

National Foundation for American Policy

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Contact: Stuart Anderson, 703-351-5042, press@nfap.com

New Data: Over 1 Million Active Job Vacancy Postings In Computer Occupations in the U.S., Up 11% From 12 Months Earlier

Computer Unemployment Rate Below Pre-Pandemic Levels; Immigration Restrictions Continue and May Expand

Arlington, Va. – There are over 1 million unique active job vacancy postings in computer occupations in the United States as of March 7, 2021, up 11% from 12 months earlier, based on data from Emsi Job Posting Analytics, according to [an analysis](#) by the National Foundation for American Policy (NFAP). The unemployment rate in computer occupations is down to 2.3%, below the level of 3.0% in January 2020 before the coronavirus pandemic started. There is not a fixed number of jobs, and people with high skills often create more jobs for people with complementary skills. Still, even if one adopts a zero-sum approach, there are nearly 20 times more job vacancy postings in computer occupations than new H-1B petitions typically used by companies in computer occupations each year for high-skilled foreign nationals. There are also likely many more openings than publicly posted positions.

The latest employment data call into question a proclamation blocking the entry of H-1B visa holders and other immigration restrictions that are based on the premise U.S. workers need dramatic new protections against foreign-born scientists and engineers. The restrictions include two new regulations on H-1B visas published by the Trump administration before Donald Trump left office. One rule aims to price employment-based immigrants and H-1B visa holders out of the U.S. labor market. The Biden administration must decide how to proceed on the regulations.

The study, “Employment Data For Computer Occupations for January 2020 to March 2021,” can be found at <https://nfap.com/>.

An indicator of the strong demand for technical talent is that as of March 7, 2021, there were 1,038,828 unique active job vacancy postings 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. That represents an 11% increase compared to 12 months earlier (February 8, 2020 to March 7, 2020) for the number of active vacancy postings in the most common computer occupations. Ten of the 13 occupational categories showed an increase, in some cases significant increases, in active job vacancy postings compared to 12 months earlier.

March 7, 2020, is approximately a week before the general shutdown of much in-person economic activity in the United States that took place due to the coronavirus pandemic.

The employment postings in computer occupations include 378,197 active job vacancy postings for software developers and software quality assurance analysts and testers, 101,737 for computer systems analysts, 101,153 for network and computer system administrators, 67,995 for information security analysts, and 37,058 for electrical engineers. “All job posting counts reflect unique postings

that were active during the indicated time frame,” which was February 8 to March 7, 2021. These occupations track those eligible for H-1B visas, according to DHS and BLS data.

The 13 occupational categories covered by this analysis are similar but not identical to the ones NFAP has tracked over the past year. In March 2021, Emsi updated its categories and standard occupational classification (SOC) codes in computer occupations, and NFAP adjusted its tracking of active job vacancy postings accordingly. The current list provides the employment picture for active postings for jobs in common computer occupations that typically require at least a bachelor’s degree.

The U.S. unemployment rate in computer occupations was 2.3% in February 2021, declining from a 3.0% unemployment rate in computer occupations in January 2020, before the start of the pandemic, according to an NFAP analysis of the Bureau of Labor Statistics’ Current Population Survey. 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).

Table 1
Active Job Vacancy Postings in Computer Occupations

| OCCUPATIONS | ACTIVE JOB VACANCY POSTINGS (February 8 to March 7, 2021) | Change from 12 months Earlier (February 8, 2020 to March 7, 2020) |
|---|--|--|
| Software Developer and Software Quality Assurance Analyst and Tester | 378,197 | +14% |
| Computer Occupations, All Other | 194,130 | +15% |
| Computer Systems Analyst | 101,737 | +6% |
| Network and Computer System Administrator | 101,153 | +6% |
| Information Security Analyst | 67,995 | +17% |
| Computer and Information Systems Manager | 61,621 | +27% |
| Electrical Engineer | 37,058 | -5% |
| Computer Programmer | 26,241 | -14% |
| Computer and Information Research Scientist | 21,767 | +21% |
| Database Administrator | 17,213 | -4% |
| Electronics Engineer (except computer) | 15,118 | +6% |
| Computer Hardware Engineer | 9,794 | +14% |
| Computer Network Architect | 6,804 | +3% |
| TOTAL | 1,038,828 | +11% |

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,” February 8, 2020 to March 7, 2020 and February 8, 2021 to March 7, 2021.

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. The Advisory Board members include Columbia University economist Jagdish Bhagwati, Ohio University economist Richard Vedder, Cornell Law School professor Stephen W. Yale-Loehr and former INS Commissioner James W. 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](https://twitter.com/NFAPResearch)

2111 Wilson Blvd., Suite 700, Arlington, VA 22201
phone: (703) 351-5042 fax: (703) 351-9292 www.nfap.com