UPDATED ANALYSIS: EMPLOYMENT DATA FOR COMPUTER OCCUPATIONS FOR JANUARY TO NOVEMBER 2020

EXECUTIVE SUMMARY

The unemployment rate for individuals in computer occupations was 2.3% in November 2020, lower than the 3.0% unemployment rate in January 2020 (before the pandemic spread in the U.S.), according to an analysis of the Bureau of Labor Statistics' (BLS) Current Population Survey by the National Foundation for American Policy (NFAP). These are the same occupations in which most H-1B visa holders work. In a slightly broader category, computer and mathematical occupations, the unemployment rate declined from 3.0% in January to 2.4% in November 2020, according to BLS. Active job vacancy postings advertised online in computer occupations were at 731,762 in the United States as of November 17, 2020, an increase of 17% over May 2020, according to Emsi Job Posting Analytics. Compared to May 2020, 11 of the 12 computer occupations had an increase in active job postings. In December 2020, there were 773,844 active job vacancy postings advertised online in computer occupations in the U.S., an increase of 24% since May 2020, with 10 of the 12 occupations increasing in active job vacancy postings from 12 months earlier. These and related economic indicators show that computer occupations have weathered the pandemic well, particularly when compared to other occupations. The data also call into question the Trump administration's decision on December 31, 2020, to extend until March 31, 2021, two proclamations that block the entry of H-1B visa holders, employment-based immigrants and others.

Table 1
U.S. Unemployment Rate in Computer Occupations

OCCUPATIONS	JANUARY 2020	NOVEMBER 2020
Computer Occupations	3.0%	2.3%
All Other Occupations	4.1%	6.5%

Source: National Foundation for American Policy estimates using Bureau of Labor Statistics' Current Population Survey, January and November 2020. Not seasonally adjusted. Computer occupations include Computer and information research scientist, Computer and information systems manager, Computer hardware engineer, Computer network architect, Computer programmer, Computer support specialist, Computer systems analyst, Database administrator and architect, Information security analyst, Electrical and electronics engineer, Network and computer systems administrator, Software developer, Software quality assurance analyst and tester, Web and digital interface designer and Web developer.

The Trump administration's use of section 212(f) of the Immigration and Nationality Act is unprecedented, both in blocking entire categories of immigrants and temporary visa holders, and in citing unemployment rates as a justification. The Trump administration issued proclamations blocking the entry of immigrants (on April 22, 2020) and H-1B, L-1 and other temporary visa holders (on June 22, 2020). The overall national unemployment rate declined by more than 50% since the first proclamation was issued, falling from 14.7% in April to 6.7% in November 2020. Between January 2009 and November 2013, the national unemployment rate was above 6.7% every month, according to BLS, and the president at the time did not consider blocking the entry of nearly all immigrants and temporary visa holders, nor would economists have advocated such an action.

The data indicate stability and actual declines in the unemployment rate in computer occupations and for computer and mathematical occupations. The data contradict the Trump administration's decision both to institute and extend the proclamations. The extension of the two proclamations on December 31, 2020, did not contain any evidence on the need for the proclamations based on unemployment in computer occupations or related fields.

The data also contradict Trump administration statements in regulations that "good cause" exceptions to the rulemaking process and emergency actions were needed to impose new restrictions on H-1B visas for high-skilled foreign nationals due to unemployment caused by Covid-19. The highest computer and mathematical occupation unemployment rate in 2020 was 4.6% (in August), but since the year 2000 there have been 51 months with an unemployment rate in computer and mathematical occupations higher than 4.6% and no previous president or federal agency viewed those periods as requiring emergency measures to restrict legal immigration. (This analysis updates an NFAP Policy Brief published in November 2020.)

THE UNEMPLOYMENT RATE IN COMPUTER OCCUPATIONS

The U.S. unemployment rate for individuals in computer occupations stood at 2.3% in November 2020, declining from a 3.0% unemployment rate in computer occupations in January 2020, before the spread of Covid-19, according to an analysis of the Bureau of Labor Statistics' Current Population Survey.[1] A similar measure of the U.S. unemployment rate in computer and mathematical occupations, which appears on the BLS website, showed an unemployment rate of 3.0% in January 2020 and 2.4% in November 2020.[2] The rates are well below the unemployment rate of 6.5% for non-computer occupations in November 2020.[3]

Table 2
U.S. Unemployment Rate in Computer and Mathematical Occupations

OCCUPATIONS	JANUARY 2020	NOVEMBER 2020
Computer and Mathematical Occupations	3.0%	2.4%

Source: Bureau of Labor Statistics.

