

CompeteAmerica

The Alliance for a Competitive Workforce

May 13, 2024

Brian Pasternak
Administrator, Office of Foreign Labor Certification
Employment and Training Administration
U.S. Department of Labor
200 Constitution Avenue NW, N-5311
Washington, DC 20210

**Re: Labor Certification for Permanent Employment of Foreign Workers in the United States; Modernizing Schedule A To Include Consideration of Additional Occupations in Science, Technology, Engineering, and Mathematics (STEM) and Non-STEM Occupations Request for Information
Department of Labor Docket No. ETA-2023-0006**

Dear Administrator Pasternak:

The Compete America coalition advocates for ensuring that the United States has the capacity to educate domestic sources of professional talent and to obtain and retain the foreign talent necessary for U.S. employers to continue innovating and creating jobs in the United States. Our coalition members include higher education associations, industry associations, the nation's largest business and trade associations, and individual employers — all working together to advance access to highly skilled professionals, including science, technology, engineering, and mathematics (STEM) talent, by growing our U.S. workforce and improving the U.S. high-skilled immigration system. For more than 25 years, Compete America has worked with successive administrations and Congress on issues critical to the professional global mobility of talent, as well as the functionality and integrity of the U.S. employment-based immigration system.

Members of our coalition are among the nation's foremost creators of jobs for U.S. workers. Our members contribute to the nation's economic strength and global competitiveness. In addition to the U.S. workers who comprise the vast proportion of their workforces, our members also leverage the talents of well-educated and highly skilled professionals from abroad, including professionals working in STEM fields. Many of these highly sought-after professionals have been drawn to this country, not only by the vast opportunities for innovation and growth offered by U.S. employers, but also by America's unmatched higher education system and world-class research and development enterprise. Compete America therefore has a strong interest in ensuring that the U.S. immigration system functions efficiently and effectively.

We welcome the opportunity to respond to the Request for Information (RFI) the U.S. Department of Labor's (DOL) Employment and Training Administration (ETA) published on December 21, 2023, "Labor Certification for Permanent Employment of Foreign Workers in the United States; Modernizing Schedule

A To Include Consideration of Additional Occupations in Science, Technology, Engineering, and Mathematics (STEM) and Non-STEM Occupations.”¹

SCHEDULE A IS AN IMPORTANT AND UNDERUTILIZED TOOL

The Compete America coalition believes that implementing a transparent methodology for consideration of occupations and categories, along with a regular cadence for review, would serve the interests of the United States, government agencies, employers, and workers.

When created in 1965, Schedule A identified occupations and categories of qualifications for which there were insufficient workers who were able, willing, qualified, and available, and in which the employment of foreign nationals would not adversely affect the working conditions of similarly employed workers.² Precertification of occupations through Schedule A not only streamlines processes for employers seeking to sponsor a foreign national for a position in a shortage occupation, it also provides significant benefits described in more detail below. Updating Schedule A would allow DOL to effectively manage its limited resources by decreasing the number of PERM Labor Certifications that the agency must process, for which it cannot collect fees.

Since Schedule A was established, the Secretary of Labor has held the authority to update the list “upon his own initiative or upon a written petition of any person requesting the inclusion or omission of any occupation or the modification of the application of the Schedule[.]”³ By providing such flexibility to the Secretary of Labor, Congress acknowledged that DOL’s expertise related to labor shortages and foreign workers allowed the agency to move more quickly than if Congress were to add or remove occupations or categories from a shortage list.

While the groups and requirements for occupations and categories included in Schedule A have expanded, retracted, and changed, the most recent update occurred in 1991.⁴ Accordingly, we welcome this opportunity to provide commentary on the inclusion or omission of occupations, along with potential methodologies and data for updating Schedule A more consistently on a regular basis.

