

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

DOMINGO ARREGUIN GOMEZ, et al.,

Plaintiffs,

v.

DONALD J. TRUMP, President of the United
States of America et al.,

Defendants.

Civil Action No. 1:20-cv-01419

DECLARATION OF CHAD SPARBER

I, **Chad Sparber**, hereby submit this declaration pursuant to 28 U.S.C. § 1746 and declare as follows:

1. I am the W. Bradford Wiley Chair in International Economics at Colgate University. My research focuses on the causes and consequences of U.S. immigration. I have a Ph.D. in economics from the University of California – Davis and a B.A. in economics from Western Washington University.

2. I have published numerous papers in respected peer-reviewed publications such as the *Review of Economics and Statistics*, the *American Economic Journal: Applied Economics*, *European Economic Review*, the *Journal of Labor Economics*, the *Journal of Urban Economics*, and the *Journal of Development Economics*, and my published body of work has been cited thousands of times by other researchers.

3. Since 2009, I have been an external Research Fellow at the Centre for Research and Analysis of Migration at University College London. In addition, I have been a Research Fellow at the IZA Institute of Labor Economics since 2017.

4. I am familiar with Presidential Proclamation 10014, signed by President Trump on April 22, 2020, (the “April Proclamation”) and Presidential Proclamation 10052, signed by President Trump on June 22, 2020, as amended by Presidential Proclamation 10054, signed by President Trump on June 29, 2020 (the “June Proclamation,” and together with the April Proclamation, the “Proclamations”).

5. The June Proclamation states that “under the extraordinary circumstances of the economic contraction resulting from the COVID-19 outbreak, certain nonimmigrant visa programs authorizing such employment pose an unusual threat to the employment of American workers.” This view is flatly contradicted by well-established economic research. In fact, my own research over the years demonstrates that restrictions on foreign workers, especially high-skilled professionals such as those who enter the United States on H-1B and L-1 visas, will reduce long-term economic growth while failing to increase the employment of Americans.

6. My research on the highly skilled workers who work in the United States under the H-1B program, for example, shows that the suspension of H-1B visas will ultimately have a significant negative impact on the American economy.¹ The H-1B program allows high-skilled foreign-born workers in specialty occupations to work temporarily in the United States. Although the H-1B program is quite small—fewer than 139,000 new H-1B petitions were approved in 2019²—these

¹ See e.g., Giovanni Peri & Chad Sparber, *Presidential Executive Actions Halting High Skilled Immigration Hurt the US Economy*, Global Migration Center (July 2020), <https://globalmigration.ucdavis.edu/presidential-executive-actions-halting-high-skilled-immigration-hurt-us-economy>; Giovanni Peri, Kevin Shih, & Chad Sparber, *STEM Workers, H-1B Visas, and Productivity in US Cities*, 33 J. OF LAB. ECON. S225 (2015), <http://giovanniperi.ucdavis.edu/uploads/5/6/8/2/56826033/stem-workers.pdf>; see also Nat’l Acad. Of Scis., Eng’g., & Med., *The Economic and Fiscal Consequences of Immigration* (The National Academies Press 2017), <https://www.nap.edu/read/23550/chapter/9>.

² U.S. Dep’t of Homeland Sec., *Characteristics of H-1B Specialty Occupation Workers*, (Mar. 2020),

workers contribute in outsize ways. They are largely concentrated in science, technology, engineering, and mathematics (STEM) fields such as computer science³—areas that are fundamental drivers of economic growth.⁴ The accepted consensus of economists and social scientists is that the infusion of human capital provided by high-skilled immigrants, such as those admitted through the H-1B program, has boosted the nation’s capacity for innovation and technological change.⁵ Research has shown, for example, that a one percentage point rise in the share of immigrant college graduates in the population increased patents per capita by 9-18 percent and accounted for up to a third of the growth in patenting per capita during the 1990s.⁶ These high-skilled workers contribute to human and physical capital formation, entrepreneurship, and innovation, all of which are essential to long-run sustained economic growth.⁷

https://www.uscis.gov/sites/default/files/document/reports/Characteristics_of_Specialty_Occupation_Workers_H-1B_Fiscal_Year_2019.pdf.