The November 2020 unemployment rates show a decline from September 2020. The unemployment rate for computer occupations was 3.5% in September and fell to 2.3% in November 2020. The unemployment rate for computer and mathematical occupations declined from 3.5% in September to 2.4% in November 2020. (See Table 3.)

Table 3
U.S. Unemployment Rate in Computer (and Mathematical) Occupations

CATEGORY	SEPTEMBER 2020	NOVEMBER 2020	PERCENTAGE POINT DECLINE
Computer Occupations	3.5%	2.3%	-1.2
Computer and Mathematical Occupations	3.5%	2.4%	-1.1

Source: National Foundation for American Policy, Bureau of Labor Statistics.

The Trump administration issued a proclamation to suspend the entry of H-1B, L-1 and certain other visa holders on June 22, 2020. The administration claimed high unemployment as one justification for the proclamation but a judge granted a preliminary injunction against the proclamation. Among the reasons for the opinion, the judge cited

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[1] Note: "The Current Population Survey (CPS) is a monthly survey of households conducted by the Bureau of Census for the Bureau of Labor Statistics," according to BLS.
[2] Unemployment rate for computer and mathematical occupations: https://www.bls.gov/web/empsit/cpseea30.htm.
[3] BLS data on occupations are not seasonally adjusted.

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National Foundation for American Policy data on computer occupation unemployment rates and active job vacancy postings advertised. The National Foundation for American Policy analysis of the Bureau of Labor Statistics' Current Population Survey found U.S. professionals in computer occupations – in the same occupations as most H-1B visa holders – had a lower unemployment rate in May 2020 than in January 2020. (January 2020 was prior to the coronavirus having a major impact on the U.S. population.) That information was available to the administration when it issued the June proclamation.

The Trump administration decided on December 31, 2020, to extend until March 31, 2021, two proclamations that suspended the entry of H-1B visa holders, employment-based immigrants and others. The presidential proclamation extending the two prior proclamations made no attempt to justify the action based on the unemployment rate in computer occupations or related technical fields. The only employment reference contained in the new proclamation was a comparison to the number of jobs in February and the overall national unemployment rate, which dropped more than 50% since the first proclamation was issued – from 14.7% in April to 6.7% in November 2020.[4]

On December 31, 2020, Donald Trump applauded U.S. employment and the economy in a video. "The proclamation's message about the economy is also contradictory for the president," noted CNN. "In a video posted to his Twitter account earlier Thursday, in which the president touted the growth of the U.S. economy, he bragged about the unemployment rate and said the number is 'heading a lot lower' than the current 6.7%."[5]

A CLOSER LOOK AT THE NUMBERS

There are often month-to-month fluctuations in employment numbers but the big picture is how individuals in computer occupations have fared well compared to individuals in other occupations, reflecting the continued demand in the U.S. labor market for their technical skills and knowledge. The unemployment rate for individuals in computer occupations in 2020 was fairly consistent at 3% in January 2020, 2.4% in February, 1.9% in March, 2.8% in April and 2.5% in May. In contrast, the overall unemployment rate for individuals in all other occupations went from 4.1% in January 2020 to 15% in April and 13.5% in May due to the impact of businesses affected by the coronavirus, lockdowns and social distancing.

Numbers fluctuated over the summer, with the unemployment rate in computer occupations in June, July and August at 4.4%, 3.9% and 4.6% before settling back down to 3.5% in September, 3.0% in October and 2.3% in

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[4] "While the November overall unemployment rate in the United States of 6.7 percent reflects a marked decline from its April high, there were still 9,834,000 fewer seasonally adjusted nonfarm jobs in November than in February of 2020," the proclamation stated. https://www.whitehouse.gov/presidential-actions/proclamation-suspension-entry-immigrants-nonimmigrants-continue-present-risk-united-states-labor-market/.

[5] Jason Hoffman, "Trump extends immigration restrictions, citing pandemic's impact on labor market," CNN, December 31, 2020.

November 2020. Similarly, the unemployment rate in computer and mathematical occupations was 3.0% in May, followed by 4.3%, 4.4% and 4.6% in June, July and August before going back down to 3.5% in September, 2.8% in October and 2.4% in November 2020.