¹ U.S. Department of Labor, Employment & Training Administration, Request for Information, *Labor Certification for Permanent Employment of Foreign Workers in the United States; Modernizing Schedule A To Include Consideration of Additional Occupations in Science, Technology, Engineering, and Mathematics (STEM) and Non-STEM Occupations*, 88 Fed. Reg. 88290 (Dec. 21, 2023), available at: <https://www.govinfo.gov/content/pkg/FR-2023-12-21/pdf/2023-27938.pdf>.

² Immigration and Nationality Act of 1965, P.L. 89-236 (Oct. 3, 1965), available at: <https://www.govinfo.gov/content/pkg/STATUTE-79/pdf/STATUTE-79-Pg911.pdf>.

³ Congressional Research Service, *Permanent Employment-Based Immigration: Labor Certification and Schedule A* (Dec. 20, 2023), available at: <https://crsreports.congress.gov/product/pdf/IF/IF12555>; U.S. Department of Labor, Final Rule, *Availability of, and Adverse Effect on American Workers*, 30 Fed. Reg. 14979, 14979-80 (Dec. 2, 1965), available at: [https://www.dol.gov/sites/dolgov/files/OALJ/PUBLIC/INA/REFERENCES/FEDERAL_REGISTER/30_FED. REG. 14979 \(DEC. 3, 1965\).PDF](https://www.dol.gov/sites/dolgov/files/OALJ/PUBLIC/INA/REFERENCES/FEDERAL_REGISTER/30_FED. REG. 14979 (DEC. 3, 1965).PDF).

⁴ Lindsay Milliken, *A Brief History of Schedule A: The United States’ Forgotten Shortage Occupation List* (Sept. 22, 2020), available at: <https://lawreviewblog.uchicago.edu/2020/09/22/milliken-schedule-a/>; Immigration Act of 1990, P.L. 101-649 (Nov. 29, 1990), available at: <https://www.justice.gov/sites/default/files/eoir/legacy/2009/03/04/IMMACT1990.pdf>.

REVITALIZATION OF SCHEDULE A REQUIRES FLEXIBILITY AND CLEAR REVIEW PROCESSES

Recommendations for Review Process

Compete America urges DOL to develop regulations, criteria, and a transparent review process to determine when occupations and categories should be added to or removed from Schedule A. A regular cadence and expectation of review by DOL would better reflect and respond to the needs of the U.S. labor market.

We encourage DOL to consider the Department of Homeland Security's (DHS) regulation and method for updating its STEM Designated Degree Program List.⁵ Similar to the Secretary of Labor's authorities to update Schedule A, the Secretary of Homeland Security has the authority to maintain a list of Science, Technology, Engineering, and Mathematics (STEM) degrees that may qualify an F-1 student for an additional 24-month extension of their Optional Practical Training (OPT) employment authorization.⁶ To accomplish this, DHS designed a process that solicits input from stakeholders regarding which fields of study should be added or removed from the STEM list.⁷ DHS designed the process to recur annually and to allow for easy submission of public input.⁸

Implementing a recurring and transparent review methodology would ensure that the occupations and categories included in Schedule A reflect current and projected labor market shortages and better respond to changes in the global economy. Compete America suggests DOL develop a regular review process to assess whether any occupations or categories should be added or removed from Schedule A. This would provide a predictable and consistent review timeline and would allow DOL to update the list of shortage occupations based on recent data and economic trends. The process should also allow DOL to update Schedule A outside of the annual cadence if data indicates major changes in occupation shortages.

To accomplish this, we urge DOL to issue a Notice of Proposed Rulemaking that explains the criteria it will consider, the model it will use, and the timelines it will follow. Furthermore, the resulting Final Rule should include the ability for DOL to update Schedule A via a Federal Register notice, which would reduce bureaucratic hurdles and delays.

