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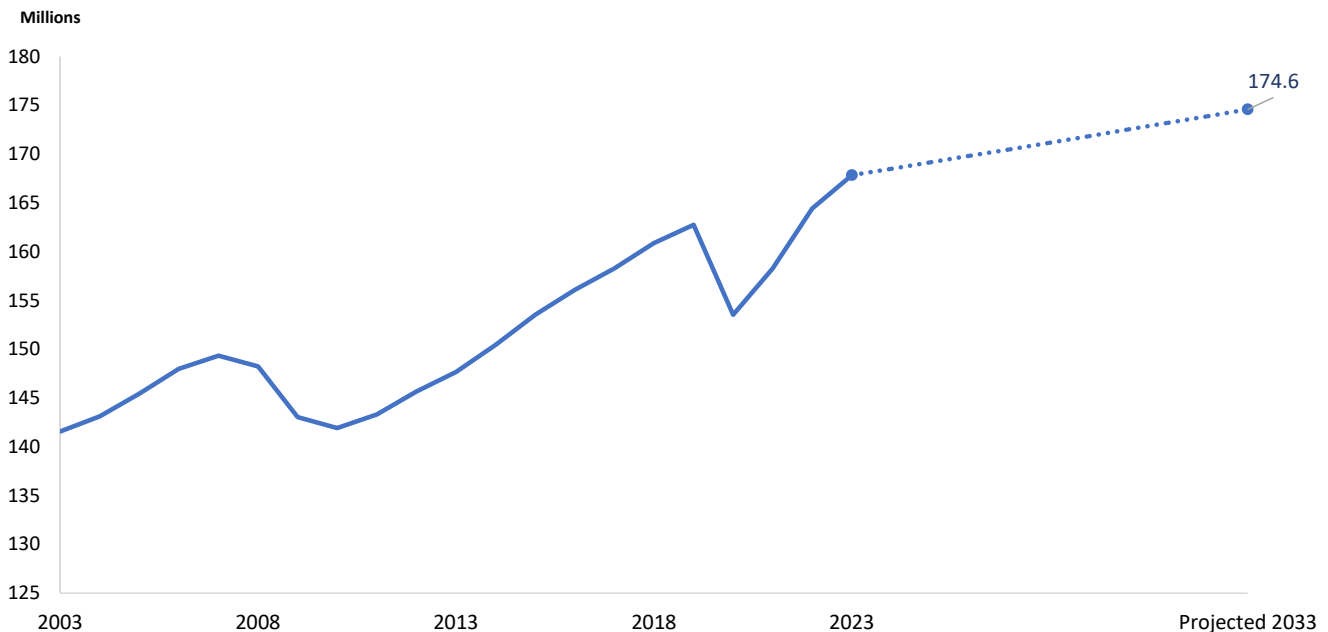
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EMPLOYMENT PROJECTIONS — 2023–2033

The U.S. economy is projected to add 6.7 million jobs from 2023 to 2033, the U.S. Bureau of Labor Statistics (BLS) reported today. Total employment is projected to increase to 174.6 million and grow 0.4 percent annually, which is slower than the 1.3 percent annual growth recorded over the 2013–23 decade. (See chart 1.)

