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EMPLOYMENT PROJECTIONS — 2021-2031

The U.S. economy is projected to add 8.3 million jobs from 2021 to 2031, the U.S. Bureau of Labor Statistics (BLS) reported today. Total employment is projected to increase from 158.1 million to 166.5 million and grow 0.5 percent annually, which is slower than the 1.0 percent annual growth recorded over the 2011–21 decade. (See chart 1.)



The 2021–31 projections use 2021 annual average employment levels as the base year. The 2021 annual average levels do not reflect much of the employment recovery and reallocation that has already occurred in the aftermath of the COVID-19 pandemic and the accompanying recession, given total employment continued to grow rapidly through the first half of 2022. As a result, total employment for the 2021–31 projections, and projected growth in many sectors, reflects fast projected growth resulting from low base year employment levels. However, the pandemic also has been a catalyst for some structural changes in demand for certain goods and services, which are expected to affect long-term demand for employment in a select group of industries and occupations.

Occupational Outlook Handbook

The BLS projections are the foundation of the *Occupational Outlook Handbook (OOH)*, one of the nation's most widely used career information resources. The *OOH* reflects BLS employment projections for the 2021–31 decade. The updated *OOH* is available online at www.bls.gov/ooh.

Effects of the COVID-19 pandemic on the 2021-31 projections

The COVID-19 pandemic prompted an economic recession from February 2020 to April 2020, leading to substantial declines in output and employment. While the recession only lasted a few months, the pandemic persisted through 2021, continuing to disrupt economic activity, prevent or discourage individuals from re-entering the labor force, and impact other economic conditions that affect employment. The economy rebounded in 2021, regaining approximately 4.6 million jobs; however, this equates to only about half of the jobs that were lost from 2019 to 2020. As a result, the 2021 annual average employment level, which forms the baseline for the 2021–31 projections, remained well below pre-pandemic levels. Employment in a majority of sectors continued to recover through the first half of 2022, and the 2021–31 projections do not reflect the employment recovery and reallocation that occurred during that time period.

Some industries that have been disproportionately affected by the COVID-19 pandemic have lower base-year values and are expected to experience cyclical recoveries in the early part of the 2021–31 decade, as industry output and employment normalize and return to their long-term growth trends, leading to higher projected employment growth. (See the Technical Note for discussion of the difference between cyclical and structural changes.) Projected rapid growth for industries in which employment fell in 2020 and remained low in 2021 also is expected to result in strong growth for the occupations employed by those industries. For instance, many movie theaters were not operating at full capacity in 2021, resulting in a lower employment level in the motion picture and video exhibition industry in 2021 than in pre-pandemic recent history. This industry is projected to grow 70.5 percent over the 2021–31 decade, on account of a cyclical recovery in employment rather than a long-term structural increase in demand for motion picture and video exhibition. In turn, motion picture projectionists; and ushers, lobby attendants, and ticket takers—occupations highly concentrated in the industry—are also expected to experience strong cyclical growth.

In addition, some industries and occupations are projected to have altered long-term structural demand arising from economic changes spurred by the pandemic. For example, many computer occupations are expected to have elevated long-term demand, in part due to increased business demand for telework computing infrastructure and information technology (IT) security.

Data users should therefore bear in mind that fast growth rates in this projections set can be cyclically driven, structurally driven (in the long term), or driven by a combination of cyclical and structural factors.



The leisure and hospitality sector is projected to experience the fastest employment growth of all sectors, owing mostly to the low base point in 2021. (See chart 4.) The healthcare and social assistance sector is projected to create the most jobs over the 2021–31 decade, growing in tandem with the segment of the population that is aged 65 and over. This should, in turn, boost demand for various healthcare occupations, especially those involved in caring for the elderly and those expected to benefit from the increased prevalence of team-based healthcare.

Total projected employment growth is conditional upon expected growth of the economy and of the labor force, both of which can be influenced by changes in the population. Real Gross Domestic Product (GDP) is projected to grow at a 2.1 percent annual rate from 2021 to 2031, slightly faster than in the prior decade. Growth of the civilian noninstitutional population is projected to slow to an annual rate of 0.7 percent, while the labor force is projected to grow at a 0.5 percent annual rate, about the same pace as that of the 2011–21 decade.

Highlights of the BLS 2021–31 projections for the labor force, macroeconomy, industry employment, and occupational employment are included below.

Population and Labor Force

• The civilian noninstitutional population is projected to increase by 19.6 million to a level of 281.0 million in 2031, which is less than the 21.8 million increase that occurred over the 2011–21 decade. The civilian noninstitutional population is expected to grow 0.7 percent annually over the 2021–31 decade, slowing from the 0.9 percent annual growth rate registered in the decade from 2011 to 2021. While population growth has been slowing for several decades, the projected 0.7 percent annual growth represents one of the slowest growth rates in the data series' history. (See chart 2.)



- The expected slowdown in population growth over the 2021–31 decade is primarily attributed to lower fertility rates in recent decades compared with rates seen in the 1960s and early 1970s, as well as to reduced net international migration in the last two decades in comparison to that of preceding decades.
- Slower projected growth in the population is expected to constrain growth in the civilian labor force over the projections period. The civilian labor force is expected to rise to 168.9 million in 2031 from 161.2 million in 2021, a 7.7 million increase. This translates to projected annual growth of 0.5 percent, the same rate as that of the 2011–21 decade but slower than rates in years prior to 2011.
- The labor force participation rate is projected to fall from 61.7 percent in 2021 to 60.1 percent in 2031. An aging population, represented by a greater share of individuals over the age of 65, is the principal factor driving the decline in the labor force participation rate over the 2021–31 decade.
- At the same time, the participation rates of the 55-to-64 and 65-plus age groups are projected to climb higher over the projections decade as older workers increasingly stay in the workforce. (See chart 3.)