Consideration of Categories & Qualifications in Addition to Occupations

Compete America encourages DOL to look beyond occupations for addition to Schedule A and to consider whether categories of qualifications and/or skills should be included in the list. When first

⁵ U.S. Department of Homeland Security, Final Rule, *Improving and Expanding Training Opportunities for F-1 Nonimmigrant Students with STEM Degrees and Cap-Gap Relief for All Eligible F-1 Students*, 18 Fed. Reg. 13040 (Mar. 11, 2016), available at: <https://www.govinfo.gov/content/pkg/FR-2016-03-11/pdf/2016-04828.pdf>.

⁶ See 8 C.F.R. § 214.2(f)(10)(ii)(C)(2)(ii) ("The Secretary, or his or her designee, will maintain the STEM Designated Degree Program List, which will be a complete list of qualifying degree program categories, published on the Student and Exchange Visitor Program Web site at <http://www.ice.gov/sevis>. Changes that are made to the Designated Degree Program List may also be published in a notice in the Federal Register. All program categories included on the list must be consistent with the definition set forth in paragraph (f)(10)(ii)(C)(2)(i) of this section.")

⁷ U.S. Department of Homeland Security, Notice, *Update to the Department of Homeland Security STEM Designated Degree Program List*, 88 Fed. Reg. 44381, 44382 (July 12, 2023), available at: <https://www.govinfo.gov/content/pkg/FR-2023-07-12/pdf/2023-14807.pdf>.

⁸ U.S. Immigration and Customs Enforcement, *Schools & Programs* (last updated Jan. 17, 2024), available at: <https://www.ice.gov/sevis/schools#dhs-stem-designated-degree-program-list-and-cip-code-nomination-process>.

devised, Schedule A included categories that covered workers based on their qualifications, as opposed to simply by their roles; for example, the original Schedule A included individuals with an advanced degree and at least two years of experience in an occupation related to and dependent on their studies.⁹

Incorporating factors that take into account the qualifications and skills required for the role could also enable the methodology to more accurately pinpoint shortages, forecast future needs, and determine how likely labor shortages may be resolved through market factors. For example, certain occupations may experience particularly acute shortages at the advanced degree level, and roles that require advanced degrees have longer lead-in times with respect to student preparation. This includes roles across many engineering and scientific disciplines involving research, development, cutting-edge innovation, and applied sciences, such as semiconductor design and process engineers, AI software development engineers, machine learning engineers, data scientists, and chemical and materials scientists. Comparing existing data on how many U.S. students are in the pipeline at the relevant education level to qualify them for certain roles could help inform how long it would take to resolve an expected labor shortage relying solely on U.S. students. Where the number of U.S. students in the educational or qualifications pipeline will not be sufficient to meet the demand in the near future at the needed education level, DOL could consider if foreign nationals – whether studying in the United States or already qualified – would help address the labor shortage.

REVITALIZATION OF SCHEDULE A WOULD ALIGN WITH NATIONAL INTERESTS AND BENEFIT THE U.S. DEPARTMENT OF LABOR, U.S. WORKERS, AND EMPLOYERS

National Interests & Policy Directives

Consistently reviewing Schedule A aligns closely with the United States’ national interests and bipartisan policy directives. For example, the recent Executive Order on the “Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence” states explicitly that the Biden administration “places the highest urgency on governing the development and use of AI safely and responsibly” and seeks for the “the United States to lead in this moment for the sake of our security, economy and society.”¹⁰ To accomplish this, the Executive Order highlights the need to “identify and attract top talent in AI and other critical and emerging technologies at universities, research institutions, and the private sector” and to “clarify and modernize immigration pathways for experts in AI and other critical and emerging technologies[.]”¹¹ DOL’s revitalization of Schedule A to include occupations involving AI and other critical and emerging technologies clearly aligns with the Biden administration’s urgent goals and the policies outlined in the Executive Order.

As explained in the Executive Order, the United States’ global competitiveness and national security depend on attracting and retaining global talent in emerging fields such as AI. The Canadian government’s program to provide temporary visas to foreign workers in the United States who hold H-

⁹ U.S. Department of Labor, Final Rule, *Availability of, and Adverse Effect on American Workers*, 30 Fed. Reg. at 14979-80 (Dec. 2, 1965).