Chart 1. Total employment, 2003–23 and projected 2023–33

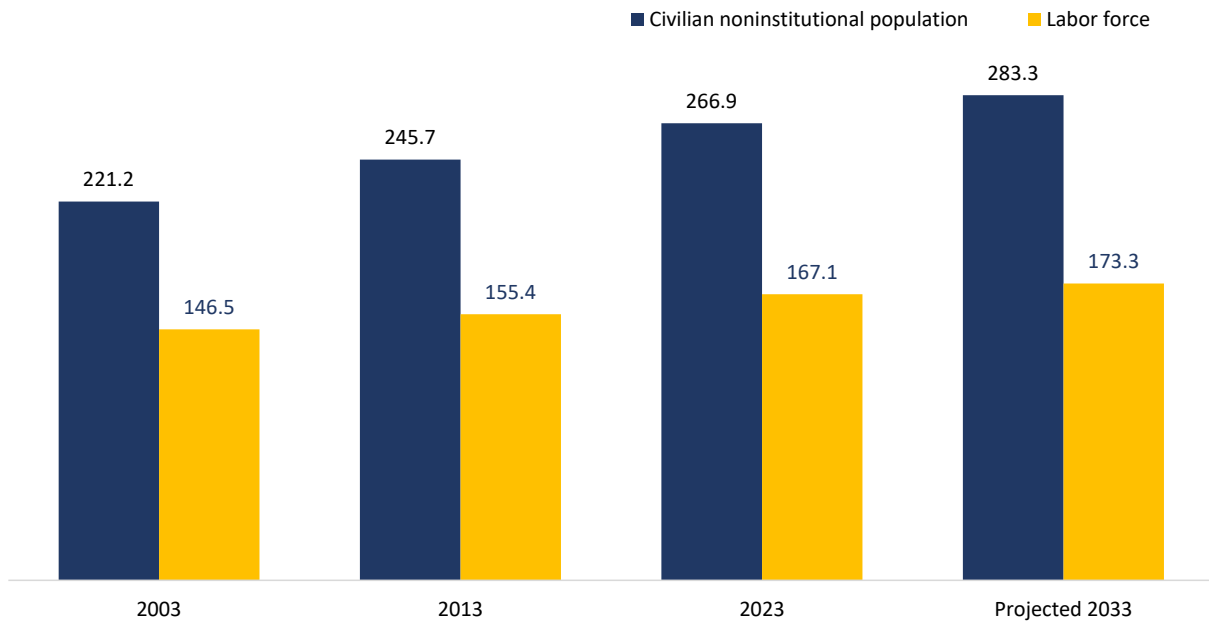


Note: Total employment includes wage and salary employment and self-employment.

Interpreting the Employment Projections

The Employment Projections (EP) program estimates specific values for projected employment levels and growth rates. However, this precision in the data does not account for the inherent uncertainty of predicting long-term changes in the labor market. Focusing on the direction and relative size of projected changes, rather than on the precise value estimates, may yield similar insights into employment trends and themes across occupations and industries.

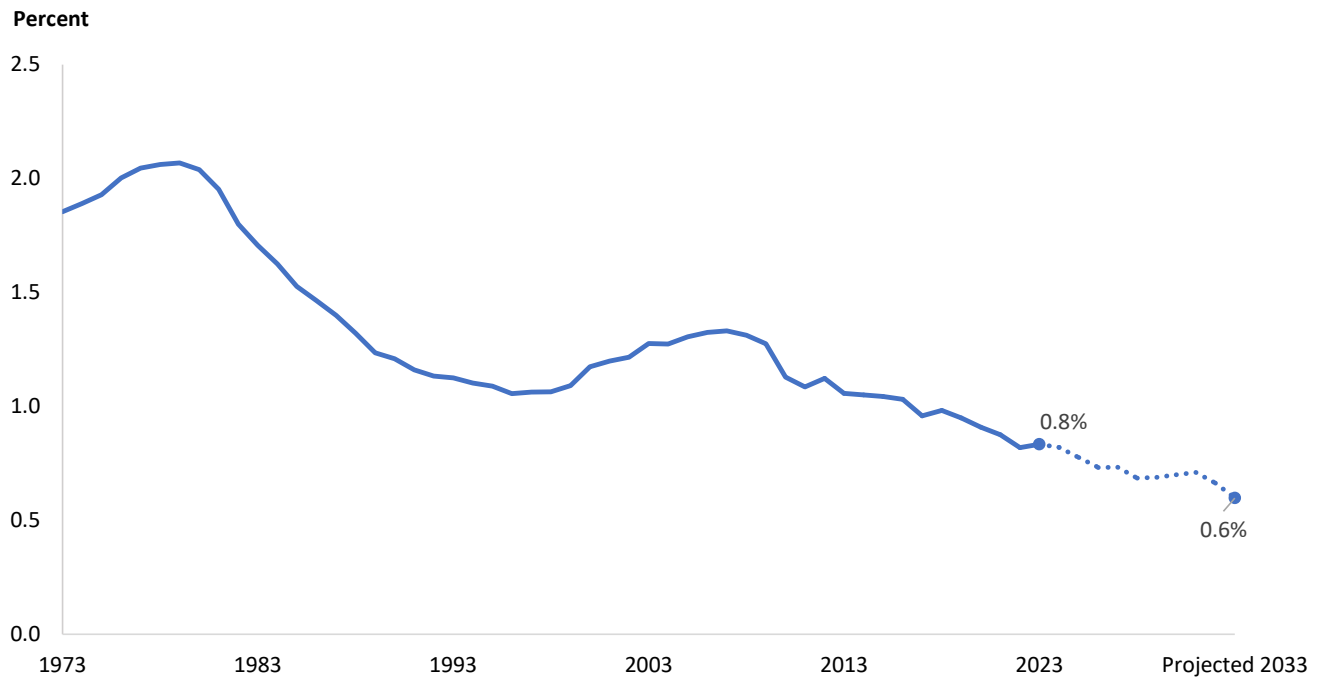
Chart 2. Population and labor force levels, 16 years and older, in millions