³ *Id.*

⁴ Peri, Shih, & Sparber, *supra* note 1,; *see also* Giovanni Peri & Chad Sparber, *Highly Educated Immigrants and Native Occupational Choice*, 50 *Indus. Rel.: A J. OF ECON. & SOC.* 385 (2011) [hereinafter Peri & Sparber, *Highly Educated*], https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1874552; Zvi Griliches, *The Search for R&D Spillovers*, 94 *Scandinavian J. of Econ.* S29 (1992); *see also* Charles I. Jones, *Sources of U.S. economic growth in a world of ideas*, 92 *AM. ECON. REV.* 220, <https://pubs.aeaweb.org/doi/pdfplus/10.1257/000282802760015685> (estimating that 50 percent of U.S. total factor productivity growth in recent decades is attributable to science engineers).

⁵ Nat’l Acad. Of Scis., Eng’g., & Med., *supra* note 1.

⁶ Jennifer Hunt & Marjolaine Gauthier-Loiselle, *How Much Does Immigration Boost Innovation?*, 2 *AM. ECON. J.* 31 (2010), <https://pubs.aeaweb.org/doi/pdfplus/10.1257/mac.2.2.31>.

⁷ Peri, Shih, & Sparber, *supra* note 1 (noting that “when considered as a source of technological innovation, foreign STEM workers may credibly generate large productivity and wage increases.”).

7. These same observations would also apply to the L-1 visa program, which (like the H-1B program) enables professional, highly skilled workers with specialized knowledge of their sponsoring employers' businesses or products to transfer from overseas offices to offices in the United States. Like H-1Bs, L-1 workers are highly educated, highly skilled professionals who tend to have a positive impact on the United States job market because they provide critical on-the-ground leadership for multinational employers seeking to invest in their U.S. affiliates. They are already employed and on the payrolls of their companies while working overseas, and they are coming to the United States to enhance the productivity of their company's U.S. operations and workers.

8. Economic research establishes that foreign-born workers are, on average, more likely to innovate and start new businesses than native-born workers.⁸ Between 1976 and 2012, for instance, immigrant inventors produced roughly 23 percent of all patents—more than a 40 percent increase relative to their share of the U.S.-based inventor population—and generated 25 percent of the aggregate economic value created by patents produced by publicly traded companies—an increase of 47 percent relative to their share of the inventor population working in publicly traded companies.⁹ Highly skilled immigrants who come to the United States are

⁸ Hunt & Gauthier-Loiselle, *supra* note 6, at 31 (finding that immigrants patent at double the rate of native-born Americans because they are more likely to hold science and engineering degrees); Hunt (2011, 2015); Peri, Shih and Sparber, *supra* note 1; William Kerr & William F. Lincoln, *The Supply Side of Innovation: H-1B Visa Reforms and U.S. Ethnic Invention*, 28 J. OF LAB. ECON. 473 (2010) (finding that a 10 percent increase in the employment of H-1B workers is associated with 3 percent higher growth in patenting rates for H-1B dependent firms).

⁹ Shar Bernstein, Rebecca Diamond, Timothy James McQuade, & Beatriz Pousada, *The Contribution of High-Skilled Immigrants to Innovation in the United States*, Stanford Graduate School of Business, <https://www.gsb.stanford.edu/faculty-research/working-papers/contribution-high-skilled-immigrants-innovation-united-states> (finding that 30 percent of total U.S. innovative output can be ascribed to immigrants).

