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May 13, 2024

Julie Su
Acting Secretary, U.S. Department of Labor

Brian Pasternak, Administrator
Office of Foreign Labor Certification
Employment and Training Administration
Department of Labor

Re: RIN 1205-AC16, *Labor Certification for Permanent Employment of Foreign Workers in the United States; Modernizing Scheduling A to include Consideration of Additional Occupations in Science, Technology, Engineering and Mathematics (STEM) and non-STEM Occupations*

Dear Administrator Pasternak,

The Economic Policy Institute (EPI) is a nonprofit, nonpartisan think tank established in 1986 to include the needs of low- and middle-income workers in economic policy discussions. EPI conducts research and analysis on the economic status of working people, proposes public policies that protect and improve the economic conditions of low- and middle-income workers—regardless of immigration status—and assesses policies with respect to how well they further those goals. EPI has researched, written, and commented extensively on the U.S. system for labor migration, including in particular the employment-based permanent and temporary visa programs and pathways for STEM workers. EPI submits these comments to the U.S. Department of Labor in response to their Request for Information regarding the changes proposed to the Schedule A list which allows employers to bypass the permanent labor certification process.

We believe that immigrants—which make up nearly one-fifth of the total U.S. labor force—play a significant role in the U.S. economy and make key contributions in virtually every industry and occupation, are a source of vitality and innovation, and will be the main driver of future workforce growth according to demographic estimates. A well-informed and data-driven labor migration strategy is therefore essential for a successful developed economy in the 21st century. The Department plays a primary role in ensuring that immigrants can be recruited and hired into the U.S. labor force in a manner that is fair to both temporary migrants and immigrants—by taking actions to protect and improve their wages and working conditions, as well as those of U.S. workers—and the Department is responsible for ensuring that U.S. workers have a fair opportunity to apply and be hired for job openings in the United States, as well as balancing the interests of workers and employers. We hope the Department keeps these responsibilities in mind as it considers modifications to the Schedule A list.

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Introduction

We thank the Department of Labor (hereinafter, “Department”) for the opportunity to submit comments on the Request for Information (RFI) that seeks input on the consideration of developing a novel process to determine which, if any, occupations should be listed on Schedule A. Employers are exempted from performing a permanent labor certification before obtaining an Employment-Based (EB) green card for any occupation on the list, thus, adding occupations to the list must be done carefully, and with a credible and transparent methodology because it will have serious impacts on the labor market.

When it comes to Schedule A, we strongly believe that doing away with the labor market test for more employers and occupations by expanding the shortage list will effectively eliminate labor standards protections for U.S. workers, including current and future workers who are qualified, willing, and able to fill jobs in the listed occupations. The current occupations on Schedule A have been listed there for three decades, yet the Department has not studied their impact on current workers or the pipeline for new workers in the relevant industries.

Bypassing labor certification via Schedule A is an intervention into the natural functioning of the labor market and should only be done when there is clear and convincing evidence that it is warranted. Schedule A interferes with price signals—wages plus working conditions—by reducing demand and can create an environment where employers become dependent on workers from abroad and fail to take actions that would allow them to better recruit and hire for positions with workers who are already in the U.S. labor force.

In sum, the Department runs the risk of significantly distorting markets at the expense of U.S. workers and students in the short- and long-term. Absent a genuine structural shortage, bypassing certification crowds out U.S. workers, undercuts their wages and undermines their working conditions and bargaining power, and discourages domestic students from entering those occupations. It also discourages employers from developing and broadening talent pipelines, providing career development paths, and investing in workforce development and training. These outcomes are at odds with the Department’s mission statement, “To foster, promote, and develop the welfare of the wage earners, job seekers, and retirees of the United States; improve working conditions; advance opportunities for profitable employment; and assure work-related benefits and rights.”¹ Any new Schedule A determination must fully account for the tradeoffs, including distributional implications, of such actions.

Doing so requires a complete understanding and description of the complex dynamics involved in labor supply and demand, and market clearing. Genuine labor shortfalls, if and when they exist, create incentives for market participants to adjust to market realities by seeking to make their jobs more attractive by raising wages, improving working conditions, and investing in new sources of labor supply, for example by broadening recruitment pools and through training and apprenticeship programs. But each Schedule A listing short-circuits those natural adjustments, distorting the incentives for key participants to move the market towards equilibrium. The Department needs to impartially weigh the costs against the

¹ U.S. Department of Labor, “Our Mission,” on [About Us](#) page (accessed May 12, 2024).

benefits, and identify the distributional impacts, as part of its process. The Department should also recall that many economists do not believe that labor shortages exist at all—because markets adjust on their own. The Department should tread lightly when making such a significant intervention in the market.

Instead of acknowledging the complex dynamics and tradeoffs of such actions, the Department’s RFI provides a surprisingly narrow, simplistic, and uninformed description of the STEM labor market, labor shortages, STEM education, and workforce development. Such a distorted picture undermines the Department’s credibility that it has the capacity to formulate a determination process that is “reliable, objective, and transparent.”

As we will discuss, it is apparent, based on the descriptions of the STEM labor market in the RFI, that the Employment and Training Administration (ETA) does not have the expertise to determine labor shortages. ETA should work with experts across the broader Department, including the Bureau of Labor Statistics (BLS), which is tasked with studying and reporting on the U.S. labor market and has the requisite expertise to draw conclusions about it, to ensure that the process is based on the best available metrics and methodologies.

The Department makes unjustified assumptions and ignores important research findings on STEM labor markets

The clear orientation expressed by the Department’s RFI is that there are STEM labor shortages in many occupations, which cannot be easily addressed by the market on its own. Rather than carefully interrogate and engage with the extensive available evidence on the matter, the Department in the RFI assumes that labor shortages exist in STEM, and further assumes they are commonplace and persistent. The Department relies on sources almost exclusively from special interest groups that stand to gain financially from an expanded Schedule A list. The Department ignores a well-documented record of research, including from the Department’s own data and publications, which show that there is no widespread, generalized STEM labor shortage. Those data also show that most claims made about STEM shortages, including within detailed occupations and geographies, do not hold up to even the most basic analytic scrutiny.

Unsubstantiated claims of labor shortages have been a running feature of STEM workforce policy discussions for seven decades, and have been debunked for just as long. Consider Kenneth J. Arrow and William M. Capron’s *Dynamic Shortages and Price Rises: The Engineer-Scientist Case*, published in 1958, which states: “In view of all the discussion of the [engineers and scientists] ‘shortage’ problem, it is remarkable how little direct evidence is available.”² Nearly 60 years later, in 2014, Michael S. Teitelbaum wrote the definitive book about STEM labor shortage claims. In it he states, “the alarms about widespread shortages or shortfalls in

² Kenneth J. Arrow and William M. Capron, [*Dynamic Shortages and Price Rises: The Engineer-Scientist Case*](#), *The Quarterly Journal of Economics*, Vol. 73, No. 2, Oxford University Press, May 1958.

the number of U.S. scientists and engineers are quite inconsistent with nearly all available evidence.”³

Indeed, much evidence exists to suggest that wholesale STEM labor shortages do not exist, and that these issues of worker supply and demand are best evaluated through the lens of particular fields, industries, types of jobs, and geographic locations. Further, any assessment should distinguish between transient versus steady state changes and identify how the system responds to shortages or surpluses. Numerous reports, analyses, books, and news articles have looked at demand and supply in the STEM workforce and the STEM labor market across disciplines and educational levels.⁴ Nonetheless, the perceptions of large and widespread shortages endure, influencing policy agendas and choices. Moreover, the main stakeholder groups steering these discussions—businesses, universities, and government research agencies—benefit from the push to train and recruit and hire more STEM workers from abroad. Other important stakeholders including students and workers themselves who may be harmed by large increases in supply, rarely, if ever, have their interests formally represented in these policy discussions.⁵ Excluding these groups is rationalized by the false impression that STEM workers wield significant agency and voice, or that their interests are aligned with their employers. In reality, serious collective representation of, and advocacy for, STEM workers is extremely limited. For example, a mere 3.7% of computer and mathematical workers, who account for more than half of the STEM workforce (10 million), are members of labor unions.⁶ In addition, the news reports of STEM employers engaging in unscrupulous and blatantly anti-union labor practices, show that many STEM employers hope to keep their employees from having representation in the workplace and from improving their conditions.⁷

Professor John Skrentny’s new book *Wasted Education: How We Fail Our Graduates in Science, Technology, Engineering, and Math* describes how STEM employers are to blame for these

³ Michael S. Teitelbaum, [*Falling Behind?: Boom, Bust, and the Global Race for Scientific Talent*](#), Princeton University Press, March 30, 2014.