Population and Labor Force

Projected employment growth is driven by labor force growth, which in turn is constrained by population growth. The civilian noninstitutional population age 16 years and older is projected to increase by 16.4 million to a level of 283.3 million in 2033, which is nearly 5 million less than the increase that occurred over the 2013–23 decade. (See chart 2.)

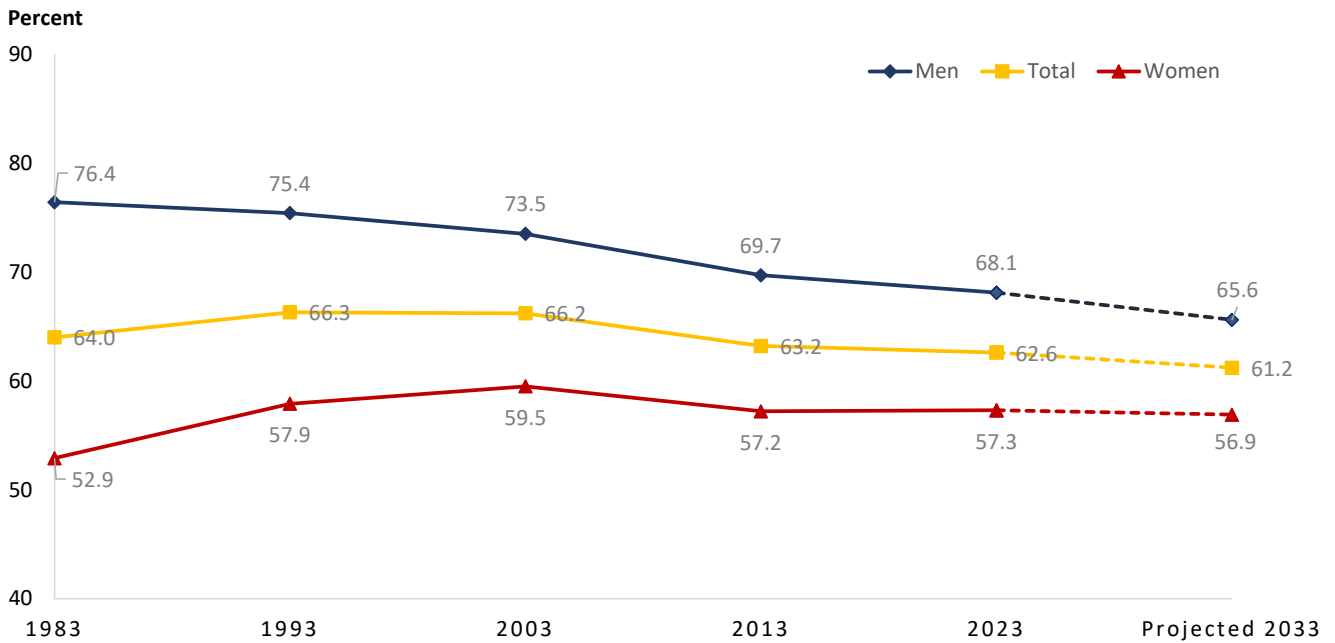
Chart 3. Population, 10-year compound annual average growth rates, 1973–2023 and projected 2023–33



Note: Reference to population in the text and charts refers to the civilian noninstitutional population, 16 years and over.