economically driven and comfortable with taking risks.¹⁰ The requirements of the United States' visa programs constrain who is eligible, consistent with the design of these programs to facilitate the entry of workers with skills useful to the United States economy. And with respect to the H-1B program specifically, U.S. companies and employers who seek to hire highly-skilled specialty workers necessarily engage in a highly selective process, seeking out foreign workers to enter the country and contribute their specialized skills to specific business needs. Their contributions to the United States' universities, companies, and laboratories, in the form of innovation and diversity of perspective and experience, ultimately boost the U.S. economy.¹¹

9. Well-established economic research also shows that the entry of highly-skilled foreign-born workers allows the United States to produce, innovate, and grow at a faster rate because of important differences in the occupations, college majors, and skill specialization between native and foreign workers.¹² Multiple well-respected papers demonstrate that among high-skilled workers, foreign-born workers tend to specialize in quantitative skills and STEM fields, whereas

¹⁰ David Jaeger et al., *Direct Evidence on Risk Attitudes and Migration*, 92 Rev of Econ. and Stats. 684 (2010); Massimo Anelli, Gaetano Basso, Giuseppe Ippedico, & Giovanni Peri, *Does Immigration Drain Entrepreneurs?*, IZA Inst. of Lab. Econ. (2020), <http://ftp.iza.org/dp13390.pdf>.

¹¹ Bernstein, *supra* note 9 (finding that despite immigrants only making up 16 percent of inventors, they are responsible for 30 percent of aggregate U.S. innovation since 1976, with their indirect spillover effects, such as accounting for more than twice their direct productivity contribution).

¹² See Peri & Sparber, *Highly Educated*, *supra* note 4; Pia M. Orrenius & Madeline Zavodny, *Does Immigration affect whether U.S. natives major in science and engineering?*, 33 J. OF LAB. ECON. S79 (2015), <https://www.journals.uchicago.edu/doi/10.1086/676660>; Kevin Shih, *Labor Market Openness, H-1B Visa Policy, and the Scale of International Student Enrollment in the US*, 54 Econ. Inquiry 121 (2016); Kevin Shih, *Do international students crowd-out or cross-subsidize Americans in higher education?*, 156 J. of Pub. Econ. 170 (2017); Marigee Bacolod & Marcos A. Rangel, *Economic Assimilation and Skill Acquisition: Evidence From the Occupational Sorting of Childhood Immigrants*, 54 Demography 571 (2017); Gary C. Lin, *High-Skilled Immigration and Native Task Specialization in U.S. Cities*, 77 REGIONAL SCI. & URBAN ECON. 289.

native-born workers specialize in communication and social skills.¹³ Visa programs for highly-skilled workers enrich the set of available skills in the United States, which in turn is associated with greater productivity and innovation potential.

10. As a counterpoint, research examining prior H-1B restrictions shows that a reduction in H-1B workers has a direct negative impact on the economy. Some of my recent research, for instance, shows that when the fiscal-year cap of 195,000 H-1B workers expired and reverted to 65,000 H-1B workers in 2004, per the American Competitiveness in the 21st Century Act, the employment of such workers declined 16 to 26 percent relative to what would have occurred if business demand, rather than a legislative limit, determined hiring outcomes.¹⁴ These declines, moreover, were concentrated at the ends of the wage distribution, which is most troubling at the high end: it implies that H-1B restrictions particularly hindered the employment of the highest ability foreign-born workers.¹⁵ My ongoing research is finding that employers using the H-1B program have experienced reduced total employment, sales, profits, market value, and research

¹³ Peri, Shih, & Sparber, *supra* note 1; Giovanni Peri, Kevin Shih, & Chad Sparber, *Foreign and Native Skilled Workers: What Can We Learn from H-1B Lotteries?* (Nat'l Bureau of Econ. Research, Working Paper No. No. 21175, 2015); *see also, e.g.*, Peri & Sparber, Highly Educated, *supra* note 4 (finding that when the foreign-born proportion of highly educated employment within an occupation rises, native employees with graduate degrees choose new occupations with less analytical and more communicative content); Peri & Sparber, *Task Specialization, Immigration & Wages*, 1 AM. ECON. J.: APPLIED ECON. 135 (2009) [hereinafter Peri & Sparber, *Immigration & Wages*] (finding, based on four decades of decennial census data, that a one percentage-point increase in the foreign-born share of less-educated workers is associated with a 0.34 percent increase in the relative supply of communication versus manual tasks among native-born workers).