⁴ See for example, David M. Blank and George J. Stigler, “[The Demand and Supply of Scientific Personnel](#),” National Bureau of Economic Research, January 1957; Yi Xue and Richard C. Larson, “[STEM crisis or STEM surplus? Yes and yes](#),” *Monthly Labor Review*, U.S. Bureau of Labor Statistics, May 2015; William Butz, Gabrielle Bloom, Mihal Gross, K. Kelly, Aaron Kofner, Helga Rippen, “[Is There a Shortage of Scientists and Engineers? How Would We Know?](#)” Rand Corporation, 2003; John F. Sargent Jr., [*The U.S. Science and Engineering Workforce: Recent, Current, and Projected Employment, Wages, and Unemployment*](#), Congressional Research Service, R43061, Version 11, updated November 2, 2017; Paula Stephan, “[Too many Scientists?](#)” *Chemistry World* (Royal Society of Chemistry), January 22, 2013; and Robert Charette, “[The STEM Crisis is a Myth](#),” *IEEE Spectrum*, August 30, 2012.

⁵ Ron Hira, “[U.S. Workers in a Global Job Market](#),” *Issues in Science and Technology*, Vol. XXV, No. 3, Spring 2009.

⁶ U.S. Bureau of Labor Statistics, “[Table 3. Union affiliation of employed wage and salary workers by occupation and industry](#),” Economic News Release; “[Table 1.1A Employment by major occupational group, 2021, and projected 2031, including adjustments for realized gains](#),” Employment by major occupational group, and “[Table 1.11 Employment in STEM occupations, 2022 and projected 2032](#),” Employment Projections, U.S. Department of Labor, accessed May 12, 2024.

⁷ See for example, Akash Sriram and Daniel Wiessner, “[Eight SpaceX employees say they were fired for speaking up against Elon Musk](#),” *Reuters*, November 17, 2022; Steven Greenhouse, “[Major US corporations threaten to return labor to ‘law of the jungle’](#),” *The Guardian*, March 10, 2024.

realities.⁸ Their practices create unstable and unwelcoming job conditions: “STEM work drives away bright graduates as a result of ‘burn and churn’ management practices, lack of job security, constant training for a never-ending stream of new—and often socially harmful—technologies, and the exclusion of women, people of color, and older workers.”

Mass layoffs by STEM employers belie shortage claims and large users of PERM have recently been caught violating labor certification rules

Further, the RFI is being issued at a time of mass layoffs by major technology firms, numbering in the hundreds of thousands over the past three years.⁹ These same technology firms are major petitioners for both temporary work visas¹⁰ and employment-based green cards, and are lobbying for changes to Schedule A to bypass protections for the domestic workforce. Google, Amazon, Microsoft, and Facebook (Meta) were the top four recipients of certified PERM applications in fiscal year (FY) 2023 according our analysis of DOL disclosure data.¹¹ Meanwhile, Google, Amazon, Microsoft, and Meta have announced layoffs of more than ten thousand workers each over the past three years according to news reports compiled by the website [Layoffs.fyi](https://layoffs.fyi).¹²

These firms are all active members of the Schedule A Coalition pressuring the Department to undertake the very process outlined in the RFI to “regularly update the Schedule A shortage occupations list to help alleviate labor shortages.”¹³ Their comments to this RFI also show they support an expansive approach to Schedule A, and are urging the Department to add more occupations to the list. The Department should question whether these firms are motivated by alleviating true shortages or if they simply cannot meet the standards required in the permanent labor certification process—because they are not in fact, experiencing a shortage—and thus are seeking a way to exclude U.S. workers by way of Schedule A, as well as seeking to avoid accountability for breaking the law by circumventing the process.

Two recent lawsuit settlements provide important insight and prove the legitimacy of our concern. The suit brought by the DOL with the Department of Justice (DOJ) accused Meta (the

⁸ John Skrentny, *Wasted Education: How We Fail Our Graduates in Science, Technology, Engineering, and Math*, University of Chicago Press, 2023.

⁹ Alyssa Stringer and Cody Corral, “[A comprehensive list of 2024 tech layoffs](#),” *TechCrunch*, May 7, 2024; see also [Layoffs.fyi](https://layoffs.fyi) website (last visited May 12, 2024).

¹⁰ See for example, Daniel Costa and Ron Hira, “[Tech and outsourcing companies continue to exploit the H-1B visa program at a time of mass layoffs: The top 30 H-1B employers hired 34,000 new H-1B workers in 2022 and laid off at least 85,000 workers in 2022 and early 2023](#),” *Working Economics* blog (Economic Policy Institute), April 11, 2023.

¹¹ Office of Foreign Labor Certification, [OFLC Performance Data](#), Employment and Training Administration, U.S. Department of Labor.

¹² [Layoffs.fyi](https://layoffs.fyi) website (last visited May 12, 2024).

¹³ Lindsay Milliken, “[Coalition of Experts Urges DOL to Update the Schedule A Shortage List: DOL should regularly update the Schedule A shortage occupation list to help address labor shortages](#),” Institute for Policy, June 28, 2024.

#4 PERM recipient in FY23) of using “recruiting methods designed to deter U.S. workers from applying to certain positions [and] ... refused to consider U.S. workers who applied to the positions.”¹⁴ The Meta lawsuit was a result of the Department’s audit examination of pending PERM applications.

There was also a “landmark” settlement with Apple (#9 PERM recipient in FY23) which alleges that Apple, “did not advertise positions Apple sought to fill through the PERM program on its external job website, even though its standard practice was to post other job positions on this website. It also required all PERM position applicants to mail paper applications, even though the company permitted electronic applications for other positions.”¹⁵

These blatant violations of simple, straightforward rules requiring that firms hiring through PERM first advertise jobs to U.S. workers are examples of major users of EB green cards seeking to game the system and bypass the U.S. workforce altogether. If a genuine shortage of STEM workers existed in the United States, as many technology firms claim, including those in the Schedule A Coalition—then it should be simple and straightforward to prove it by fairly and transparently advertising jobs to U.S. workers. Instead of doing that, major STEM employers are engaging in unlawful and unethical tactics to avoid hiring STEM workers who already reside in the United States. The Department should consider and weigh these cases heavily when making updates to labor certification rules and Schedule A.

News reports suggest that, perhaps in response, both Google and Amazon have stopped submitting new PERM applications to the Department because they are unable to meet the labor certification requirements.¹⁶ It is also reported that evading labor certification is a major motivation for the firms that seek changes to Schedule A that would expand the list of shortage occupations.¹⁷ Given this recent evidence, it seems reasonable to assume that these employers claiming that labor shortages exist, are using those claims as a tactic, as nothing more than a mere pretext, as a way to evade and avoid the process of completing a permanent labor certification and complying with existing rules, which simply require that employers advertise, recruit, and hire, qualified U.S. workers before hiring an immigrant worker.

The STEM labor supply in the United States is robust and responds to labor market signals

The RFI claims that there is a STEM shortage due to “a lack of interest in STEM occupations [and] a STEM branding problem with younger generations...” But nothing could be further

¹⁴ U.S. Department of Justice, “[Justice, Labor Departments Reach Settlements with Facebook Resolving Claims of Discrimination Against U.S. Workers and Potential Regulatory Recruitment Violations](#),” Press Release, October 9, 2021.

¹⁵ U.S. Department of Justice, “[Justice Department Secures \\$25 Million Landmark Agreement with Apple to Resolve Employment Discrimination Allegations Based on Citizenship Status](#),” Press Release, November 9, 2023.

¹⁶ Hugh Langley, Kali Hays, and Eugene Kim, “[Big Tech’s big green card problem](#),” *Business Insider*, May 2, 2024.

¹⁷ Patrick Thibodeau, “[Microsoft, Google seek green card rule change](#),” TechTarget, May 3, 2024.

from the truth. The actual evidence contradicts such outlandish—and more importantly unsubstantiated—claims. The evidence shows that young American are ‘able, willing, and qualified’ to enter these occupations. Enrollments and degrees earned by *U.S. citizen and lawful permanent resident students* in core STEM fields have skyrocketed to record levels. Note that nearly all (95%) bachelor’s degrees are earned by U.S. citizens and permanent residents,¹⁸ a figure that is consistent for STEM fields.¹⁹ **Figure A** below, showing bachelor’s degrees conferred in engineering, computer sciences, and life science since 1970, demonstrates that young Americans are interested in, and capable of, pursuing STEM occupations.

The labor certification process ensures that these bright young graduates—who number in the hundreds of thousands every year—have a fair opportunity to apply for jobs that they there are ‘able, willing, and qualified’ to fill.