It makes sense that the National Foundation for American Policy's estimates of BLS unemployment rates in "computer occupations" would generally track the BLS's estimates for "computer and mathematical occupations." The NFAP focus on computer occupations is to track closely the occupations listed as most common for H-1B visa holders in Department of Homeland Security (DHS) statistical reports. About 80% of the workers in NFAP's "computer occupations" are also in BLS's "computer and mathematical occupations," which explains the identical unemployment rates in some months.

In the NFAP analysis of government unemployment rate data, the computer occupations track those listed in the H-1B "characteristics report" for FY 2019 published by U.S. Citizenship and Immigration Services (USCIS). According to the USCIS report, 66% of H-1B beneficiaries in FY 2019 were in computer-related occupations.[6] The computer occupations included in the NFAP analysis of Bureau of Labor Statistics data were Computer and information research scientists, Computer and information systems manager, Computer hardware engineer, Computer network architect, Computer programmer, Computer support specialist, Computer systems analyst, Database administrator and architect, Information security analyst, Electrical and electronics engineer, Network and computer systems administrator, Software developer, Software quality assurance analyst and tester, Web and digital interface designer and Web developer.

There are several likely explanations for why professionals in computer occupations have fared much better than workers in other occupations. The skills in computer occupations are those that generally can be performed remotely, an important characteristic during the coronavirus pandemic, according to labor economist and NFAP Senior Fellow Mark Regets. He notes the skills in computer occupations remain in demand today and are going to be in even higher demand in the future as work continues to move or remain online.

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[6] Table 8B, *Characteristics of H-1B Specialty Occupation Workers Fiscal Year 2019 Annual Report to Congress October 1, 2018 – September 30, 2019*, USCIS, March 5, 2020. NFAP included electrical and electronics engineers in the analysis of government unemployment rate data. Other occupations eligible for H-1Bs, such as accountants, appear in much lower numbers in the USCIS report.

ACTIVE JOB VACANCY POSTINGS IN COMPUTER OCCUPATIONS

Another indicator of strong demand for technical talent, in addition to the low unemployment rate in computer (and mathematical) occupations, is that as of November 17, 2020, there were 731,762 job vacancy postings advertised online in the previous 30-day period for jobs in the most common computer occupations that typically require at least a bachelor's degree, according to Emsi Job Posting Analytics.[7] That represents a 17% increase for job vacancy postings in the most common computer occupations since May 2020. Eleven of the 12 occupations showed an increase, in some cases significant increases, in active job vacancy postings since May. (See Table 4.)

Table 4
Active Job Vacancy Postings in Computer Occupations

OCCUPATIONS	ACTIVE JOB VACANCY POSTINGS (April 14 to May 13, 2020)	ACTIVE JOB VACANCY POSTINGS (October 18 to November 17, 2020)
Software Developer, Applications	258,607	323,097 (+24.9%)
Network and Computer System Administrator	86,953	98,770 (+13.6%)
Computer Systems Analyst	81,460	87,024 (+6.8%)
Information Security Analyst	54,570	64,918 (+19%)
Electrical Engineer	33,507	35,618 (+6.3%)
Software Developer, Systems Software	26,740	31,783 (+18.9%)
Computer Programmer	23,464	23,607 (+0.6%)
Database Administrator	17,447	16,666 (-1.3%)
Computer and Information Research Scientist	16,882	19,670 (+12.7%)
Electronics Engineer (except computer)	12,945	14,618 (+12.9%)
Computer Hardware Engineer	7,153	9,234 (+29.1%)
Computer Network Architect	5,974	6,757 (+13.1%)
TOTAL	**625,702**	**731,762 (+17%)**

Source: Emsi Job Posting Analytics; National Foundation for American Policy. According to Emsi, "All job posting counts reflect unique postings that were active during the indicated time frame," April 14 to May 13, 2020, and October 18 to November 17, 2020.

This includes 323,097 active job vacancy postings for software developer (applications), 98,770 for network and computer system administrator, 87,024 for computer systems analyst, 64,918 for information security analyst, 35,618 for electrical engineer and 31,783 for software developer, systems software. "All job posting counts reflect

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[7] See https://www.economicmodeling.com/job-posting-dashboard/.

