

ATMOSPHERICS

08.25.23

U.S. OCCUPATIONS



Bottom Line Up Front:

- The Bureau of Labor Statistics (BLS) categorizes and defines occupations through its Standard Occupational Classification (SOC) System; as of 2023 there are currently just over 860 unique occupations within the U.S., each determined by their respective combination of duties, skills, and qualifications.
- Over the last decade, the U.S. occupation landscape has gone through a significant reshuffle given the combination of (and rate of change associated with) technological advancements, the COVID-19 pandemic, socio-political events, and environmental concerns.
- As part of this reshuffle, the U.S. is facing a labor shortage which is currently below pre-pandemic levels and in-part due to factors like early retirements, net migration to the U.S. being down, increase in new business starts, and a collective \$4 trillion increase in personal savings since 2020 (note: this figure has been declining since March 2022).
- When looking across all occupations and the latest jobs data, the gap between total number of jobs available and total number of people available to fill them has grown to a point that even if every unemployed person in the country found a job right now, 4 million jobs would still be vacant.

TECHNOLOGY



"Automation's dawn and quantum's disruption herald a transformative era. We must adapt education, innovate laws, and emphasize equity in healthcare. Together, we forge a destiny where technology's advancement and humanity's values walk hand in hand."

- ChatGPT 2023



Emergent technologies like AI, 5G, quantum computing, and green technology are transforming the U.S. labor market. Research indicates that AI and automation could affect 80% of tasks in the workforce, presenting opportunities and challenges, such as mass displacement. The transition demands governmental response, with a shift towards policies like universal basic income and focus on areas such as cybersecurity and green legislation. Green technology is reshaping traditional energy dynamics, and 5G could redefine professional landscapes. The tech-driven economy is seeing growth in renewable energy, healthcare, and IT, with a growth rate of 7.7% in new jobs from 2020 to 2030, but also a decline in office roles. Educational demands for growing jobs could exacerbate disparities, affected by tuition costs and job requirements.

Automation and AI are leading to job loss in administrative roles but boosting GDP. Governments are considering retraining and universal basic income. Remote work, facilitated by 5G, is declining traditional office jobs and impacting the tech sector, prompting regulation and cybersecurity laws. Green technology is increasing renewable energy jobs and investments, leading to legislative responses. Healthcare technology is integrating AI and telemedicine, possibly reducing costs, and calling for new regulations. The Bureau of Labor Statistics projects 11.9 million new jobs from 2020 to 2030, with a growth rate of 7.7%. The workforce's potential 80% impact due to Large Language Models requires a focus on retraining and reskilling.

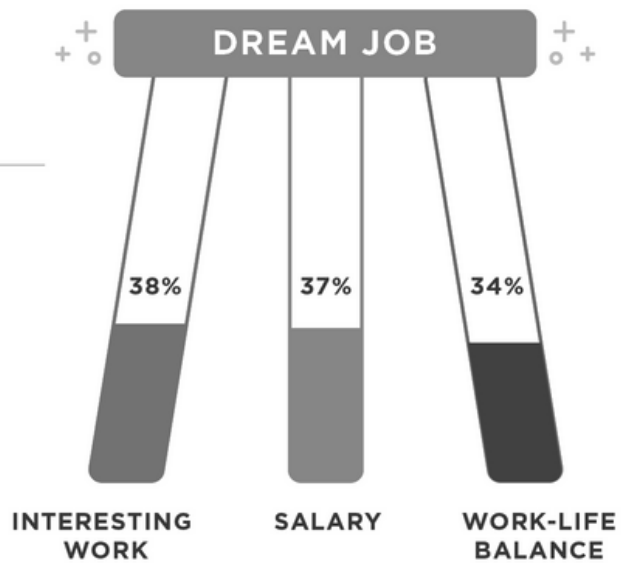
Emerging technologies are causing shifts in occupations, economy, and governance in the U.S. Automation and AI are changing job dynamics and increasing GDP. Remote work is globalizing competition and influencing the tech sector. Green technology is boosting renewable energy jobs and transforming economic dynamics. Healthcare's integration with technology is potentially reducing expenses, requiring balanced regulations. Insights include growth in renewable energy, healthcare, and IT, decline in administrative roles, and changes in education demands. Geographical differences in job availability present both challenges and opportunities. Regulations and policies are evolving to navigate this complex landscape.