¹⁴ Anna Maria Mayda, Franscesc Ortega, Giovanni Peri, Kevin Shih, & Chad Sparber, *The Effect of the H-1B Quota on Employment and Selection of Foreign-Born Labor*, 108 EUR. ECON. REV. 105 (2018).

¹⁵ *Id.*

and development compared to non-users since 2014 due to tight rationing of the H-1B program and lottery allocation of H-1B status.

11. Moreover, contrary to the Proclamation's statement that foreign-born workers displace and disadvantage U.S. workers, the vast majority of peer-reviewed economics research does not find systematic job displacement following the inflow of highly skilled foreign workers.¹⁶ Indeed, nearly all of the relevant research of which I am aware demonstrates that foreign-born workers, especially the highly skilled ones permitted entry through the H-1B and L-1 visas, generate local opportunities for firms and United States workers that do not translate into a decline in United States employment or wages.¹⁷ In 2015, for example, based on a study period of 1980 to 2010, I found that a rise in foreign-born STEM workers by 1 percentage point of a city's total employment increased the real wages of college-educated natives by 7 to 8 percent and those of non-college-educated natives by 3 to 4 percent.¹⁸ The literature reflects that the observed skill differences and complementarities between native-born and foreign-born workers are a key reason for this phenomenon.¹⁹ Most, if not all, of the papers that do find displacement

¹⁶ See, e.g., Gianmarco Ottaviano & Giovanni Peri, *Rethinking The Effect Of Immigration On Wages*, 10 J. of the Eur. Econ. Assoc. 152 tbl.6 (2012), <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1542-4774.2011.01052.x>; Peri & Sparber, *Immigration & Wages*, *supra* note 13.

¹⁷ Ottaviano & Peri, *supra* note 16; Peri & Sparber, *Immigration & Wages*, *supra* note 13; Nat'l Acad. Of Scis., Eng'g., & Med., *supra* note 1.

¹⁸ Peri, Shih, & Sparber, *supra* note 1. During the study period of 1980 to 2010, college-educated STEM workers grew from 2.4 percent of total employment to 3.2 percent over the period, and foreign-born workers were responsible for more than 80 percent of this growth. *Id.*

¹⁹ Peri & Sparber, *Immigration & Wages*, *supra* note 13; Peri & Sparber, *Highly Educated*, *supra* note 4; Giovanni Peri, Kevin Shih, & Chad Sparber, *Foreign STEM Workers and Native Wages and Employment in US Cities*, Nat'l Bureau of Econ. Res (2014).

effects use small datasets and/or analyze very narrowly defined and specialized labor markets. This type of work underestimates system-wide general equilibrium effects. That is, they do not reflect how immigration affects broader populations or the economy as a whole.²⁰

12. Innovation carried out by foreign-born workers also serves to increase the productivity of the American workforce, raising economic growth. This is because foreign nationals who work in specialties such as science and engineering who come work on H-1B status create new technologies that generate positive production externalities and are responsible for half of long-run productivity growth in the United States.²¹ Research has established, for instance, immigrants account for 30 percent of the total U.S. innovation over the past four decades, 73 percent of which is due to immigrants' indirect impacts on raising the innovation output of native inventors.²² The growth fueled by highly skilled foreign-born workers is crucial to enhancing income per capita and wages, and hence for sustaining better conditions for large parts of the United States economy. Numerous empirical studies have validated the point that high-skilled foreign-born workers are responsible for a large share of United States economic growth because