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unique postings that were active during the indicated time frame," which was October 18 to November 17, 2020.[8] These occupations track those eligible for H-1B visas, according to DHS and BLS data.

An update of these figures for December 2020 shows the jobs picture in computer occupations is even brighter. There were 773,844 job vacancy postings advertised online in the previous 30-day period (as of January 1, 2021) for jobs in the most common computer occupations that typically require at least a bachelor's degree, according to Emsi Job Posting Analytics.[9] That represents a 24% increase for job vacancy postings in the most common computer occupations since May 2020. This includes 341,432 active job vacancy postings for software developer (applications) in December 2020, 98,998 for network and computer system administrator and 103,810 for computer systems analyst.

DOL AND DHS JUSTIFICATIONS FOR INTERIM FINAL RULES

On October 8, 2020, the U.S. Department of Labor published a rule to change the way prevailing wage is determined for H-1B visa holders and employment-based immigrants.[10] DOL issued the rule as "interim final," allowing it to go into effect immediately without prior notice and comment. The agency claimed one reason for the "good cause" exception to the Administrative Procedure Act (APA) is unemployment caused by the coronavirus pandemic.

"Here, two different circumstances are present that satisfy the APA's good cause criteria. First, the shock to the labor market caused by the widespread unemployment resulting from the coronavirus public health emergency has created exigent circumstances that threaten immediate harm to the wages and job prospects of U.S. workers," according to the DOL rule. The second reason stated for a "good cause" exception is advance notice of the rule would allow employers to use the old wage rates rather than the new DOL prevailing wage rate that generally inflates the required wage 30% to 40% or more over DOL wage requirements in effect prior to October 8, 2020.[11] Analysts believe the purpose of the new wage rates is to price H-1B visa holders out of the U.S. labor market.

To support its case, the DOL rule cites unemployment figures in the presidential proclamation issued on June 22, 2020, against which a federal judge issued a preliminary injunction. "The Proclamation notes that 'between February and April of 2020. . . more than 20 million United States workers lost their jobs in key industries where employers are currently requesting H–1B and L workers to fill positions.'"[12] The rule also states, "Under the high unemployment

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[8] Ibid.
[9] See https://www.economicmodeling.com/job-posting-dashboard/.
[10] "Strengthening Wage Protections for the Temporary and Permanent Employment of Certain Aliens in the United States," Department of Labor, Employment and Training Administration, 20 CFR Parts 655 and 656 [DOL Docket No. ETA–2020–0006], RIN 1205–AC00, *Federal Register*, October 8, 2020. https://www.federalregister.gov/documents/2020/10/08/2020-22132/strengthening-wage-protections-for-the-temporary-and-permanent-employment-of-certain-aliens-in-the.
[11] Ibid., p. 63898.
[12] Ibid., p. 63899.

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rates experienced in the U.S. labor market this year, which reached 14.7 percent in April, a rate not seen since the Great Depression, and remain elevated, the existing flawed and arbitrary wage levels pose an immediate threat to the livelihoods of U.S. workers."[13]

The Department of Homeland Security, like DOL, published a rule on October 8, 2020, that substantially changes the H-1B visa category and made similar arguments for issuing the regulation as interim final, including citing the June 2020 proclamation. "The pandemic emergency's economic impact is an 'obvious and compelling fact' that justifies good cause to forgo regular notice and comment,'" according to the DHS rule. "Such good cause is 'justified by obvious and compelling facts that can be judicially noticed.'"[14]

It is inaccurate for a government agency to characterize the current economic situation in computer occupations as an emergency. As noted, H-1B visa holders work primarily in computer occupations. The U.S. unemployment rate for individuals in computer occupations stood at 3.0% in October 2020, not changed from the 3.0% unemployment rate in January 2020. There were 731,762 job vacancy postings advertised online in October 2020 for jobs in the most common computer occupations that typically require at least a bachelor's degree.[15]

In addition, while the DOL rule cites the overall national unemployment rate reaching 14.7% in April 2020, the September 2020 national unemployment rate dropped to 7.9%, and was down to 6.9% in October 2020.[16] DHS justified making its rule interim final based on outdated unemployment data: "This is particularly urgent given the exceptionally high unemployment rate in the United States – 10.2 percent as of August 7, 2020."[17] However, that national unemployment rate of 10.2% cited by DHS was for July 2020, *two months old* at the time DHS issued its H-1B rule, and the U.S. unemployment rate had already declined to 8.4% for August 2020 and 7.9% for September, without any action by the Department of Homeland Security.[18] In addition, the unemployment rate for individuals 25 years and over with a bachelor's degree or higher declined from 6.7% in July 2020 to 5.3% in August, to 4.8% in September and 4.2% in both October and November 2020.[19] There are additional issues with the DHS rule.[20]

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[13] Ibid., p. 63899.