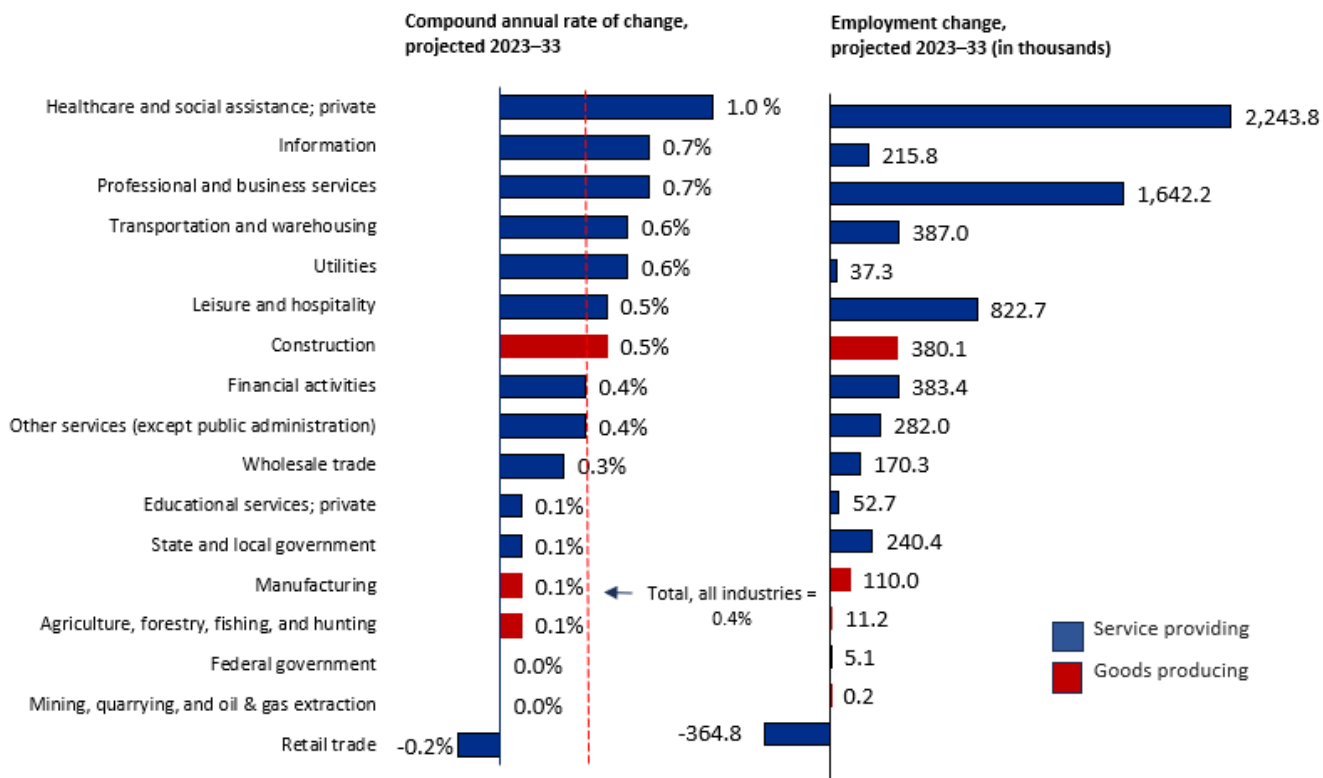
The civilian noninstitutional population is expected to grow 0.6 percent annually over the 2023–33 decade, slowing slightly from the 0.8 percent annual growth rate that occurred in the decade from 2013 to 2023. Population growth rates have been slowing for several decades; the projected 0.6 percent annual growth would, if realized, represent the slowest growth rate since BLS began publishing this data. (See chart 3.)