¹⁰ Executive Order, *Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence*, § 1 (Oct. 30, 2023), available at: <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/>.

¹¹ *Id.* at 5.1(c)(ii), (d)(i).

1B nonimmigrant status provides a clear example of how immigration backlogs and barriers reduce the United States' global competitiveness for high-skilled talent and innovation.¹² Within 24 hours, the Canadian government reached its quota for 10,000 applicants, which demonstrates how quickly critical talent, and the innovation they bring, can flow to other countries when barriers to opportunities exist in the United States.¹³

U.S. Department of Labor

Reviewing the existing occupations included in Schedule A and expanding its reach to additional occupations and categories would better allow DOL to prioritize its limited resources and align its program with current governmental priorities. As noted by the Congressional Research Service, Schedule A represents “a pragmatic approach to the administrative burden of issuing individual labor certifications.”¹⁴

Revitalizing Schedule A would reduce the volume of PERM Labor Certification applications received by DOL's Office of Foreign Labor Certification (OFLC), which would help reduce the agency's workload and allow DOL to reallocate resources to reduce wait times for both Prevailing Wage Determinations (PWDs) and PERM Labor Certifications. While processing times for PWDs have improved as of March 2024, employers can still expect to wait approximately six to nine months.¹⁵ Similarly, DOL reported over 73,000 pending PERM Labor Certification applications in March 2024, with an average processing time of over one year; applications selected for audit by DOL are taking significantly longer.¹⁶ For critical or emerging sectors, such waits for workers can create significant impacts on morale, productivity, and retention.

DOL's most recent budget proposal acknowledged the extent of its limited resources and requested over \$6 million in additional funding and 35 full-time equivalent (FTE) employees. The requested supplemental funding and staffing would principally go toward addressing the OFLC's existing workload and backlogs, improving its case processing, and protecting the wages and working conditions of U.S. and foreign workers.¹⁷ OFLC's ability to address these processing delays and backlogs is hindered by its inability to collect fees for processing PWD requests and PERM Labor Certification applications, despite the agency's repeated requests in previous budget proposals.¹⁸

Revitalizing Schedule A and expanding the designation to additional occupations and categories would better allow DOL, and OFLC in particular, to direct its limited funding and resources toward achieving government and agency priorities. OFLC's Performance Data could be mined for insights into the occupations with a demonstrated shortage through PERM Labor Certification applications and the potential efficiencies DOL could gain from adding occupations to Schedule A. For example, between

¹² Government of Canada, *H-1B visa holder work permit* (Aug. 21, 2023), available at: <https://www.canada.ca/en/immigration-refugees-citizenship/services/work-canada/permit/h1b.html>.

¹³ Andy J. Semotiuk, Forbes, *H1-B Visa Program Introduced In Canada Faced Unexpected Results* (July 20, 2023), available at: <https://www.forbes.com/sites/andysemotiuk/2023/07/20/h1-b-visa-program-introduced-in-canada-faced-unexpected-results/?sh=505d3807db44>.

¹⁴ Congressional Research Service, *Permanent Employment-Based Immigration: Labor Certification and Schedule A* (Dec. 20, 2023), available at: <https://crsreports.congress.gov/product/pdf/IF/IF12555>.

¹⁵ U.S. Department of Labor, *Processing Times* (last updated Mar. 31, 2024), available at: <https://flag.dol.gov/processingtimes>.

¹⁶ *Id.*

¹⁷ U.S. Department of Labor, *Fiscal Year 2024 – Department of Labor Budget in Brief*, available at: <https://www.dol.gov/sites/dolgov/files/general/budget/2024/FY2024BIB.pdf>.