FIGURE A

Bachelor's degrees conferred by U.S. postsecondary institutions in major STEM fields, for selected academic years, 1971-2022

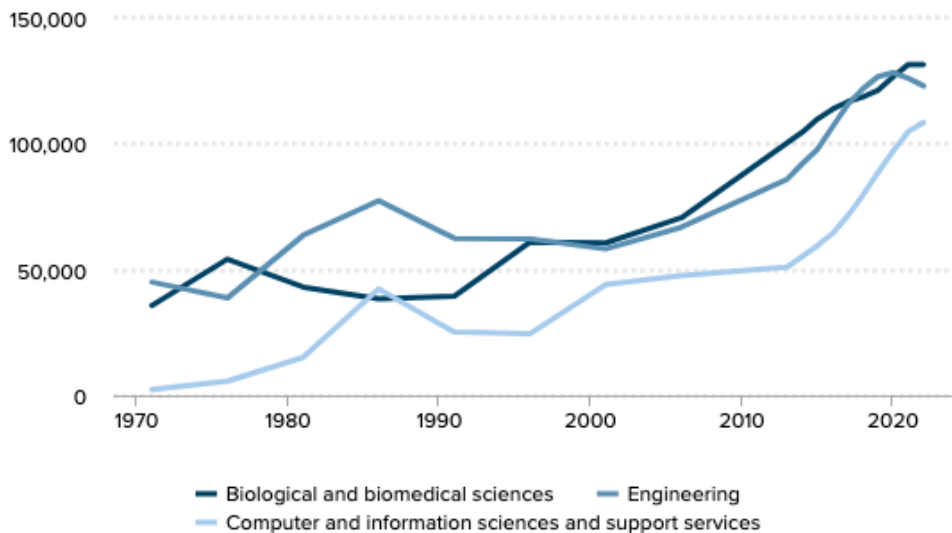


Chart Data

Source: U.S. Department of Education, Digest of Education Statistics, Table 322.10. Retrieved on May 12, 2024 at https://nces.ed.gov/programs/digest/d23/tables/dt23_322.10.asp

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¹⁸ National Center for Education Statistics, “[Table 322.30. Bachelor's degrees conferred by postsecondary institutions, by race/ethnicity and field of study: Academic years 2020-21 and 2021-22](#),” Digest of Education Statistics, accessed May 12, 2024.

¹⁹ U.S. citizens and lawful permanent residents accounted for 91% of engineering, 90% of computer sciences, and 97% of life science bachelor’s degrees in 2022 according to the U.S. Department of Education.

Funding and staffing at OFLC have not kept pace with increased workload, leading to backlogs and lengthy processing times

One of the main criticisms of DOL by employers and their associations with respect to permanent labor certifications—which is also likely to be driving their push to expand the list of occupations on Schedule A—is that the processing for PERM applications takes far too long. According to the Department’s page on processing times, as of May 1, 2024, the current average days it takes OFLC to process a PERM application is nearly 13 months, at 387 days, and the average number of days it takes to process an application with an audit review is roughly 15 and a half months (478 days).²⁰ There is no question that such wait times are unconscionable and far too long, complicating employers’ efforts to hire and retain workers from abroad, and lengthening the time that workers remain in the green card pipeline—the vast majority of whom are already employed in the United States on temporary visas—and must wait before they can adjust to lawful permanent residence, which grants them full labor and workplace rights and allows them to be freed of employer control over their immigration status. Therefore, the current long wait times at DOL are a legitimate concern being raised by employers and their representatives, and impact immigrant workers, too.

Expanding the list of occupations on the Schedule A list would undoubtedly reduce the workload at OFLC and therefore lead to faster processing times for the occupations that do not qualify for exemption from the labor certification process. However, such a choice comes at a great expense. Exempting more occupations from labor certification will also mean that U.S. workers will have fewer opportunities to apply for open positions in the United States. As discussed in this comment, the permanent labor certification process is an important component of the employment-based green card system—and while we agree that it needs improvements—it is nevertheless a mechanism that provides transparency for workers and the public and acts as a simple way for employers to prove that they are unable to find U.S. workers for their open positions. This imbues the program with at least some credibility, that shows U.S. workers that the Department is taking some actions to ensure that employers are recruiting and hiring from the U.S. workforce—rather than bypassing it entirely. Thus, as we have stressed herein, we believe the labor certification process is an essential mechanism that should not be done away with.

To the best of our knowledge, DOL has not identified nor addressed the factors that have led to the lengthy processing times and wait times for employers. A review of the available evidence shows that funding and staffing have not kept up with the increased workload at OFLC, which we presume is likely to be one of the main causes for the ever-increasing processing times.

Appropriations for OFLC: We reviewed DOL budget documents in order to obtain the annual amounts of funds appropriated by Congress for OFLC operations for the fiscal years of 2012 to 2023. We found that after adjusting for inflation, OFLC’s funding had declined by \$3.4 million dollars (in constant 2023 dollars), representing a decline of 3.9%.

Workload at OFLC: We also reviewed OFLC performance data to calculate the total annual workload at OFLC over the same period, to see whether it had increased and by what amount. We define workload

²⁰ Foreign Labor Application Gateway, “[Prevailing Wage Determination Processing Times, as of 05/01/2024](#),” U.S. Department of Labor (accessed May 11, 2024).

as the total number of jobs requested by employers for temporary labor certification in the H-2A, H-2B, and CW-1 visa programs, the total number of jobs requested in labor condition applications for the H-1B, H-1B1, and E-3 visa programs, as well as the total number of prevailing wage determination requests, and the total number of applications for permanent labor certification received, in each fiscal year counted (2012-2023). This total workload, as we define it, grew from 1.4 million in 2012, to 2.0 million in 2023. This represented an increase in workload of 49.1%.

Figure B shows the stark contrast between the decline in funding in real terms, at 3.9%, vs. the increase in workload from 2012 to 2023, at 49.1%.

FIGURE B

Office of Foreign Labor Certification funding has declined while workload increased significantly

Percent change in OFLC appropriations (\$2023) and OFLC workload, 2012–2023

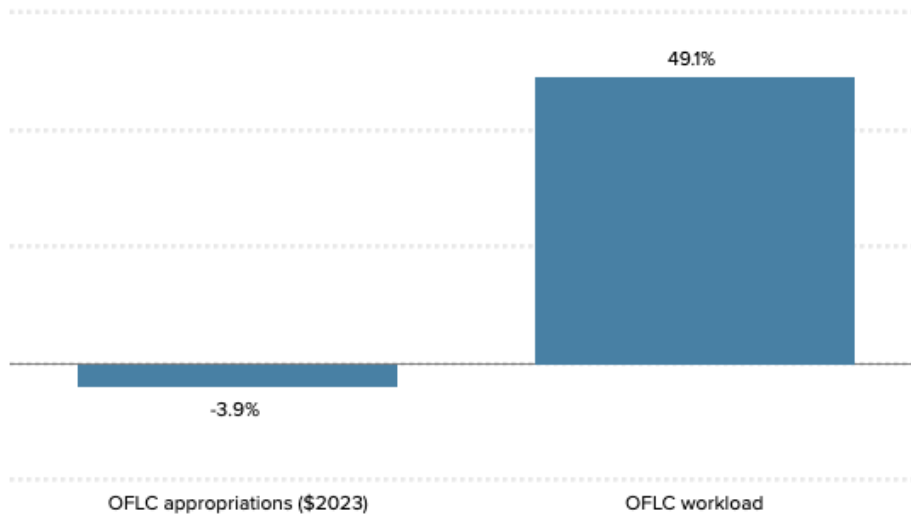


Chart Data

Notes: OFLC stands for the Office of Foreign Labor Certification, in the Employment and Training Administration, in the U.S. Department of Labor. OFLC workload includes the number of jobs requested by employers in the H-1B, H-2A, H-2B, H-1B1, E-3, and CW-1 visa programs, and the total number of prevailing wage determination requests, and the total number of applications for permanent labor certification received in each fiscal year counted. OFLC appropriations data for 2012 to 2023 is adjusted to \$2023 dollars using the CPI-URS. 2013 data for H-2B represent jobs certified, not requested (requests not available for 2013).

Source: OFLC budget data come from U.S. Department of Labor [budget documents for fiscal years 2012 to 2024](#), see Volume I, State Unemployment Insurance and Employment Service Operations, in each fiscal year. OFLC workload data come from Office of Foreign Labor Certification, [OFLC Performance Data](#), U.S. Department of Labor; see "Selected Statistics" documents for various years, for unavailable years, totals were derived by EPI analysis of downloadable disclosure data available on the page.

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Staffing levels: Next, we reviewed DOL budget documents to determine the staffing levels at OFLC over the same 2012-2023 period. As **Figure C** shows, OFLC had enough funds to employ 181 full-time-equivalent staff (FTE) in 2012, when their workload was at 1.4 million. The following fiscal year, the staff level increased to 183, but for the next six years, OFLC staffing decreased each year, reaching a low of 144 in 2019, when the workload stood at 1.8 million. Staffing increased slightly to 153 during the following two fiscal years, and then increased by 18 in 2022. Even after this increase, the number of staff at OFLC in 2022—when the workload was 2 million—had still not reached the level in 2012, when the workload was 1.4 million. In 2023, there was a significant increase in OFLC staffing, reaching 199, finally surpassing the 2012 level.