[14] "Strengthening the H–1B Nonimmigrant Visa Classification Program," Department of Homeland Security, 8 CFR Part 214 [CIS No. 2658–20 DHS Docket No. USCIS–2020–0018] RIN 1615–AC13, *Federal Register*, October 8, 2020. p. 63938. https://www.federalregister.gov/documents/2020/10/08/2020-22347/strengthening-the-h-1b-nonimmigrant-visa-classification-program.

[15] See https://www.economicmodeling.com/job-posting-dashboard/.

[16] Bureau of Labor Statistics. https://www.bls.gov/news.release/empsit.nr0.htm.

[17] "Strengthening the H–1B Nonimmigrant Visa Classification Program," Department of Homeland Security, 8 CFR Part 214, p. 63939.

[18] Ibid.

[19] See here: https://www.bls.gov/news.release/empsit.t04.htm.

[20] The administration understates the changes in the DHS H-1B rule. "[T]he rule only affects several discrete aspects of the H–1B program, as discussed above. '[T]he less expansive the interim rule, the less the need for public comment,'" stated the rule. However, the DHS assertion is not accurate. "The Department of Labor (DOL) and the Department of Homeland Security (DHS) announced regulations that will significantly impact the H-1B visa program," according to attorney John F. Quill. "The [DHS] rule dramatically narrows the standard for qualification for H-1B status, and also creates onerous burdens on employers

In an opinion issued on December 1, 2020, U.S. District Judge Jeffrey S. White vacated the regulations to restrict H-1B visas from the Department of Labor and the Department of Homeland Security. He stated that both rules violated the Administrative Procedure Act. The unemployment rate and job vacancy postings in computer occupations contained in a National Foundation for American Policy report were among the reasons cited. Judges in two other cases also ruled against the Department of Labor regulation, unconvinced by the Trump administration's argument an emergency existed that necessitated a "good cause" exception to the Administrative Procedure Act's requirement to provide an opportunity for notice and comment.

HISTORICAL UNEMPLOYMENT RATE IN COMPUTER AND MATH OCCUPATIONS

A major flaw in the DOL and DHS arguments that current unemployment rates signify an emergency requiring a "good cause" exception to the normal rulemaking process is that the unemployment rate for computer and mathematical occupations in 2020 only reached as high as 4.6% in one month (August 2020), but the 4.6% unemployment rate in those occupations has been exceeded in 51 individual months since 2020 and the Department of Labor never previously cited it as a reason to issue a regulation to change H-1B prevailing wage rates, including immediately as an interim final rule.

In 2001, the unemployment rate in computer and mathematical occupations was between 4.7% and 5.3% in August through November. From April 2002 through April 2004, a span of two years, a 4.6% unemployment rate in computer and mathematical occupations was exceeded in 23 of the 25 months. In 2009, from January through September, the unemployment rate in computer and mathematical occupations was higher than 4.6% for 9 consecutive months. In 2010, from January through July, the unemployment rate in computer and mathematical occupations exceeded 4.6% for 7 consecutive months. From October 2010 through February 2011, for 5 consecutive months, the unemployment rate in computer and mathematical occupations was higher than 4.6%. (See Table 5.)

MISLEADING DHS REFERENCE TO UNEMPLOYMENT RATE IN SECTORS

It is not valid to use the unemployment rate in the Information sector and the Professional and Business Services sector to justify the "good cause" exception to the Administrative Procedure Act to restrict H-1B visas, as DHS does in its rule, since only approximately 10% of the jobs (computer occupations with a B.S. or higher) in these sectors are in occupations similar to professionals in the H-1B category. The DHS rule contains a misleading reference to

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that place H-1B workers at another company's location." https://www.natlawreview.com/article/new-regulations-will-significantly-restrict-h-1b-visa-eligibility-part-2-2.