¹⁸ *Id.*

Fiscal Years 2020 and 2023, employers submitted over 80,000 PERM Labor Certification applications under the SOC Code for Software Developers, Applications.¹⁹ Other occupations with high PERM Labor Certification application volumes include Software Developers, Systems Software (over 32,000), Computer Occupations, All Other (over 20,000), Computer Systems Analysts (over 19,000), Statisticians (over 8,000), Electronics Engineers, Except Computer (over 6,500), Accountants and Auditors (over 5,000), Computer and Information Systems Managers (over 4,700), and Mechanical Engineers (over 4,000).²⁰ Regardless of whether these common occupations or others are added to Schedule A, DOL would benefit significantly from a smaller PERM Labor Certification workload.

Workers and the U.S. Economy

U.S. workers would also benefit from OFLC's reallocation of resources and priorities made possible by expansion of Schedule A. The agency's limited resources could be refocused on programs that protect the interests and rights of U.S. workers. U.S. workers would also benefit from readily available, up-to-date information on occupations and skills that are currently in shortage.

Revitalizing Schedule A could help retain foreign workers in occupations critical to the United States' interests. Foreign workers qualified for occupations included on Schedule A would benefit from a less burdensome pathway to obtaining an immigrant visa petition priority date, a critical part of the process of qualifying for permanent residence. Staggering wait times to attain permanent residence in the U.S. make it extremely difficult for skilled talent to make long-term life decisions, such as buying a home and making other investments in the United States. Green Card applicants born in backlogged countries, such as India, must repeatedly secure extensions of their nonimmigrant status that depend on completing the PERM process.²¹ These applicants often face difficult decisions about how to take advantage of career opportunities without jeopardizing their application and often share the professional and personal hardships that being in limbo causes for themselves and their families. Children of nonimmigrants caught in the backlog are at risk of "aging out" of their dependent status at age 21, leaving them with few viable options to remain in the United States, despite it being their home. For many families, it is simply too difficult to remain in the U.S. without a clear picture of their future.

Employers

Employers in the United States would significantly benefit from more consistent review of Schedule A and the addition of occupations or categories experiencing labor shortages. As described in the original regulations for Schedule A, occupations and categories were added "[t]o reduce the delay in processing an alien's request for visa[.]"²² DOL's designating an occupation or category for inclusion in Schedule A would provide greater certainty to employers about their ability to overcome current labor shortages affecting their organizations. For designated shortage occupations, employers would no longer face delays with PERM Labor Certification applications, and other challenges that make it more difficult for employers to attract and retain talent to fill critical needs. As shown by the DOL Performance Data discussed above, the addition of occupations or categories to Schedule A would also significantly reduce administrative burdens and costs on employers.

¹⁹ U.S. Department of Labor, *Performance Data*, available at: <https://www.dol.gov/agencies/eta/foreign-labor/performance>.

²⁰ *Id.*

²¹ American Competitiveness in the Twenty-First Century Act of 2000, P.L. 106-313 (Oct. 17, 2000), available at: <https://www.govinfo.gov/content/pkg/PLAW-106publ313/pdf/PLAW-106publ313.pdf>.

²² U.S. Department of Labor, Final Rule, *Availability of, and Adverse Effect on American Workers*, 30 Fed. Reg. at 14979-80 (Dec. 2, 1965).

REVIEW METHODOLOGY SHOULD TAKE INTO ACCOUNT OBJECTIVE DATA, NATIONAL INTERESTS, AND CONSIDERATIONS FROM U.S. LEADERS, EMPLOYERS, AND STAKEHOLDERS

The RFI asks for feedback on the appropriate sources of data that DOL might consider beyond the U.S. Bureau of Labor Statistics (BLS) Occupational Employment Wage Statistics (OEWS), the U.S. Census Bureau's American Community Survey (ACS), and Current Population Survey (CPS) data. In particular, DOL has requested comments on how it could establish a reliable, objective, and transparent methodology for identifying occupations with significant shortages of workers that should be added to Schedule A.