FIGURE C

OFLC staffing dropped sharply during the Obama and Trump administrations, likely resulting in current processing backlogs

OFLC full-time-equivalent staff, 2012–2023

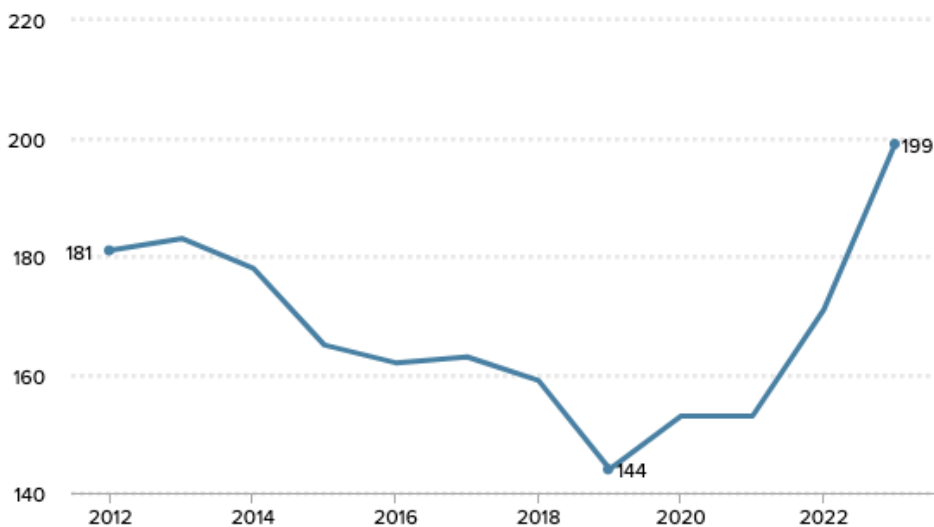


Chart Data

Notes: OFLC stands for the Office of Foreign Labor Certification, part of the Employment and Training Administration in the U.S. Department of Labor (DOL). OFLC is the office in DOL that is tasked with processing requests for temporary labor certifications and labor condition applications for certain classes of temporary work visas, and permanent labor certifications for certain employment-based green cards, as well as prevailing wage determinations.

Source: Data on FTE staff at OFLC come from U.S. Department of Labor [budget documents for fiscal years 2012 to 2024](#), see Volume I, State Unemployment Insurance and Employment Service Operations, in each fiscal year.

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As Figures A and B in this section show, despite the recent increase in staffing at OFLC, after roughly a decade of being underfunded and having far too few staff available to manage an increasing workload, it should be unsurprising that OFLC has not been able to keep up, which has led to long wait times and growing backlogs.

OFLC needs additional funding and staffing to process applications in a timely fashion

While funding for OFLC is set by Congress and questions about appropriations are not within the scope of this RFI, the reality is that the lack of adequate funding and staffing at OFLC cannot be divorced from the broader discussion about labor certification backlogs, wait times, and Schedule A. As discussed above, Congress has not appropriated enough funds for OFLC to keep up with their increasing workload, and unlike United States Citizenship and Immigration Services (USCIS), which mostly funds its adjudicatory responsibilities by charging processing fees to employers, OFLC does not charge fees to fund PERM application reviews—and thus cannot supplement its funding and staffing by increasing fees when justified.

We call on Congress to vastly increase annual appropriations for OFLC operations by 50% to 75%, so OFLC can keep up with the current workload and improve their scrutiny of every individual application, as well as increase processing speed for temporary and permanent labor certifications, prevailing wage determinations, and labor condition applications. If Congress will not appropriate the necessary funds, in the alternative, it should provide OFLC with legal authority to charge fees to employers that file PERM applications, at least enough to fund the requisite staffing needs to process the number of applications OFLC now receives.

The Department should also explore whether there is any existing legal authority that can be relied upon to allow OFLC to begin charging fees for permanent labor certifications, or perhaps at least to begin charging a premium processing fee, as USCIS does for certain petitions.

Expanding Schedule A occupations is a distraction that draws resources and attention away from the real issues facing the STEM workforce

Updating Schedule A is a solution in search of a problem. No person or entity—not the Department, not industry groups, not unions—has demonstrated that there are significant shortages in any specific occupation—even the ones currently on the Schedule A list—nor that the labor certification process is overly burdensome.

Employers and immigrant beneficiaries should expect timely adjudication of their permanent labor certifications. The Department can rightly be criticized for taking too much time to review applications, but the delays do not appear to have significant consequences, given that the vast majority of PERM applications are for workers who are employed and residing in the United States already on a temporary work visa (in 2019, only 16% of EB-1, EB-2, and EB-3 green cards were issued to newly arriving immigrants from abroad; in 2021, the total was 7%).²¹ As discussed above, the obvious solution to these delays is for the Department to

²¹ Office of Homeland Security Statistics, “[Table 7. Persons Obtaining Lawful Permanent Resident Status by Type and Detailed Class of Admission: Fiscal Year 2019](#),” in Yearbook of Immigration Statistics, 2019; and

allocate sufficient resources to speed up processing for those applications. Fix the process, instead of eliminating the process, and with it fix the basic and essential worker safeguards.

It's also important to note that a large share of Employment-Based (EB) immigrant petitions are already exempt from the labor certification requirements. The EB-1 preference category, so-called *Priority Workers*, accounted for approximately 28% of all EB applications in FY 2019.²² Plus, USCIS reports that 43% of EB-2 petitions received in FY2023 were filed with National Interest Waivers (NIW),²³ which allow the applicant to bypass the labor certification process.²⁴

The entry point that leads to an EB green card for most migrant workers is through one of the temporary programs, with H-1B, L-1, and F-1 students employed through Optional Practical Training (OPT), being the most common. But these programs have no effective worker protections. Temporary migrant workers are woefully underpaid due to poor governance by the Department, as we have showed in numerous publications for over two decades.²⁵ Proponents of the programs have justified the absence of worker protections, such as labor certification for temporary nonimmigrant work visa programs like H-1B and L-1, because they are intended to fill temporary positions and employers needed to utilize them quickly. But eliminating labor certification at the PERM stage through Schedule A expansion will mean that virtually no positions filled by college-educated migrant workers in U.S. temporary and permanent employment-based visa programs will ever be subjected to the basic scrutiny of a labor market test. Without a labor market test, U.S. workers and the public have no way of knowing if employers are truly facing a shortage of available and qualified workers, or if they are simply bypassing the U.S. workforce.

Furthermore, before moving forward with a process to add new occupations to the Schedule A list, the Department should study the labor market impacts of the occupations already on the list. How has the listing of professional nurses, for roughly three decades, impacted the pipeline for educating and training nurses and for the retention of nurses? While the narrative coming from hospitals and staffing firms is that there is a “shortage” of nurses, the reality is

[“Table 7. Persons Obtaining Lawful Permanent Resident Status by Type and Detailed Class of Admission: Fiscal Year 2021,”](#) in Yearbook of Immigration Statistics, 2021.

²² We cite 2019 data here because of volatile fluctuations in the number of EB green cards issued during the years immediately after the start of the Covid-19 public health emergency, which were impacted by shutdowns and slowdowns at USCIS and State Department consulates. See DHS Office of Homeland Security Statistics, [“Table 7. Persons Obtaining Lawful Permanent Resident Status by Type and Detailed Class of Admission: Fiscal Year 2019,”](#) in Yearbook of Immigration Statistics, 2019.

²³ United States Citizenship and Immigration Services, [“STEM-Related Petition Trends: EB-2 and O-1A Categories, FY 2018 - FY 2023,”](#) U.S. Department of Homeland Security.

²⁴ United States Citizenship and Immigration Services, [“Employment-Based Immigration: Second Preference EB-2”](#) U.S. Department of Homeland Security, last reviewed/updated April 20, 2022.

²⁵ See for example, Daniel Costa and Ron Hira, [H-1B visas and prevailing wage levels: A majority of H-1B employers—including major U.S. tech firms—use the program to pay migrant workers well below market wages](#), Economic Policy Institute, May 4, 2020; Ron Hira and Daniel Costa, [New evidence of widespread wage theft in the H-1B visa program: Corporate document reveals how tech firms ignore the law and systematically rob migrant workers](#), Economic Policy Institute, December 9, 2021.

that working conditions for nurses have deteriorated to such a disastrous level that nurses are leaving their jobs in droves. This creates the false appearance of a “labor shortage” in nursing, when the reality is that there is a severe shortage of decent working conditions and fair pay.²⁶

Rather than improving conditions for nurses, which would improve retention and attract more students into nursing schools—the response by the industry has been to hire nurses from abroad, often through staffing firms. While these firms recruit nurses via EB green cards, they regularly engage in exploitative practices, like charging tens of thousands of dollars in fees, and hire them through contracts that contain unconscionable provisions like breach fees for breaking the contract—even if they are employed in terrible conditions or with a lawbreaking employer—as well as noncompete clauses, which together act to bond nurses to their employers and staffing firms. If nurses leave these situations, employers and staffing firms have successfully sued immigrant nurses for breach of contract, leaving them on the hook for thousands of dollars in penalties. There are numerous media reports and lawsuits that have documented this reality.²⁷

Instead of expending precious resources and limited attention-span on a phantom problem, the Department should be focusing its efforts on ensuring that U.S. and foreign workers are adequately protected. There are well documented cases of widespread wage theft from H-1B and L-1 workers, and U.S. workers being replaced by employers paying lower wages to H-1B and L-1 workers hired through staffing firms.²⁸ As far as we know, the Department has done virtually nothing in the past decade and a half to combat this, despite being aware of these widespread abuses.