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the unemployment rates in the Information sector and the Professional and Business Services sector to justify the "good cause" exception to the Administrative Procedure Act.[21]

Table 5
U.S. Unemployment Rate in Computer and Mathematical Occupations: 2000-2020

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2000	2.5	2.3	2.1	1.9	2.3	1.7	2.1	1.8	1.9	2.9	2.5	2.4
2001	2.5	2.9	2.7	2.2	2.9	3.4	3.2	4.7	5.3	4.7	5.0	3.8
2002	4.9	4.5	4.1	4.8	5.7	5.7	4.4	4.7	4.9	4.8	5.0	5.1
2003	5.6	5.7	6.5	6.0	5.3	5.0	5.6	5.2	5.5	5.3	4.6	5.1
2004	6.0	5.7	5.6	5.1	4.5	4.0	3.6	2.9	3.3	3.3	3.1	3.0
2005	3.5	3.8	3.8	3.6	4.0	2.8	2.6	2.0	2.0	2.5	2.0	1.9
2006	2.2	2.2	2.9	2.3	2.7	2.5	2.3	2.0	2.5	2.6	2.4	2.4
2007	2.6	2.0	1.9	1.4	2.1	1.9	2.5	2.1	2.2	2.8	1.7	2.5
2008	2.5	2.8	2.5	2.2	2.3	1.9	2.2	2.2	2.6	3.5	3.0	3.4
2009	4.8	5.4	5.7	5.6	4.9	5.4	5.6	5.6	6.2	4.6	4.2	4.5
2010	5.9	5.9	6.5	5.3	5.5	5.1	4.7	4.3	4.3	4.8	5.2	5.3
2011	5.3	4.7	4.0	3.7	3.8	3.3	4.7	3.7	4.2	4.6	4.1	3.6
2012	3.8	4.9	4.6	4.3	3.5	3.1	3.1	3.4	3.5	3.2	2.8	3.8
2013	3.9	3.5	3.2	3.0	3.5	4.2	3.8	3.3	4.5	3.6	3.3	3.7
2014	2.3	2.9	2.8	2.8	2.6	3.6	2.3	3.1	2.8	3.0	2.0	2.4
2015	2.5	2.4	2.0	1.9	1.5	2.5	3.4	2.9	2.8	2.8	3.4	2.6
2016	2.4	2.5	2.4	2.0	2.0	2.2	2.9	2.4	3.0	3.1	2.9	2.6
2017	2.8	2.7	2.1	2.5	1.9	2.3	2.1	2.4	2.8	2.5	2.5	2.4
2018	2.8	2.5	1.4	1.7	2.3	1.9	1.9	2.5	2.0	2.1	2.4	2.1
2019	2.4	2.3	1.6	2.4	1.3	1.5	1.3	1.5	2.4	2.2	2.4	2.3
2020	3.0	2.4	2.4	4.3	3.7	4.3	4.4	4.6	3.5	2.8	2.4	

Source: Bureau of Labor Statistics. Numbers represent percentages.

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[21] "Strengthening the H–1B Nonimmigrant Visa Classification Program," Department of Homeland Security, 8 CFR Part 214, page 63939.

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A major problem with using the unemployment rates in broad industry sectors is those rates measure unemployment among *all employees in entire companies* in those sectors, *not specific occupations*, particularly not those occupations in which H-1B visa holders normally work. This lack of precision is understandable, since BLS attempts to divide businesses into 12 broad non-agricultural sectors for statistical purposes.[22]

Table 6
Education Level and Computer Occupations in Information & Professional and Business Services Sectors

Category	Information Sector	Professional and Business Services Sector
Percent of Workers With Less Than A Bachelor's Degree	43.5%	45.3%
Percent of Workers in a Computer Occupation with a B.S. or Higher	10.3%	9.8%

Source: Bureau of Labor Statistics, National Foundation for American Policy.

Approximately 90% of the jobs in these two sectors cited in the DHS rule are not similar to the types of jobs for which companies employ H-1B visa holders (computer occupations with a B.S. or higher). Over 40% of the individuals working in the Information sector and the Professional and Business Services sector have less than an undergraduate degree. (See Table 6.) Two of the top 5 jobs in these sectors are janitors and landscaping and groundskeeping workers. The other three of the top 5 jobs in the sectors are managers, software developers and lawyers.[23] (See Table 7.)

