, accessed March 3, 2023.

10 “Special requirements for admission, extension, and maintenance of status,” 8 CFR 214.2.

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## Conclusion

Congress has lofty ambitions for more than 20 new regional innovation hubs through the Tech Hubs, NSF Engines, and Hydrogen Hubs programs. If successful, they have the potential to accelerate economic growth and development across the country. However, the hubs' potential as innovation powerhouses will depend on their ability to attract talented workers from both within and outside the United States.

These hubs will be competing for talent with other employers across the United States as well as other countries like Canada and the U.K. Without changes to U.S. high-skilled immigration policy, the potential of regional innovation initiatives will be impaired by rules that place them at a comparative disadvantage. Fortunately, Congress has already empowered the executive branch with numerous tools to help hubs access the talent they will need to succeed. Now it's time to use them.