SENTIMENT



What defines a job people love?

- 91% They know what's expected of them at work
- 83% Their work matters
 - 85% US
 - 85% Australia
 - 76% UK
- 73% Their job is rewarding
- 70% Their job utilizes their greatest strengths
 - 73% US
 - 70% Australia
 - 62% UK



Sentiment around occupations in the USA depends on many different variables. The most frequently mentioned are: economic conditions, individual circumstances, regional variations and wider social attitudes. Below is a list compiled to show the positive, negative and mixed sentiment.

Positive:

Opportunity: When economies expand and jobs are created, people feel hopeful about finding work as more opportunities become available to them.

Financial Security: Having a job is the foundation of financial stability.

Personal Fulfillment: Individuals find personal fulfillment and purpose through their work, leading them to have positive views of employment opportunities.

Negative Sentiment Analysis:

Job Insecurity: Factors such as temporary or precarious employment arrangements, no benefits available and gig economy employment arrangements can all contribute to feelings of job insecurity.

Underemployment: People who over qualify for their positions or fail to secure jobs that utilize all their talents experience frustration and feel powerless over their situation.

Mixed Sentiment:

Work-Life Balance: Maintaining employment brings mixed sentiments. Some may prefer jobs offering flexibility or remote work opportunities while others view these options negatively.

Career Advancement: Unhappy workers feel discouraged if they do not see opportunities for career growth and advancement within their current job market.

Generational Differences: Different generations hold differing attitudes due to expectations and experiences that vary among them. Younger generations prioritise meaningful work and flexibility while older generations prefer stability and benefits.

INFORMATION:

1. "Occupational Projections Overview, 2021–31," Bureau of Labor Statistics, April 2023, <https://www.bls.gov/opub/mlr/2023/article/occupational-projections-overview-2021-31.htm>.
2. "Occupational Employment and Wage Statistics: May 2022 OEWS Maps," Bureau of Labor Statistics, https://www.bls.gov/oes/current/map_changer.htm.
3. Jenna Ross, "The 20 Fastest Growing Jobs in the Next Decade," Visual Capitalist, September 13, 2021, <https://www.visualcapitalist.com/the-20-fastest-growing-jobs-in-the-next-decade/>.
4. Stephanie Ferguson, "Understanding America's Labor Shortage," U.S. Chamber of Commerce, August 10, 2023, <https://www.uschamber.com/workforce/understanding-americas-labor-shortage>.
5. Stephanie Ferguson, "Data Deep Dive: How Government Benefits Programs Are Contributing to the Labor Shortage," U.S. Chamber of Commerce, September 29, 2022, <https://www.uschamber.com/workforce/data-deep-dive-how-government-benefits-programs-are-contributing-to-the-labor-shortage>.
6. Howard Schneider and Dan Burns, "Pandemic Reinforced Many US Occupation Trends," Reuters, April 25, 2023, <https://www.reuters.com/markets/us/pandemic-accelerated-occupation-shift-trends-us-labor-dept-data-shows-2023-04-25/>.
7. Reade Pickert, "Half a Million US Jobs at Risk of Vanishing in Payroll Revision," Bloomberg, August 22, 2023, <https://www.bloomberg.com/news/articles/2023-08-22/half-a-million-us-jobs-at-risk-of-vanishing-in-payroll-revision#xj4y7vzkg>.
8. Neptune. (2023). Atmospherics. Retrieved from Neptune Portal.

TECHNOLOGY:

1. Eloundou, Tyna, Sam Manning, Pamela Mishkin, and Daniel Rock. "Gpts are gpts: An early look at the labor market impact potential of large language models." arXiv preprint arXiv:2303.10130 (2023).
2. Midjourney. [Artwork and Images] (2023). <https://www.midjourney.com/>
3. OpenAI. (2023). [ChatGPT response to prompts about US Occupations]. <https://chat.openai.com/?model=gpt-4>
4. Google Bard. (2023). [Bard response to prompts about US Occupations]. <https://bard.google.com/>
5. Claude AI. (2023). [Claude response to prompts about US Occupations]. <https://claude.ai/chats>