²⁰ See, e.g., George Borjas & Kirk Doran, *The Collapse of the Soviet Union and the Productivity of American Mathematicians*, HKS Faculty Research Working Paper Series RWP12-004, John F. Kennedy School of Gov't, Harvard Univ. (2012) (finding that an influx of approximately 336 Soviet mathematicians after the fall of the Soviet Union displaced some U.S. mathematicians); Kirk Doran, Alexander Gelber & Adam Isen, *The Effects of High-Skilled Immigration Policy on Firms: Evidence from H-1B Visa Lotteries*, (Nat'l Bureau of Econ. Research, Working Paper No. 20668, 2014) (finding displacement effects based on a very small dataset from the H-1B lotteries during the onset of the recession in 2006 and 2007).

²¹ Jones, *supra* note 2; Nat'l Acad. Of Scis., Eng'g., & Med., *supra* note 1.

²² Bernstein, *supra* note 9 (finding that more than two-thirds of the contribution of immigrants to United States innovation has been due to the way in which immigrants make United States native-born workers substantially more productive themselves).

such workers specialize in STEM work.²³ My own research has shown that inflows of foreign STEM workers explain between 30 and 50 percent of the aggregate productivity growth that took place in the United States between 1990 and 2010.²⁴ Moreover, by attracting and hiring high-skilled foreign-born workers, U.S. cities and local economies can feed a virtuous cycle of increased growth and more opportunities for U.S. workers. There is strong evidence that one high-skilled job generates a “local multiplier,” attracting other jobs rather than displacing them.²⁵

13. The June Proclamation’s severe restrictions on high-skilled foreign-born workers would cause the U.S. economy to miss out on significant growth opportunities. This causes particular alarm among economists, including myself.²⁶ The world competes for global talent,²⁷ and the economic research establishes that lost technological and productivity growth in the United

²³ Kerr & Lincoln, *supra* note 8; William Kerr & William F. Lincoln, *Social Networks, Ethnicity, and Entrepreneurship*, (Nat’l Bureau of Econ. Research, Working Paper No.21597, 2016), <https://www.nber.org/papers/w21597>; Christian Gunadi, *An inquiry on the impact of highly-skilled STEM immigration on the U.S. Economy*, 61 Labour Econ. 101751 (2019).

²⁴ Peri, Shih & Sparber, *supra* note 1.

²⁵ Enrico Moretti, *Local Multipliers*, 100 Am. Econ. Rev.: Papers and Proceedings 373 (2010).

²⁶ Susan Cohen & Jennifer Hunt, *By blocking visas for foreign workers, Trump is further hurting the US economy*, CNN Business (June 26, 2020), <https://www.cnn.com/2020/06/26/perspectives/work-visa-restrictions-us-economy/index.html>; Peri & Sparber, *supra* note 1; Alex Nowrasteh, *President Trump’s Cancellation of Many Work Visas Will Hurt the American Economy*, Cato Inst. (June 22, 2020, 8:23 PM), <https://www.cato.org/blog/president-trumps-cancellation-many-work-visas-will-hurt-american-economy>; Aarthi Swaminathan, *Trump’s latest visa restrictions could hold back economic recovery, experts say*, Yahoo! Finance (June 30, 2020), <https://finance.yahoo.com/news/visa-restrictions-could-hold-back-economic-recovery-experts-say-140401419.html>; Stuart Anderson, *New Trump H-1B Visa Restrictions Will Harm Companies*, Forbes (June 23, 2020) <https://www.forbes.com/sites/stuartanderson/2020/06/23/new-trump-h-1b-visa-restrictions-will-harm-companies/#430c9ee170e8>.

²⁷ William Kerr, *The Gift of Global Talent: How Migration Shapes Business, Economy & Society* (Stanford Business Books, 1st ed. 2018).