If the Department takes any action on labor certification, it should be to make it much more robust and effective in protecting the interests of U.S. workers by ensuring that qualified, able, and willing U.S. workers have a fair opportunity for jobs in the United States. The DOL/DOJ settlements on PERM manipulation with Meta and Apple underscore how the Department is inadequately administering the labor certification process. These are mass users of the PERM process that employ top law firms to manage and circumvent the process. The cases that have been publicized are the proverbial canary in the coalmine. Manipulating the process to exclude able, willing, and qualified U.S. workers is almost certainly a common practice, one that’s been laid bare in public since at least 2007, when Lawrence Lebowitz, an executive for leading

²⁶ See for example, American Federation of Teachers, [Healthcare Staffing Shortage Task Force Report](#), 2022; National Nurses United, [Protecting Our Front Line: Ending the Shortage of Good Nursing Jobs and the Industry-created Unsafe Staffing Crisis](#), December 2021.

²⁷ See for example, Josh Eidelson, [“Nurse ‘Trapped’ in Job Sues Over Contract That Punishes Quitter,”](#) *Bloomberg*, September 16, 2022; Josh Eidelson, [“Nurses Who Faced Lawsuits for Quitting Are Fighting Back,”](#) *Bloomberg*, February 2, 2022.

²⁸ See for example, Stef Kight, [“U.S. companies are forcing workers to train their own foreign replacements,”](#) *Axios*, December 29, 2019; Julia Preston, [“Pink Slips at Disney. But First, Training Foreign Replacements,”](#) *New York Times*, June 3, 2015; Julia Preston, [“Toys ‘R’ Us Brings Temporary Foreign Workers to U.S. to Move Jobs Overseas,”](#) *New York Times*, September 29, 2015; Michael Hiltzik, [“How the University of California Exploited a Visa Loophole to Move Tech Jobs to India,”](#) *Los Angeles Times*, January 6, 2017; Patrick Thibodeau, [“Southern California Edison IT Workers ‘Beyond Furious’ over H-1B Replacements,”](#) *Computerworld*, February 5, 2015.

immigration law firm Cohen-Grigsby, spelled out its objectives in gaming the PERM labor certification requirements:

*“Our goal here, of course, is to meet the requirements No. 1, but also do so as inexpensively as possible ... **and our goal is clearly not to find a qualified and interested U.S. worker,**” ... explains Lebowitz to seminar attendees.*

*“Were [sic] complying with the law fully, but our objective is to get this person a green card, and to **get through the labor certification process**, so certainly we are not going to try to find the place where the applicants are going to be the most numerous; **we’re going to try to find a place where, again, were complying with the law and hoping and likely not to find a qualified or interested worker applicant,**” continues Lebowitz.²⁹ (Emphasis added)*

This video went viral and caught the attention of leading lawmakers, yet the Department took no action to reform the labor certification process. Instead, the only action being proposed is to allow more employers to circumvent the labor certification process, based on evidence-free claims of a STEM “labor shortage” made by industry representatives.

The Department should require that employers hiring through the Schedule A list pay immigrant workers a wage that is higher than the local median wage for the occupation

As we discuss in multiple sections of this comment, rising wages and the wages offered in an occupation are a key—if not the primary—indicator of whether a shortage exists in an occupation. But our review of PERM disclosure data reveals that many of the jobs advertised for labor certification through PERM do not offer *market wages* for the occupation, making it unlikely that employers will ever attract U.S. workers for those positions.

As it has done for the H-1B temporary work program, the Department has set four wage levels for PERM occupations, Levels 1 through 4—which it does according to wage survey data from the Bureau of Labor Statistics’ OEWS survey. The Department has set the two lowest levels, Levels 1 and 2, at wages that are well below the local median wage for the occupation, at the 17th and 34th percentiles of the surveyed wages in a given occupation and location, respectively. The Level 1 wage is clearly near the bottom of the distribution, with 83% of workers in that occupation being paid more than the Level 1. The Level 3 wage is at the 50th percentile—in other words, the median wage—and Level 4 is at the 67th percentile, the only wage level that is higher than the median. While the wage level is intended to correspond to the worker’s education and experience required for the advertised position, in practice, the employer gets to choose the wage level and there is little government oversight to ensure the wage is appropriate and justified.

²⁹ Deb Perelman, “[Law Firms Video a Blatant Disregard for American Workers](#),” *eWeek*, June 25, 2007.

We believe that the median wage for an occupation in a local area reflects the minimum market rate that should be paid to a worker with an EB green card. That level is necessary to safeguard U.S. wage standards and ensure that immigrant workers are compensated fairly. By setting two of the four wage levels below the median—and thereby not requiring that firms pay at least market wages to workers with EB green cards—the Department has in effect made wage arbitrage a feature of the PERM system. Changing program rules to require and enforce at least median or above-median wages for workers with EB green cards, and requiring employers to advertise jobs at median or above-median wages, would disincentivize the hiring of EB workers as a money-saving exercise, ensuring that companies use the program as Congress intended—to bring in workers who have special skills not easily found in the U.S. labor force.

Our review of PERM disclosure data for FY23 found that out of 116,416 PERM labor certification applications that were certified in FY23,³⁰ close to one quarter of PERM jobs were advertised and set at the Level 1 wage (23.7%) and just over one quarter were at the Level 2 wage (25.4%). That means that roughly half of all jobs in the PERM labor certification system last year were advertised and set at wage rates below the local median wage for the occupation (49.1%).

Only 12.3% of certified PERM jobs were set at the Level 3 wage—the local median wage for the occupation—and 21.6% were set at the highest wage level, Level 4. There were also 5% of PERM certifications that have an unknown wage level, because they were listed as “N/A” for the wage level or that had a blank entry for the wage level.

This means that close to half of all jobs advertised through the PERM system are failing to effectively test the labor market because they are offering wages below the market rates. It also means that the immigrant workers who are ultimately hired with EB green cards have been offered, and will be paid, at wage levels that are below market rates; i.e., they will be demonstrably underpaid, putting downward pressure on wages and labor standards for all workers in the occupation.

The Department has the requisite legal authority to remedy this, as we have discussed in previous publications in the H-1B context and previous formal comments to the Department.³¹ We have two recommendations for the Department:

³⁰ Our analysis excluded PERM labor certification applications that were denied or withdrawn. Office of Foreign Labor Certification, [OFLC Performance Data](#), Employment and Training Administration, U.S. Department of Labor.

³¹ See for example, Daniel Costa and Ron Hira, [H-1B visas and prevailing wage levels: A majority of H-1B employers—including major U.S. tech firms—use the program to pay migrant workers well below market wages](#), Economic Policy Institute, May 4, 2020; Daniel Costa and Ron Hira, [“EPI comments on DOL Request for Information on determining prevailing wage levels for H-1B visas and permanent labor certifications for green cards,”](#) Economic Policy Institute, comments submitted to the Department of Labor on June 1, 2021 for the Department’s [Request for Information on Data Sources and Methods for Determining Prevailing Wage Levels for the Temporary and Permanent Employment of Certain Immigrants and Non-Immigrants in the United States](#), DOL Docket No. ETA-2021-0003, RIN: 1205-AC00.

(1) The Department should update and implement the prevailing wage methodology rule for PERM jobs, so that workers hired with EB green cards are paid a fair wage and employers are prevented from undercutting U.S. wage standards. All PERM jobs should be advertised at least at the local median wage, meaning at the Level 3 wage.

(2) For all jobs that qualify for Schedule A, whether on the current Schedule A list or on future iterations of the list, employers must pay the immigrant workers they hire at a wage level higher than the local median wage. Under the current prevailing wage structure, this would mean employers would have to offer and pay the immigrant workers hired through Schedule A at least the Level 4 wage, which is the 67th percentile of wages surveyed for the occupation in the local area. If the Department updates the wage levels and percentiles at some future date, the requirement should remain that the wage level used for Schedule A must be set at a percentile that is above the median—for example, at least 15 percentage points above the median. This action will protect the integrity of the labor market, ensuring that U.S. and immigrant workers are paid a fair wage.