Chart 4. Labor force participation rate by sex, 1983–2023, and projected 2023–33



Population growth is projected to be fastest in the older age groups, who are less likely to participate in the labor force. As a result, the overall labor force participation rate is projected to fall from 62.6 percent in 2023 to 61.2 percent in 2033. The labor force participation rate for men is projected to continue a long-term decline through 2033. The rate for women, which increased throughout the 1980s and 1990s, is expected to edge down in 2033, about 3 percentage points below the peak rate that was reached in 1999. (See chart 4.)

Chart 5. Wage and salary employment change by industry sector, projected 2023–33



Industry Employment

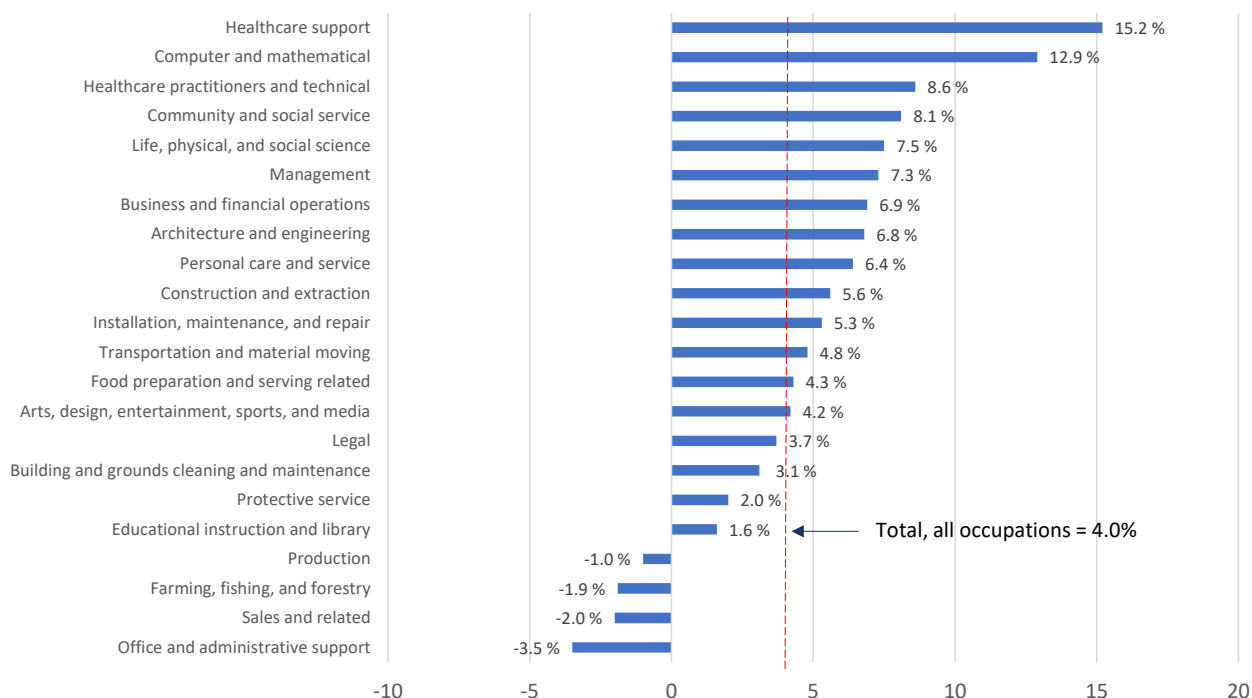
Healthcare and social assistance is projected to have the largest growth and be the fastest growing industry sector (+1.0 percent annually). Employment growth in the health care and social assistance sector is expected to be driven by both the aging population and a higher prevalence of chronic conditions, such as heart disease, cancer, and diabetes. Demand for information technology products and services, such as computer systems design services, data processing, and software, are expected to drive the demand for workers in the information sector (+0.7 percent) and professional and business services sector (+0.7 percent). (See chart 5.)