States is likely to translate into the “off-shoring” of jobs as employers relocate to countries more hospitable to high-skilled immigration.²⁸ In addition, my research has found that H-1B restrictions not only directly affect foreign workers; they also deter foreign students from coming to the United States, reducing both the overall quantity and quality of the foreign student population. This has grave short-term consequences, directly harming United States higher education as a “service export,” as well as long-term consequences, reducing the number of foreign students who would otherwise seek to remain in the United States after graduation and contribute to the economy as innovative and entrepreneurial workers.²⁹ Economists have described restrictions on H-1B and related skilled labor inflows as a form of “national suicide.”

14. The primary comparable example of severe anti-immigrant policy adopted in the United States in response to economic contraction—the Hoover administration’s program to repatriate Mexican seasonal farm workers during the Great Depression—is a case in point.³⁰ The program’s massive deportations constituted one of the largest-ever policy experiments to improve the labor market for domestic farm workers by reducing the size of the workforce through the forced deportation of foreign-born farm workers—by some estimates, over 400,000

²⁸ Britta Glennon, *How do Restrictions on High-Skilled Immigration Affect Offshoring? Evidence from the H-1B Program, Boatlift* (Nat’l Bureau of Econ. Research, Working Paper No. 27538, 2020), <https://www.nber.org/papers/w27538>; William W. Olney & Dario Pozzol, *The Impact of Immigration on Firm-Level Offshoring*, IZA Inst. Of Labor Econ. (Apr. 2019), <http://ftp.iza.org/dp11480.pdf>; Gianmarco Ottaviano, Giovanni Peri & Greg C. Wright, *Immigration, Offshoring, and American Jobs*, 103 *Am. Econ. Rev.* 1925 (2013).

²⁹ Shih 2016, *supra* note 12; Takao Kato & Chad Sparber, *Quotas and Quality, The Effect of H-1B Visa Restrictions on the Pool of Prospective Undergraduate Students from Abroad*, 95 *Rev. of Econ. and Stats* 109 (2013).

³⁰ Francisco E. Balderrama & Raymond Rodríguez, *Decade of Betrayal: Mexican Repatriation in the 1930s* (UNM Press, 2006).

Mexican laborers, or nearly third of the Mexican population in the United States at that time, equivalent to about 1 percent of the total 1930 labor force.³¹ A recent analysis found that these forced deportations contributed to the decimation of economies close to the Mexican border by reducing the employment of native incumbent workers and resulting in a downgrading of their skills and compensation.³² Instead of the positive labor market effects that were intended to be a straightforward consequence of the program, the result was to hurt job opportunities for native-born farm workers, in the midst of a severe economic and labor-market downturn. I would expect the same dynamic to play out in the present circumstances if the Proclamations were to remain in place.

15. In sum, the short-term economic recovery from the COVID-19 pandemic, as well as the prospects for long-run economic growth in the United States, would be significantly dampened without the contributions of high-skilled immigrants. By restricting H-1B workers and other highly skilled professionals, the Proclamations not only bar many of the “best and brightest,” but will also prompt many such individuals to choose to avoid the United States altogether. The benefits of their innovation, entrepreneurship, and human capital will go to other countries and other economies. The Proclamations’ immigration restrictions will also dampen the consumer demand that would rejuvenate the economy once the worst of the COVID-19 pandemic has passed. The Proclamations will therefore likely have negative short-run effects and particularly dire long-term implications by depriving the United States of skills and talents that would have helped the economic recovery.

³¹ Jongkwan Lee, Giovanni Peri & Vasil Yassenov, *The Labor Market Effects of Mexican Repatriations: Longitudinal Evidence from the 1930s*, IZA Inst. Of Labor Econ. (Oct. 2019), <http://ftp.iza.org/dp12689.pdf>.

³² *Id.*; see also Balderrama, *supra* note 30.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on 31 July 2020 at Hamilton, New York.

A handwritten signature in black ink, appearing to read 'Chad Sparber', written over a horizontal line.

Chad Sparber