Table 7
Top 5 Occupations in Information & Professional and Business Services Sectors

Occupation	Percent of Workers in Combined Sectors
Managers	7.5%
Software Developers	5.0%
Landscaping and Groundskeeping Workers	4.3%
Lawyers	4.0%
Janitors	3.9%

Source: Bureau of Labor Statistics, National Foundation for American Policy.

The two sectors cited by DHS include many types of businesses that employ few H-1B visa holders and are too diverse to be reliable indicators of the employment situation for individuals who work primarily in computer-related fields. The Professional and Business Services sector includes landscaping services, waste management and remediation services, travel arrangements and reservations, legal services, accounting and advertising. The

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[22] https://www.bls.gov/news.release/empsit.t14.htm.
[23] Bureau of Labor Statistics.

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Information sector includes newspaper publishers, radio and television broadcasting, book publishers and libraries. (See Appendix for complete list.)[24]

While companies in the Information sector and the Professional and Business Services sector include some employees with similar skills and occupations as professionals in the H-1B category (about 10%), they employ many more people who work in sales, retail, administrative, managerial and other jobs for the companies. If the Bureau of Labor Statistics measured Major League baseball teams in 2020, it would find the unemployment rate among those teams in that "sector" increased because teams laid off ushers, ticket sales representatives, hot dog vendors and cashiers since no fans were permitted in stadiums that season for health reasons. However, the number of baseball players – the specialized positions – did not decline on Major League teams. In fact, rosters expanded from 25 to 28 players during the shortened 2020 baseball season.

CONCLUSION

The Trump administration's case for extending the two proclamations until March 31, 2021, is weak. The latest Bureau of Labor Statistics data show the U.S. unemployment rate in occupations most common for H-1B visa holders declined between January and November 2020, from 3.0% to 2.3% in computer occupations and from 3.0% to 2.4% in computer and mathematical occupations. The economic data undermine the case for emergency measures, particularly when the economic literature argues against new restrictions on high-skilled immigration.[25]

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[24] BLS uses the Census Industrial Classification: https://www2.census.gov/programs-surveys/demo/guidance/industry-occupation/census-2012-final-code-list.xls.
[25] See "Economic Research" in the Appendix.

Appendix – A Note on Methodology

The analysis on computer occupations from the National Foundation for American Policy (NFAP) focused only on computer occupations in the Bureau of Labor Statistics (BLS) data and listed which occupations were examined in the analysis. The analysis tracked the same occupations for all of 2020. The computer occupations selected matched those as best as possible with the occupations in *Characteristics of H-1B Specialty Occupation Workers Fiscal Year 2019 Annual Report to Congress October 1, 2018 – September 30, 2019*, published by U.S. Citizenship and Immigration Services.

Each month the Bureau of Labor Statistics calculates its estimates of unemployment rates using the Current Population Survey (CPS), a monthly survey of about 120,000 individuals in 60,000 households. Each month, shortly after releasing its own data tables, BLS makes a public use data file available of individual CPS survey responses so that others can both replicate BLS's numbers and perform analyses beyond BLS's own monthly tables.

NFAP's calculations of the unemployment rate in computer occupations are made using the monthly CPS public use files using the same individual sample weights as BLS and applying the same formula that BLS uses to calculate its own estimates of unemployment.

BLS publishes an unemployment rate for "computer and mathematical occupations." The National Foundation for American Policy's estimates of unemployment rates in "computer occupations" differs from BLS's estimates for "computer and mathematical occupations" in only two ways. First, NFAP includes several clear computer occupations that BLS excludes: computer and information systems manager, computer hardware engineer and electrical and electronics engineers. Second, NFAP excludes the mathematical occupations: actuaries, operations research analysts, statisticians and "other mathematical occupations." (About 80% of the workers in NFAP's "computer occupations" are also in BLS's "computer and mathematical occupations.")

2012 Census Industrial Classification Used by the Bureau of Labor Statistics[26]

Information

Newspaper publishers

Periodical, book, and directory publishers

Software publishers

Motion pictures and video industries

Sound recording industries

Radio and television broadcasting and cable subscription programming

Internet publishing and broadcasting and web search portals

Wired telecommunications carriers

Other telecommunications services

Data processing, hosting, and related services

Libraries and archives

Other information services

Professional and Business Services

Professional and technical services

Legal services

Accounting, tax preparation, bookkeeping, and payroll services

Architectural, engineering, and related services

Specialized design services

Computer systems design and related services
Management, scientific, and technical consulting services

Scientific research and development services

Advertising, public relations, and related services

Veterinary services

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[26] BLS uses the Census Industrial Classification: https://www2.census.gov/programs-surveys/demo/guidance/industry-occupation/census-2012-final-code-list.xls.