Utilities growth (+0.6 percent annually) will stem from demand for electricity related to electric vehicles and new data centers coupled with the shift towards renewable energy. Solar, wind, geothermal, and other electric power generation are the fastest growing components but are partially offset by the decline in fossil fuel electric power generation as older facilities close.

Population growth directly affects many parts of the economy. Slower projected population growth over the coming decade, particularly among the school-age population, is projected to slow demand for private educational services and state and local government, which includes public education.

Retail trade is the only sector projected to decline (-0.2 percent annually) as e-commerce continues to have a negative effect on in-person sales at retail outlets, although increased online purchases drive the growth in transportation and warehousing (+0.6 percent) as companies ship goods directly to consumers.

Chart 6. Employment change by occupational group, projected 2023–33



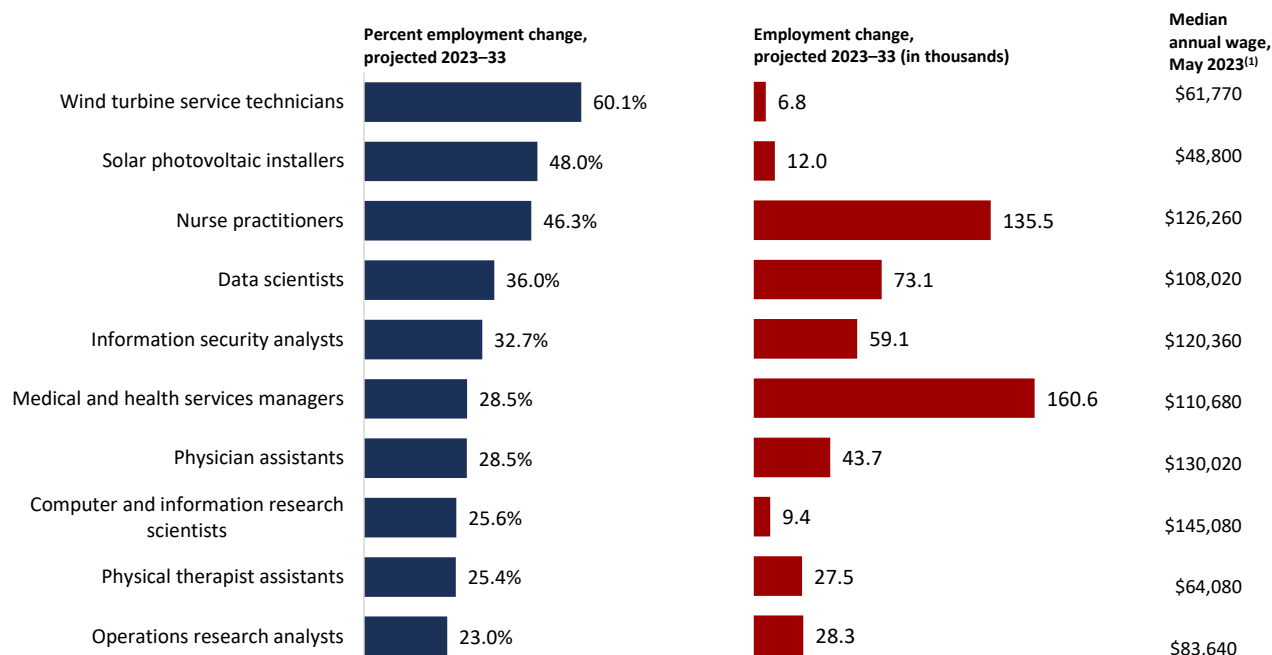
Occupational Employment

Healthcare support occupations and healthcare practitioners and technical occupations are projected to be among the fastest growing of all occupational groups, growing 15.2 percent and 8.6 percent, respectively, from 2023 to 2033. (See chart 6.) The growing elderly population, which typically has increased healthcare needs compared to younger groups, will in turn increase demand for caregiving and therapy services. Several of the healthcare occupations with the fastest projected employment growth—such as nurse practitioners and physician assistants—can assist various healthcare providers with meeting this growing demand. These occupations are key members of team-based healthcare systems and may reduce the cost of delivery of a number of healthcare services. (See chart 7.)