We believe this to be reasonable and justified because the Schedule A list establishes that there is a shortage in an occupation, and provides a significant benefit to the employer, in that the employer is allowed to hire a worker with an EB green card without having to test the local labor market for available U.S. workers. Genuine shortages are solved by making the jobs sufficiently attractive—through increasing wages and improving working conditions—to induce additional labor supply. If employers are allowed to pay median and even below-median wages to immigrant workers employed in a “shortage” occupation, the shortages will become permanent.

Responses to specific questions in the RFI

1. Besides the OEWS, ACS, and CPS, what other appropriate sources of data are available that can be used to determine or forecast potential labor shortages for STEM occupations by occupation and geographic area?

Several technical challenges must be resolved before the agency can credibly identify occupational labor shortages.

There are no bright line boundaries between occupations, especially in STEM. Placing one occupation on the list will invariably encourage applicants for labor certifications to reclassify workers who are in adjacent, but unlisted, occupations, to fit them under the occupations listed on Schedule A. This is especially the case in computer occupations, which account for more than half of all employment in STEM occupations. What measures will, or can, the agency use to challenge an employer’s choice of occupational classification? The problem is further complicated by the fact that it is difficult to establish bright line skills and education requirements for workers filling those jobs. Many STEM occupations have no occupational licensing or registration requirement, unlike physicians or nurses, and workers from various educational backgrounds are hired into these positions.

The lack of occupational harmonization amongst the agency data sources is also a major problem. For example, the core data sources, CPS and OEWS, use different definitions for many STEM occupations, so BLS must publish an SOC to CPS Crosswalk to combine the data for analytic interpretation.³² But the crosswalk does not have a one-to-one mapping, creating significant problems in identifying labor shortages at the occupational level. For example, CPS's one *Electrical & Electronics Engineers* occupation is mapped to two possible SOCs used by OEWS: 17-2071 *Electrical Engineers* or 17-2072 *Electronics Engineers, Except Computer*. The two occupations often experience different business cycles, with the fate of 17-2071 typically tied to the electric utility industry cycle, whereas 17-2072's fate is tied more closely to the cycle for the electronics industry. The agency will have great difficulty disentangling the two very different labor markets of 17-2071 and 17-2072 since CPS combines their occupational data. CPS is the key source for unemployment rates and real-time employment levels so virtually every labor shortage formula must use it. But it is not uncommon for one of these occupations to be in recession while the other is at full employment, data that the CPS cannot provide or distinguish.

The problems with occupational definition boundaries are apparent throughout the CPS data. According to CPS data, fully 18% of Computer Occupations, or a whopping 1.2 million workers, are designated under the broad and vague definition of *Computer Occupations, All Other*. For engineering, the *Engineers, All Others* occupation, accounts for one-in-four (25%) of all engineers, numbering 670,000 workers. And the dataset discordance is on full display for these occupations.³³ The OEWS data claims that Computer Occupations, All Other accounts for nine percent (vs. 18%) of all Computer Occupations, and that Engineers, All Others accounts for nine percent (vs. 25%) of all Engineers. These discrepancies are large enough to wonder if the CPS and OEWS are measuring completely different labor markets.³⁴ Clearly, large numbers of Engineers, All Others in CPS are being classified as Mechanical or Aerospace Engineers, or some non-engineering occupation in OEWS.

Other technical challenges include time horizons, different labor market cycle frequencies, and limited sample sizes. The agency will need to consider that labor supply responsiveness to opportunities will vary across occupations, and that labor demand trends will be stable in some occupations but capricious in others. Many STEM occupations are small in employment size, so sample sizes for the major BLS data series will need to be greatly expanded for those occupations. And the agency has no sound measurement on the quality of working conditions at the occupational level.

Simply put, employing a simplistic algorithm or formula, even one based on multiple variables, to provide an automated list/delist decision will not work. Just as one example, the

³² U.S. Bureau of Labor Statistics, "[Classifications and Crosswalks](#)," Employment Projections, U.S. Department of Labor, last modified on September 6, 2023.

³³ U.S. Bureau of Labor Statistics, "[Table 11b. Employed persons by detailed occupation and age](#)," Household Data, Labor Force Statistics from the Current Population Survey, last modified on January 26, 2024.

³⁴ U.S. Bureau of Labor Statistics, "[May 2023 National Occupational Employment and Wage Estimates](#)," Occupational Employment and Wage Statistics, last modified on April 3, 2024.

unemployment rates that can establish whether an occupation is at full employment can vary greatly across STEM and even non-STEM occupations.³⁵ Comparing unemployment rate data reveals that the recession unemployment rate for software developers differs significantly from the recession unemployment rate for mechanical engineers. Thus, the Department must analyze and develop a substantive depth of knowledge for each unique occupation, and understand the dynamics in each, to understand where to set indicator thresholds. A robotic, one-size-fits-all formula cannot substitute for human judgement and interpretation. Our recommendation to develop occupational expertise as a key prerequisite to identify occupational shortages is in broad agreement with the approach and recommendations offered in the leading book on occupational shortages, *Occupational Labor Shortages: Concepts, Causes, Consequences, and Cures* by Barnow, Trutko, and Piatak.³⁶ Another example is a recently published BLS report analyzing truck driver shortages by examining an array of data, but also drawing from industry and occupational expertise.³⁷ Such analysis needs to be systemized across occupations.

To build out this occupational expertise, the Department will need to develop new and more detailed surveys, which are available much closer to real-time. In addition to the CPS, ACS, and OEWS, we suggest an approach that builds occupational expertise by surveying the key participants in the labor market, in occupations and industries: employers and trade associations, workers and unions, and labor market intermediaries such as recruitment and placement specialists.

Employers and Trade Associations:

The Department should develop a survey of employers and trade associations to collect their human resource workforce benchmark data such as offer-acceptance rates, time-to-hire, signing bonuses, days job remained unfilled, turnover, attrition, retention, etc. Such workforce benchmarks have become standard.

In addition, the survey of employers should include their workforce development and training investments, career paths and development in internal labor markets, recruitment efforts, etc.

We caution against the use of the government or private Job Openings data since it does not measure critical information such as recruitment effort.³⁸

Workers and Unions:

Most assessments of labor shortages rely heavily, even exclusively, on how employers view the market, but they rarely ask workers, job seekers, and unions for their perspectives. This is a major blind spot because it is ignoring the other key market participants. Surveys should be

³⁵ See discussion of occupational unemployment rates in Ron Hira, “[Is There Really a STEM Workforce Shortage?](#)” *Issues in Science and Technology*, Vol. XXXVIII, No. 4, Summer 2023.

³⁶ Burt S. Barnow, John Trutko, and Jaclyn Schede Piatak, *Occupational Labor Shortages: Concepts, Causes, Consequences, and Cures*, W.E. Upjohn Institute for Employment Research, January 1, 2013. /

³⁷ Steven V. Burks and Kristen Monaco, “[Is the U.S. labor market for truck drivers broken?](#)” *Monthly Labor Review*, U.S. Bureau of Labor Statistics, March 2019.

³⁸ Preston Mui, “[A Vacant Metric: Why Job Openings Are So Unreliable](#),” *Employ America*, August 31, 2022.

developed to ask workers, job seekers, and unions about their experiences with the labor market in each industry and occupation under consideration. Do they believe they can find another job easily? How long is it taking for them to find another job? What were their experiences applying for jobs? Do unions have information about employer recruitment efforts, pay, and industry practices?

Labor Market Intermediaries:

Finally, labor market intermediaries such as recruitment and placement specialists (aka headhunters) have a unique perspective on the clearing of labor markets, and the existence and causes of persistent disequilibria. Are there real supply shortages or have employers simply over-specified requirements? A survey of labor market intermediaries would add critical knowledge about the dynamics of the occupational labor markets. Most headhunters specialize in specific industrial sectors and occupations.

This information from stakeholders will complement the more top-down data and metrics like wages and unemployment rates, and give the Department real-world insights into what employers, workers, and unions are seeing in the occupation and across different regions. In fact, we believe that information gathered from these stakeholders is so important, that decisions about whether shortages exist should not be made without it.

In the United Kingdom, the Migration Advisory Committee (MAC) is a committee of labor market experts, supported by technical staff, which creates the U.K. government's shortage occupation list. When making a determination, the MAC reviews what it refers to as "top-down" data—e.g. unemployment rates, wages, etc.—but also interviews employers and unions and solicits information from them as part of its shortage determination methodology—which it refers to as "bottom-up" data. The information gathered in these interviews and submitted materials is often decisive in cases where the MAC has determined that there is a labor shortage. These data also help the MAC understand occupations at a more granular level, for example in cases where only some of the job titles within a broader occupation may have labor shortages. The MAC could determine, for example, that there's no shortage of secondary school teachers, but still determine that there is a shortage of secondary math teachers.