Compete America encourages DOL to consider a range of inputs in developing its methodology, both quantitative factors, including data sets from multiple sources, and qualitative factors, including national interests, policy directives, and input from U.S. leaders and stakeholders.

Quantitative Factors

The Compete America coalition encourages DOL to consider a broad range of quantitative factors and data to develop a transparent methodology for updating Schedule A. Recently, the Institute for Progress (IFP) released a report that proposes a “transparent, objective, and data-driven method by which the Department of Labor (DOL) can regularly update the Schedule A shortage occupation list.”²³ Building off examples of shortage occupation methodologies from other countries, IFP’s “Help Wanted Index” is proof-of-concept that a data-driven model is possible.

IFP’s model incorporates a range of available data from ACS, BPS, and proprietary labor market data from Lightcast, including (1) percentage change in the median wage over one year and over three years, (2) job vacancy postings per worker, (3) percentage change in employment over one year, (4) percentage change in median paid hours worked over three years, (5) labor force non-participation, (6) unemployment rate, (7) three-year lagged unemployment rate, (8) job-to-job transition rate over one year, and (9) income premium.²⁴ As explained in its report, IFP identified shortcomings in the existing data – such as lack of segmentation by occupation for some data sets – but concluded that implementing a more transparent, data-driven model for updating Schedule A “could help identify data collection improvements to BLS or the Census Bureau data that would facilitate better decision-making around shortages.”²⁵

Other examples of data that DOL could consider incorporating into its methodology include (1) projected job growth in different occupation categories, (2) the demographic makeup of the students across educational levels enrolled in degree earning programs in relevant fields of study (e.g., electrical engineering) in the United States, including the number and percentage of students who are U.S. citizens and lawful permanent residents; (3) regional data that takes into account differences in labor shortages

²³ Lindsay Milliken, Jeremy Neufeld & Greg Wright, The Institute for Progress, *Help Wanted: Modernizing the Schedule A Shortage Occupation List* (Dec. 14, 2023), available at: <https://ifp.org/schedule-a/>.

²⁴ *Id.*

²⁵ *Id.*

and demands on both a national and local level, and (4) DOL's own data on the occupations and categories most often pursued through the current PERM Labor Certification process. DOL's Performance Data could be mined for additional insights into the number of PWD requests and PERM Labor Certification applications and expense that could be avoided by expanding Schedule A to different occupations or categories.²⁶

Qualitative Factors

Compete America encourages DOL to carefully consider the types of data sources it would rely on to identify occupations and categories to be added or removed from Schedule A. We also recommend that DOL adopt a methodology that includes both data-driven analysis, national interests and policy goals, and other considerations from U.S. leaders and stakeholders.

National Interests & Policy Directives

Current U.S. policy objectives and national interest provide useful guideposts for occupations and categories that DOL should consider including in revisions to Schedule A.

CHIPS Act & Semiconductor Manufacturing Capabilities. The CHIPS and Science Act of 2022 provides a clear example of how U.S. policy goals inform the types of occupations that DOL should consider for Schedule A. Passed with bipartisan support, the CHIPS and Science Act aims to boost American semiconductor research, development, and production, in order to ensure U.S. leadership in this fundamental technology.²⁷ As detailed in the legislation, the United States' reliance on foreign production of semiconductors and related technological advances highlights the national security considerations tied to occupations involving semiconductors.²⁸ As more than 80% of semiconductor manufacturing capacity is located in Asia, the United States must prioritize talent and workforce development while attracting global talent in order to accomplish these goals.²⁹

Under the CHIPS and Science Act, the American semiconductor industry will receive \$52.7 billion to bolster U.S. leadership in semiconductors and \$1.5 billion for promoting and deploying wireless technologies, with the goals of advancing U.S. global leadership in these technologies of the future, creating new businesses, generating new high-paying jobs, and boosting U.S. exports.³⁰ The addition of occupations involved in semiconductor research, development, and production to Schedule A would significantly boost the United States' ability to achieve these goals, while the CHIPS and Science Act's

²⁶ U.S. Department of Labor, *Performance Data*, available at: <https://www.dol.gov/agencies/eta/foreign-labor/performance>.