Similarly, the projected fast growth for community and social service occupations (+8.1 percent) will stem from more individuals seeking assistance for a variety of challenges, such as marriage and family counseling as well as substance abuse counseling and support.

Computer and mathematical occupations are projected to grow the second fastest of any occupational group, at 12.9 percent. The growth of computer and mathematical occupations is expected to stem from demand for upgraded computer services, continued development of artificial intelligence (AI) solutions, and an increasing amount of data available for analysis. In addition, the number and severity of cyberattacks and data breaches on U.S. businesses is expected to lead to greater demand for information security analysts.

Chart 7. Ten fastest growing occupations, projected 2023–33



(1) Data are from the Occupational Employment and Wage Statistics (OEWS) program, U.S. Bureau of Labor Statistics. Wage data cover non-farm wage and salary workers and do not cover the self-employed, owners and partners in unincorporated firms, or household workers.

Technological advancements may also lead to increased productivity for some occupations. The growth of e-commerce as well as advances in technology are expected to limit demand for sales workers leading to employment declines. Similarly, automated systems and related technology, including AI, are expected to contribute to declines in employment of office and administrative support workers.

Construction and extraction occupations and installation, maintenance, and repair occupations are projected to grow 5.6 percent and 5.3 percent, respectively. These include two renewable energy generation-related occupations—wind turbine service technicians and solar photovoltaic installers—which are projected to be the fastest growing occupations over the 2023–33 decade. The increased demand for electricity is related to growth in electric vehicles and new data centers. Although these occupations are expected to be fast growing, the two occupations are projected to add fewer than 20,000 jobs combined.

Occupational Skills

BLS has introduced a new data product beginning with the 2023–33 projections that provides information about important skills by occupation. This data provides users with additional information about skills and the ability to view skills data together with the occupational projections.

More Information

- Detailed information on the 2023–33 labor force and macroeconomy projections and the 2023–33 industry and occupation projections will appear in separate *Monthly Labor Review* articles, to be published later in 2024.

- The *Occupational Outlook Handbook (OOH)* includes information about more than 500 detailed occupations in over 300 occupational profiles, covering about 4 out of 5 jobs in the economy. Each profile features the 2023–33 projections, along with assessments of the job outlook, work activities, wages, education and training requirements, and more.
- The *OOH* is available online at www.bls.gov/ooh. A mobile version of the *OOH* is available for iOS (<https://apps.apple.com/us/app/careerinfo/id1476300397>) and Android (https://play.google.com/store/apps/details?id=gov.dol.ooh_occupational_handbook&hl=en_US&gl=US) devices.
- Field of degree pages are available online at www.bls.gov/ooh/field-of-degree/home.htm.
- Beginning with the 2023–33 projections cycle, BLS introduced a new set of tables providing information on skills by occupation. A *Monthly Labor Review* article will be available later in 2024 that describes the new tables, the methodology, and an analysis of the data.
- Descriptions of the classification systems and projections methods used can be found on the Employment Projections Methodology Overview page at <https://www.bls.gov/emp/methods-overview.htm>.
- Tables with detailed, comprehensive projections data are available online at www.bls.gov/emp/tables.htm.
- Definitions for terms used in this news release are available in the BLS Glossary at www.bls.gov/bls/glossary.htm.

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Technical Note

BLS publishes projections for the labor force, the macroeconomy, industry output and employment, and occupational employment. More information is available online:

- Labor force:
<https://www.bls.gov/emp/data/labor-force.htm>
- Aggregate economy:
<https://www.bls.gov/emp/data/aggregate-economy.htm>
- Industry output and employment:
<https://www.bls.gov/emp/data/industry-out-and-emp.htm>
- Occupational employment:
<https://www.bls.gov/emp/data/occupational-data.htm>

The projections data provide a potential scenario for changes in the economy over a decade. The projections focus on long-term structural trends of the economy and do not try to anticipate future business cycle activity. To meet this objective, specific assumptions are made about the labor force, macroeconomy, industry employment, and occupational employment. The projections are not intended to be a forecast of what the future will be but instead are a description of what would be expected to happen under these specific assumptions and circumstances. When these assumptions are not realized, actual values will differ from projections.