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Other professional, scientific, and technical services

Management, administrative, and waste services

Management of companies and enterprises

Employment services

Business support services

Travel arrangements and reservation services

Investigation and security services

Services to buildings and dwellings

Landscaping services

Other administrative and other support services

Waste management and remediation services

ECONOMIC RESEARCH

Economic research shows foreign-born individuals do not harm the labor market prospects of Americans. "H-1B visa holders do not adversely affect U.S. workers," according to a May 2020 National Foundation for American Policy study by Madeline Zavodny, formerly an economist at the Federal Reserve Bank of Atlanta (and Dallas) and a professor of economics at the University of North Florida (UNF) in Jacksonville. "On the contrary, the evidence points to the presence of H-1B visa holders being associated with lower unemployment rates and faster earnings growth among college graduates, including recent college graduates. Further, the results suggest that, if anything, being in a field with more H-1B visa holders makes it more likely that U.S.-born young college graduates work in a job closely related to their college major. The results here should give pause to policymakers considering imposing additional restrictions on the H-1B program. There is little reason to think doing so will help American workers."[27]

Another study by Madeline Zavodny also addresses the issue of unemployment. "There is no evidence that foreign students participating in the OPT [Optional Practical Training] program reduce job opportunities for U.S. workers. Instead, the evidence suggests that U.S. employers are more likely to turn to foreign student workers when U.S. workers are scarcer," according to Zavodny. The study also found, "The relative number of foreign students approved for OPT is negatively related to various measures of the unemployment rate among U.S. STEM workers. A larger number of foreign students approved for OPT, relative to the number of U.S. workers, is associated with a lower unemployment rate among those U.S. workers."[28]

A study by economists Giovanni Peri, Kevin Shih, Chad Sparber and Angie Marek Zeitlin examined the last recession and found that denying the entry of H-1B visa holders due to the annual limits harmed job growth for U.S.-born professionals. "The number of jobs for U.S.-born workers in computer-related industries would have grown at least 55% faster between 2005-2006 and 2009-2010, if not for the denial of so many applications in the recent H-1B visa lotteries," concluded the economists.[29]

Research by Britta Glennon, an assistant professor at the Wharton School of Business at the University of Pennsylvania, found new restrictions on H-1B visas are likely to push jobs out of the United States, concluding,

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[27] Madeline Zavodny, *The Impact of H-1B Visa Holders on the U.S. Workforce*, NFAP Policy Brief, National Foundation for American Policy, May 2020.

[28] Madeline Zavodny, *International Students, STEM OPT and the U.S. Workforce*, NFAP Policy Brief, National Foundation for American Policy, March 2019.

[29] Giovanni Peri, Kevin Shih, Chad Sparber and Angie Marek Zeitlin (June 2014), *Closing Economic Windows: How H-1B Visa Denials Cost U.S.-Born Tech Workers Jobs and Wages During the Great Recession*, Partnership for a New American Economy.

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"[A]ny policies that are motivated by concerns about the loss of native jobs should consider that policies aimed at reducing immigration have the unintended consequence of encouraging firms to offshore jobs abroad." [30]

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[30] Britta Glennon, *How Do Restrictions on High-Skilled Immigration Affect Offshoring? Evidence from the H-1B Program*, Carnegie Mellon University, May 2019.

ABOUT THE NATIONAL FOUNDATION FOR AMERICAN POLICY

Established in 2003, the National Foundation for American Policy (NFAP) is a 501(c)(3) non-profit, non-partisan public policy research organization based in Arlington, Virginia, focusing on trade, immigration and related issues. Advisory Board members include Columbia University economist Jagdish Bhagwati, Cornell Law School professor Stephen W. Yale-Loehr, Ohio University economist Richard Vedder and former INS Commissioner James Ziglar. Over the past 24 months, NFAP's research has been written about in the *Wall Street Journal*, the *New York Times*, the *Washington Post*, and other major media outlets. The organization's reports can be found at www.nfap.com. Twitter: **@NFAPResearch**