²⁷ White House Office, Fact Sheet, *CHIPS and SCIENCE Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China* (Aug. 9, 2022), available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/>.

²⁸ *Id.*

²⁹ Duncan Stewart & Karthik Ramachandran, Deloitte Insights, *Chipping in to boost production: US and Europe move toward greater self-sufficiency and resilient supply chains* (Apr. 24, 2023), available at: <https://www2.deloitte.com/xe/en/insights/industry/technology/semiconductor-manufacturing.html>.

³⁰ White House Office, Fact Sheet, *CHIPS and SCIENCE Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China* (Aug. 9, 2022).

investments in STEM education and training opportunities work to strengthen the U.S. workforce to fill those needs.³¹

It is projected that 67,000 new jobs across semiconductor manufacturing and design are likely to go unfilled by 2030.³² In particular, the semiconductor industry reports acute shortages of qualified engineers with advanced degrees specializing in semiconductor fabrication, infrastructure technology, quality assurance and reliability testing, among other others. Shortage occupations include engineers, technical architects, and other occupations involved in designing and manufacturing semiconductor products that are integral innovations in different settings, including applications for advanced computing, artificial intelligence, mobile computing, and automotive technologies.

Artificial Intelligence & Other Critical and Emerging Technologies. As discussed above, the recent Executive Order on Artificial Intelligence and the government’s critical and emerging technologies list provide useful information regarding which occupations and categories the United States has identified as essential to its national interests and security.

Compete America urges DOL to consider the broad range of occupations and roles that are involved in these fields and technologies that the United States government has identified as critical to the continued competitiveness of the United States labor market. For example, the research, design, and implementation of AI capabilities into existing and future technologies will require not only the skills of AI and Machine Learning engineers and researchers, but also depends on the contributions of data scientists, software developers, product managers, and user experience (UX) researchers and designers. Similarly, occupations related to cybersecurity align with governmental interests and the advancement of AI and emerging technologies.

Occupations & Qualifications in STEM and Non-STEM Fields. Ongoing bipartisan support for STEM educational opportunities and training in the United States points toward the inclusion of occupations and qualifications in STEM fields on a revitalized Schedule A list.³³

At the master’s degree level, international students are earning an increasing share of science and engineering degrees compared to U.S. citizens and permanent residents.³⁴ As of 2019, international students accounted for approximately one-third of all doctoral degrees awarded in science and engineering.³⁵ In certain fields of study, like electrical engineering and computer science, international students often make up a majority of those enrolled in advanced degree programs at U.S. institutions of higher education. According to the National Center for Science and Engineering Statistics, in 2021, half or fewer graduate students studying critical STEM fields were U.S. citizens or permanent residents: artificial

³¹ *Id.*

³² Semiconductor Industry Association, *Chipping Away: Assessing and Addressing the Labor Market Gap Facing the U.S. Semiconductor Industry* (July 2023), available at: https://www.semiconductors.org/wp-content/uploads/2023/07/SIA_July2023_ChippingAway_website.pdf.

³³ See, e.g., Mathematical and Statistical Modeling Education Act, S.2739, 118th Congress (2023-2024), (introduced Sept. 7, 2023), available at: <https://www.congress.gov/118/bills/s2739/BILLS-118s2739is.pdf>.

³⁴ National Science Foundation, National Science Board, *The State of U.S. Science and Engineering 2022* (Jan. 2022), available at: <https://ncses.nsf.gov/pubs/nsb20221/u-s-and-global-stem-education-and-labor-force>.