Labor supply and demand assumptions

BLS projects the labor force (labor supply) as an input into the macroeconomic projections. BLS also assumes that the economy will be at full employment in the projected year, with the labor market at equilibrium. That is, employment in the projected year will be roughly equivalent to the projected labor force minus a level of frictional unemployment (the relationship is not exact because labor force is a count of people, while employment is a count of jobs, and individual

people can hold more than one job). BLS does not project an overall labor shortage or surplus because in the BLS projections data framework, labor supply (the labor force) and labor demand (employment) are linked – a projected increase in labor supply necessarily results in an increase in employment.

Technological progress assumptions

As with many variables, BLS assumes that labor productivity and technological progress will be in line with the historical experience. That is, productivity will increase and technology will progress, but because the BLS method involves analyzing historical relationships in the data and projecting them forward, the future is assumed to behave comparably to the past. In a future state where technology advances much more rapidly than it has historically, it is unlikely that historical relationships would hold, and therefore BLS projection methods are unlikely to yield reasonable results.

Recent developments in artificial intelligence (AI) have raised the prospect that the future rate of technological progress could be higher than in the past. BLS projection methods could reflect this in a faster rate of labor productivity growth. This would in turn result in a higher level of GDP growth (maintaining the BLS full employment assumption). If this higher rate of productivity growth is uniform across all industries, there is no impact on BLS employment projections – output is higher, productivity is higher, and employment is the same. However, a higher aggregate level of productivity growth could also be reflected differentially in industry productivity. BLS methods could capture this, but BLS has no data on which to base these differential productivity impacts. BLS therefore chooses to present a scenario with technological progress in line with historical patterns, which allows the projections to be grounded by historical data relationships rather than introducing adjustments that would be highly speculative.

BLS does conduct research on factors that are expected to impact employment, particularly those

which may not be reflected in historical data, such as new technologies. However, BLS generally applies adjustments based on this research conservatively, where there is convincing evidence for a change. Developments in AI are proceeding rapidly, and the uncertainty about potential impacts remains very high. Projections are always uncertain, and the exact impact of developments such as new technologies on the labor market ten years out is impossible to predict with precision. As a result, BLS releases new projections annually to incorporate new data, research, and analysis.

The historical record does show that technology impacts occupations, but that these changes tend to be gradual, not sudden. Occupations are complex combinations of tasks, and even when technology advances rapidly, it can take time for employers and workers to figure out how to incorporate new technology into business practices. New technologies may change the composition or weighting of tasks performed by an occupation even if they do not impact overall demand for an occupation. For more details on the historical record, see Michael J. Handel, "Growth trends for selected occupations considered at risk from automation," *Monthly Labor Review*, U.S. Bureau of Labor Statistics, July 2022.

For more information, visit the Employment Projections Methodology page online at <https://www.bls.gov/opub/hom/emp/home.htm>.

Users and Uses

The BLS projections are used by high school and college students, their teachers and parents, jobseekers, career counselors, and guidance specialists to determine jobs in demand. The projections also are used by state workforce agencies to prepare state and area projections that, together with the national projections, are widely used by policymakers to make decisions about education and training, funding allocations, and program offerings. These projections of jobs in demand help improve the alignment between education and training and the hiring needs of employers. In addition, other federal agencies, researchers, and academics use the projections to understand trends in the economy and labor market.

Projections of industry and occupational employment are prepared by each state, using input from the BLS national projections. State projections data are available at Projections Central <https://www.projectionscentral.org>.

Frequently asked questions about the employment projections are online at <https://www.bls.gov/emp/frequently-asked-questions.htm>.