2. What methods are available that can be used alone, or in conjunction with other methods, to measure presence and severity of labor shortages for STEM occupations by occupation and geographic area?

Holistic price signals in the form of wages plus working conditions plus career advancement opportunities are the most important ways to measure the presence and severity of labor shortages. As Professor John Skrentny has so clearly documented, wages alone do not tell the whole story about STEM labor markets. Technology firms sometimes pay high wages but offer bad, "burn and churn," working conditions and poor job security.³⁹

³⁹ John Skrentny, [*Wasted Education: How We Fail Our Graduates in Science, Technology, Engineering, and Math*](#), University of Chicago Press, 2023.

Wages that are increasing much faster than the average of all other occupations, improving working conditions, increased hiring, expanding career opportunities, demonstrable increases in recruitment efforts, coupled with non-discriminatory employment practices, would be a reasonable first-order method for identifying the potential of a labor shortage. Occupations with large numbers of temporary contract workers, for example, would be a contraindicator suggesting a shortage does not exist.

While many other factors are important in addition to wages, we cannot stress the importance of strong wage growth as a key determinant. The overwhelming evidence does not point in the direction of the existence of shortages in STEM occupations: As we have both documented over the years, while some STEM occupations are higher-paying relative to most other occupations, the wages in most STEM occupations have either been stagnant—i.e., mostly flat in real terms—or even declined in real terms. Hira’s 2022 article for *Issues in Science and Technology* assesses the evidence on the STEM workforce, and notes the following with respect to wages:

Although nominal wages increased for all workers between 2016 and 2021, the rates of increase for major categories of STEM occupations lag those for management and professional occupations and for all full-time workers... after accounting for inflation, real wage growth was minimal or negative: real wages for computer and mathematical occupations declined by 0.4% over the five-year period.

...Only a few professions—medical scientists, chemists and material scientists, computer programmers, and physical scientists—saw both nominal and real wage growth exceed those of management and professional occupations and all full-time workers. Real wages declined for all types of engineers as well as for several other STEM occupations, including software developers, the largest and highest-skilled segment of computer occupations. While these remain high-wage occupations, those wages have stagnated or even declined. By contrast, accountants and auditors saw a modest increase in real wages of 1.2%, while lawyers gained more, with 3.3%—although both lagged wage gains for all workers.

These trends are not new. The Congressional Research Service analyzed STEM wages from 2008–2012 and again for 2012–2016, finding that although STEM wages grew slightly during those intervals, wage growth deviated little from the stagnant rate for all occupations. These wage data make it challenging to argue there are serious STEM worker shortages, a conclusion reinforced by other price signals; for example, companies are able to fill an increasing share of their technology workforce as lower paid contractors. If technology employers were facing shortages, they would broaden their talent pool, achieve much better workforce diversity outcomes, and invest large sums into workforce development.⁴⁰

⁴⁰ Ron Hira, “[Is There Really a STEM Workforce Shortage?](#)” *Issues in Science and Technology*, Vol. XXXVIII, No. 4, Summer 2023.

The CHIPS & Sciences Act has shined a spotlight on the semiconductor industry, which has claimed it faces major labor shortages now and into the future.⁴¹ But the available evidence shows that the core STEM occupation for the semiconductor industry—which is Electrical and Electronics Engineers—experienced real wage *losses* over the past few years. Between 2016 and 2023, real wages for Electrical and Electronics Engineers *declined* by a stunning 8% according to CPS data.⁴² This is particularly salient since Electrical and Electronics Engineers is one occupation the Institute for Progress (IFP) report—which has proposed a formulaic approach to expanding the Schedule A list—concluded should be *added* to Schedule A shortage occupation list.⁴³ The occupation also significantly underperformed its peer group, Professionals and Related Occupations, whose wages increased by 1%. Even over the shorter 2021-2023 time horizon, real wages for Electrical and Electronics Engineers *declined* by 2%. Apparently, IFP’s formula found that Electrical and Electronics Engineers were in shortage even though their wages were declining substantially, a judgement at odds with every reasonable and evidence-based theory about labor shortages.

Before the Department considers any occupation for inclusion on the Schedule A list, it must first confirm that there has been strong wage growth in the occupation over a sustained period. Technologies, and technology fads, often rise and fall rapidly. Genuine shortages are almost always accompanied by strong wage growth, but the converse is not true. Wage growth might not indicate shortages. A deeper analysis is necessary to establish a genuine shortage. Price signals accompanied by a deep analysis of the occupation as described in our answer to question #1 above, should be used to determine whether there is a persistent shortage and whether it should be added to Schedule A.

And as noted above, interviews with employers, workers, and unions, are an essential indicator that must be a part of any shortage determination undertaken by the Department.

3. How could the Department establish a reliable, objective, and transparent methodology for identifying STEM occupations with significant shortages of workers that should be added to Schedule A?

While we remain skeptical of the Department’s consideration of expanding the Schedule A shortage occupation list, we nevertheless applaud the Department’s efforts to inquire about how to improve labor market data and their interpretations, including how to develop a reliable methodology for identifying conditions in specific industries in occupations, which may include labor shortages. The U.S. government should improve data collection and quality

⁴¹ Semiconductor Industry Association, “[America Faces Significant Shortage of Tech Workers in Semiconductor Industry and Throughout U.S. Economy](#),” Latest News, July 25, 2023.

⁴² U.S. Bureau of Labor Statistics, “Table 39. Median weekly earnings of full-time wage and salary workers by detailed occupation and sex,” Labor Force Statistics from the Current Population Survey, data for [2023](#) and [2016](#). Inflation is calculated from Consumer Price Index for All Urban Consumers Retrieved from: <https://fred.stlouisfed.org/graph/?id=CPIAUCSL,CORESTICKM159SFRBATL>.

⁴³ Lindsay Milliken, Jeremy Neufeld, and Greg Wright, [Help Wanted: Modernizing the Schedule A Shortage Occupation List: A new data-driven method to identify gaps in the labor market](#), Institute for Policy, December 14, 2023.

and develop transparent methodologies to assess shortages; doing so would greatly inform the public and labor market and immigration policies.

When it comes to labor shortage determinations, however, we believe they must be done in an even-handed way with the understanding that interpretations about shortages always involve judgement calls that must understand the links between immigration and other public policies, and fairly balance the tradeoffs that are inherent in deciding whether to increase immigration levels. For example, when the MAC determines that a shortage exists in the U.K. labor market, the occupation does not automatically get added to the shortage occupation list. The MAC first considers whether increasing immigration for an occupation is “sensible.”

Whether it is sensible to add an occupation to the shortage list can depend on the feasibility of other avenues to resolve the shortage. If employers have increased education and training requirements for an occupation, but not raised wages in tandem, that creates the recipe for a labor shortage. In such a case, raising wages in the occupation to recruit more higher-skilled workers may be a more sensible option, rather than placing the occupation on the shortage list to facilitate increased immigration for it. In cases where other options to immigration, such as raising wages or increasing employer-provided training might not be as feasible to resolve a shortage—the tradeoffs should be discussed and considered in a transparent fashion that can be assessed by the public and policymakers.⁴⁴ If the U.S. government had a MAC-like committee, the committee could explain why immigration is the best approach to addressing a shortage in a particular occupation, and make recommendations for how domestic labor could be better utilized in the future.

We therefore believe that a commission model would greatly improve the ability of the U.S. government to adequately assess shortages. And while we acknowledged that it is beyond the scope of this RFI—we wish to note that we believe Congress should create an independent commission on immigration and the labor market, to ensure that the judgement is deliberate, judicious, transparent, and has legitimacy. Such a committee would be a high-level body staffed by expert researchers with integrity and technical competence, and who are tasked with studying immigration and the labor market and providing timely and reliable data and analysis to policymakers and the public. It could also be comprised of a balanced representation of stakeholder groups that is staffed by technical experts. The decisions and their rationales should be made public with all data coming from non-proprietary sources. The commission could work to develop much better measures of labor market shortages, assessment methodologies, and processes to efficiently adjust migrant worker flows to match employers’ needs while protecting U.S. labor standards.⁴⁵ The commission could also set employment-based immigration quotas and temporary work visa program quotas based on available labor market evidence. And importantly, we believe the commission should spend its first three to five years on improving data sources and collection and developing its

⁴⁴ For more background, see Martin Ruhs and Philip Martin, “[On migration, the US should copy the UK](#),” *Financial Times*, February 13, 2013; Daniel Costa and Philip Martin, [Temporary labor migration programs: Governance, migrant worker rights, and recommendations for the U.N. Global Compact for Migration](#), Economic Policy Institute, August 1, 2018.

⁴⁵ For more discussion, see for example, Ray Marshall and Ross Eisenbrey, “[Commission Needed to Solve Immigration](#),” *The Hill*, June 10, 2010.

shortage methodology, and soliciting input from the public and stakeholders like employers and unions.