³⁵ *Id.*

intelligence (50%); electrical, electronics, communications, and computer engineering (39%); and computer science (33%).³⁶ At the same time, BLS data confirms that STEM occupations are projected to grow by 10.8% by 2032.³⁷

Analysis of the expected growth of STEM occupations and the smaller share of post-secondary degrees in STEM being awarded to U.S. citizens and permanent residents could be factored into a methodology for identifying occupations or categories that are facing or soon to experience labor shortages.

Compete America encourages DOL to develop a methodology and process that is not limited to only the above-listed occupations. As an example, Certified Public Accountants (CPAs) and other accounting professionals are in short supply, with approximately three-quarters of CPAs at or near retirement age and decreasing numbers of U.S. university students pursuing the skills and qualifications required for these positions.³⁸ The methodology DOL adopts should provide greater flexibility to address future unforeseen labor trends and challenges and would create a more objective process.

Input from U.S. Leaders, Employers & Stakeholders

To gather a broader and more accurate view of labor shortages and projected needs, we urge DOL to include consultation with leading business groups, economists, labor trend experts, states, and other stakeholders as part of its methodology. A data-driven approach depends on the data sources and survey methodologies, which do not give a comprehensive view of the labor market and the challenges employers face.

Compete America also encourages DOL to consider factors that employers commonly use to identify roles with an insufficient number of qualified and available U.S. workers. For example, trends identified through on-campus recruiting efforts, internship programs, research collaborations, and other engagements with university partners help shed light on labor shortages employers are facing or are likely to face in the future.

DOL should also consider input from institutions of higher education, which have valuable data and insights into both educational pathways and career preparation for both U.S. students and foreign students. Institutions of higher education may have specific insights into the challenges of educating a modern workforce to address ongoing occupation shortages. For example, a recent survey of scientists at research-intensive universities found that 90% of respondents felt current immigration policies hindered attracting top talent to U.S. universities, the development of a scientific workforce, and the strength of high-tech industries in the U.S.³⁹

³⁶ National Center for Science and Engineering Statistics (NCSES), *Survey of Graduate Students and Post Doctorates in Science and Engineering*, Table 2-4, Graduate students in science, engineering, and health broad fields, by degree program, citizenship, ethnicity, and race: 2021 (2023), available at: <https://nces.gov/survey/graduate-students-postdoctorates-s-e/2021#survey-info>.

³⁷ U.S. Bureau of Labor Statistics, *Employment Projections: Employment in STEM Occupations* (Sept. 6, 2023), available at: <https://www.bls.gov/emp/tables/stem-employment.htm>.

³⁸ Stephen Foley, Financial Times, *Dire shortage of accountants prompts calls for shake-up* (Jan. 3, 2024), available at: <https://www.ft.com/content/4f881a21-a3c2-46ed-a038-fbf4a797e823>.


³⁹ Mary K. Feeny, et al., Research in Higher Education, *U.S. Visa and Immigration Policy Challenges: Explanations for Faculty Perceptions and Intent to Leave* (Mar. 6, 2023), available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9986046/#Sec9>.

Collaborating with and gathering data from state labor, employment, and workforce development entities could provide a different and valuable resource when considering updates to Schedule A. State governments and research entities may also be valuable resources for data and insights for specific regions of the country and supplement other data sets available to DOL.

CONCLUSION

Compete America appreciates the DOL's issuance of this Request for Public Input and consideration of the above feedback and recommendations. We are heartened to see that the U.S. Department of Labor is gathering information and resources to reinvigorate the use of Schedule A. We urge DOL to prioritize such rulemaking as vital to the continued competitiveness of the United States in the global economy and to develop a methodology that will allow for a broad set of occupations – not just those categorized as STEM – to be considered for inclusion in a revised Schedule A. We look forward to continued dialogue with DOL and will continue working with Congress and the Administration to advocate for reforms to the United States immigration system.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Scott Corley', written in a cursive style.

Scott Corley
Executive Director
Compete America Coalition