As noted above, the commission would consider the many tradeoffs inherent in immigration policymaking in its recommendations, but Congress would ultimately decide which policies to adopt or reject. But basing quotas on evidence and data would have the effect of depoliticizing the process of setting numbers and shortage occupations and provide an evidence base for decisions that can be inspected by all.

In addition to EPI, a number of bipartisan groups and research institutes have called for an independent commission on employment-based migration or some version of it, including The Independent Task Force on Immigration and America's Future (co-chaired by Lee Hamilton and Spencer Abraham), the Council on Foreign Relations' Independent Task Force on U.S. Immigration Policy (co-chaired by Jeb Bush and Thomas McLarty III), the Brookings-Duke Immigration Policy Roundtable, the Brookings Institution, and the Migration Policy Institute. Versions of a commission have been introduced multiple times in proposed legislation and should be considered again, either as a standalone proposal or as a component of a broader immigration reforms.

While Congress would have to act for this version of a commission, the Department could consider whether the executive branch has the authority to create its own version of a commission, by hiring new technical experts and/or by creating a representative group of stakeholders, which could be convened by the Department.

We also believe that employer groups and trade associations should welcome this proposal. When former U.S. Secretary of Labor and EPI cofounder Ray Marshall proposed the creation of an independent commission in 2009, it generated opposition from representatives of the business community who feared that it would not reach the "correct" recommendations on the need for foreign workers.⁴⁶ Marshall's commission idea was attacked by those who felt more comfortable persuading Congress through lobbying to adjust annual numerical limits for employment-based migration via legislation rather than trusting an expert commission to analyze data and make recommendations on shortages and the annual number of migrant workers to admit.

But the reality today is that the top-down indicators for STEM occupations—especially wages—are unlikely to establish that shortages exist, as industry representatives are hoping. In fact, top-down analysis of labor market indicators requires definitions, and reasonable definitions find few shortages. For example, Veneri defined a labor-shortage occupation as one in which employment increased at least 50% faster than the average of all occupations, wages rose at least 30% faster than average, and the occupation in question had an unemployment rate of at least 30% below average.⁴⁷

⁴⁶ Michele Waslin, "[Hammering Out Future Immigration Flows: Immigration Commissions in Context.](#)" *Immigration Impact* (blog of the American Immigration Council), May 24, 2010.

⁴⁷ Carolyn Veneri, "[Can Occupational Labor Shortages Be Identified Using Available Data?](#)" *Monthly Labor Review* 122, no. 3: 15–21, 1999.

Veneri’s analysis found few labor-shortage occupations in the United States at the height of the 1990s economic boom: the 50+30+30 test was satisfied by seven of 62 occupations between 1992 and 1997. In only one occupation, special education instruction, were there both top-down and bottom-up indicators of shortages, which were attributed to court decisions requiring school districts to quickly expand services to special-needs students. Notably, computer-related occupations did not satisfy the 50+30+30 test despite rapid employment growth and low unemployment rates because earnings in computer occupations did not rise 30% faster than overall earnings. Most STEM occupations today would not meet Veneri’s reasonable test to establish a shortage because most are not in fact, experiencing a shortage.

Finally, for this question/section, we wish to call attention to the December 2023 report published by the Institute for Policy (IFP), which we reference in our answer to the previous question, titled, *Help Wanted: Modernizing the Schedule A Shortage Occupation List*.⁴⁸ The report purports to propose “a transparent, objective, and data-driven method by which the Department of Labor (DOL) can regularly update the Schedule A shortage occupation list.” The authors propose indicators and a methodology that draws heavily from the MAC’s methodology for top-down indicators, and also create a model that closely resembles the MAC’s methodology. They have also created an online tool that allows anyone to “Create Your Own Data-Driven Update to Schedule A,” by deciding an unemployment rate threshold for establishing a shortage in an occupation and setting the relative weights of ten top-down labor market indicators.⁴⁹

We greatly appreciate the effort made by the authors to engage in a discussion about labor shortages in a way that is data-driven and grapples with available labor market data and possible indicators and weights that could be utilized to determine a labor shortage. However, their report has three obvious flaws, which we believe should serve as caveats if the Department is considering crafting an algorithm along these lines.

First, as the report suggests, and as any manipulation of IFP’s accompanying data tool shows, there are wild fluctuations in the occupations that result as shortage occupations based on even the most minute changes to the unemployment rate and the weight of the available indicators. The fact that minor changes in one or two indicators can dramatically change the occupations that are appraised to be experiencing a “shortage” means that the indicators and weights that are selected will have outsized importance, despite being somewhat arbitrary. The malleability of a tool like this—if adopted—would also be a concern because it is likely to be easily susceptible to manipulation, depending on which occupations the people in charge are hoping will result.

Second, as we have already noted above, the data available to the Department for determining a shortage are far too old and out of date to credibly establish a current and/or future

⁴⁸ Lindsay Milliken, Jeremy Neufeld, and Greg Wright, [*Help Wanted: Modernizing the Schedule A Shortage Occupation List: A new data-driven method to identify gaps in the labor market*](#), Institute for Policy, December 14, 2023.

⁴⁹ Lindsay Milliken, Jeremy Neufeld, and Greg Wright, “[Create Your Own Data-Driven Update to Schedule A](#),” Institute for Policy [online tool], January 25, 2024.

shortage; the IFP report proves our point. The report was published in late 2023, just two weeks before the start of 2024; yet, the most recent data available for the unemployment rates and indicators were for 2021. The labor market in 2024 is vastly different than it was in 2021, when the economy was climbing out of the depths of the recession created by the Covid-19 pandemic and public health emergency. If the best data available to determine shortages is already more than two years out of date, it cannot credibly be relied upon to determine if a current shortage exists in an occupation. That's why, as we have noted, the Department and/or a future commission should spend at least three to five years improving data and surveys and designing a methodology that is credible, transparent, and that the public has had an opportunity to provide input on.

And finally, while the IFP's report and methodology derives heavily from the MAC's, the IFP authors completely ignore and omit any discussion about the MAC's bottom-up indicators—i.e., interviews with employers and unions—undermining the IFP's proposed methodology. As we've noted, the interviews with employers and unions that provide essential context to the MAC on the dynamics and realities in particular industries and occupations, is often the deciding factor when the MAC had determined there to be a shortage in an occupation. The fact that the authors do not even make a passing mention of this element of the MAC's shortage determination—arguably the most important element—suggests the authors wish to avoid input from the public and stakeholders and would prefer to have a purely mechanical algorithm determining if a labor shortage exists. They seem to believe this despite the fact that an algorithm would ignore the important realities and nuances that can only be gained through discussions and surveys with key stakeholders like employers, unions, and workers, as well as the submission and review of key pieces of evidence to substantiate the claims made in direct talks and surveys.

4. Should the STEM occupations potentially added to Schedule A be limited to those OEWS occupations used in most of the recent BLS publications, or should the STEM occupations be expanded to include additional occupations that cover STW occupations?

We recommend that STW jobs not be added for consideration to Schedule A. STW jobs generally require far less formal training and adding them to the list would undermine the Department's efforts at expanding Registered Apprenticeships. Given the short timeframe for training, there is little reason that these jobs cannot be filled through recruiting workers from the domestic labor force.

5. Beyond the parameters discussed for STW occupations, should the Department expand Schedule A to include other non-STEM occupations? If so, what should the Department consider to establish a reliable, objective, and transparent methodology for identifying non-STEM occupations with a significant shortage of workers that should be added to or removed from Schedule A?

In principle, there is no reason to limit the consideration to STEM occupations. However, our same criticisms and arguments against expanding Schedule A for STEM occupations applies for non-STEM occupations. Each industry and occupation is unique, adequate data are not available and not available in a timely fashion, employers and workers should be consulted in each case that is being considered, and a body of experts should ultimately decide on whether an occupation should be added to the Schedule A list, after weighing multiple factors and tradeoffs. Getting the data and the system reformed sufficiently enough to allow for this to occur will take many years, thus we do not believe that the Department should add any occupations to the Schedule A list in the near- or medium- term.

Conclusion

We urge the Department to resist the pressure from industry and STEM employers and their representatives to expand the Schedule A list when there is so clearly a lack of evidence of shortages in STEM fields. Instead, we urge the Department to focus efforts on improving the PERM labor certification process and protecting against firms that game the system by violating program rules in order to bypass STEM workers already residing in the United States—including U.S. citizens and permanent residents, and persons with DACA and other forms of work authorization. The Department should also focus its efforts on protecting the immigrant workers who are recruited and hired through Schedule A, such as the many nurses who have been recruited through EB green cards, only to arrive to be employed in exploitative conditions because of unscrupulous employers and staffing firms that restrict their workplace and labor rights through contracts that result in de facto indentured servitude.

Once again, we would like to thank the Department and administration for the opportunity to comment, and hope that you take our comments into consideration as you examine this matter.

Sincerely,

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