Macroeconomy

- Real GDP is projected to grow 2.1 percent annually over the 2021–31 decade. This is slightly higher than the two previous decades' respective annual rates of 2.0 percent and 1.8 percent, but much lower than the 3.0 percent and above rates seen in the 1980s and 1990s.
- Labor productivity growth is projected to accelerate to 2.2 percent annually—within its long-term historic range. This is up significantly from 1.3 percent annual productivity growth in the prior decade.



Industry Employment

- Total employment is projected to grow 0.5 percent annually from 158.1 million in 2021 to 166.5 million in 2031. Employment grew at a 1.0 percent annual rate from 2011–21.
- The healthcare and social assistance sector is projected to add about 2.6 million jobs from 2021 to 2031, the most of any sector. (See chart 4.) Within this sector, the individual and family services industry is projected to add the most employment over the projections period—approximately 850,000 jobs—and is expected to have the fastest annual employment growth of all healthcare and social assistance industries at 2.8 percent. Employment growth in this industry, as well as other healthcare and social assistance industries, is expected to be driven by the aging baby-boom population and a higher prevalence of chronic conditions.
- Employment in several sectors remained hampered in 2021 by surges in COVID-19 cases, public concern about viral transmission, mitigation measures, and by employment reallocation, resulting in low base year employment for the 2021–31 projections. These sectors, including leisure and hospitality, and other services—which include repair and maintenance services and personal care services—are projected to be among the fastest growing over the 2021–31 decade.
- Nearly three quarters of the jobs lost in leisure and hospitality during the COVID-19 pandemic in 2020 had yet to be recovered in 2021. Consequently, leisure and hospitality is projected to grow the fastest among all sectors over the 2021–31 decade at an annual rate of 1.3 percent, reflecting cyclical recovery. Seven of the top 20 fastest growing industries are in the leisure and hospitality sector. In addition, the food services and drinking places industry is expected to have the largest employment increase of any industry, adding about 1.3 million jobs over 2021–31.



- Demand for professional and business services is expected to increase over the projections period, driven by businesses' need for technical expertise in areas such as IT solutions and cybersecurity, management, marketing research, and other consulting and technical services. This sector is projected to see the third-largest employment increase over the 2021–31 decade.
- Retail trade is projected to lose the most jobs of any sector over 2021–31. Brick-and-mortar retail establishments are expected to continue to contend with fiercer competition from online retailing.

Occupational Employment

• Healthcare support occupations are projected to grow the fastest of all occupational groups, at 17.8 percent from 2021–31. (See chart 5.) Projected fast-growing occupations in this group include physical therapist assistants, home health and personal care aides, and occupational therapy assistants. In addition to its projected rapid growth, home health and personal care aides is also projected to experience the largest increase in new jobs of any occupation over the 2021–31 projections period. It is projected to gain approximately 924,000 jobs, reaching an employment level of 4.6 million in 2031, which would make it the largest occupation in the economy. Demand for caregiving services and therapy services is expected to rise rapidly in response to the growing elderly population, which typically has elevated healthcare needs compared to younger groups.



- The computer and mathematical occupational group is projected to experience much faster than average employment growth of 15.4 percent through 2031. Expected strong demand for IT services, including cybersecurity services and cloud computing, will fuel demand for computer occupations. For mathematical occupations, expected robust growth in data—in part related to Internet of Things (IoT) and the connectivity of consumer products and industrial machinery—and demand for data to be collected and analyzed are main factors behind strong projected employment growth. Three computer and mathematical occupations are featured among the ten fastest growing occupations: data scientists, information security analysts, and statisticians. In addition, software developers are expected to see the third-largest increase in jobs of any occupation over the 2021–31 decade.
- Personal care and service occupations and food preparation and serving related occupations are projected to be the third and fourth fastest growing occupational groups, respectively. Many of these occupations were highly affected by the COVID-19 pandemic in 2020 and continued to be impacted in 2021. Consequently, occupations within these groups, such as restaurant cooks, are expected to experience strong cyclical growth.
- Some employment lost during the pandemic and projected to be recovered over the projections decade has already been recuperated, as employment grew rapidly throughout the first half of 2022. As a result, some occupational groups have fast projected growth that reflects short-term recovery rather than long-term expected gains, such as the food preparation and serving related occupational group, which had already realized a notable share of its projected 2021–31 employment change by mid-2022. (See chart 5.)
- Three occupational groups—office and administrative support occupations, production occupations, and sales and related occupations—are projected to lose jobs over the 2021–31 decade. Sixteen of the 20 occupations with the largest declines in employment levels over 2021–31 are classified in one

of these three groups. The automation of tasks is a main factor behind the projected employment declines of many of these occupations. Cashiers, whose tasks can largely be replaced by self-checkout, is projected to lose the most jobs of all occupations, while word processors and typists is projected to experience the sharpest drop in employment over the projections period.

• Nurse practitioners is projected to experience the fastest employment growth of all occupations, with projected growth of 45.7 percent. (See chart 6.) Healthcare facilities are increasingly using teambased healthcare models, which utilize nurse practitioners, physician assistants, and other healthcare practitioners to provide patient care that would otherwise be provided by a doctor.

More Information

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 2021–31 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.
- Field of degree pages are available online at www.bls.gov/ooh/field-of-degree/home.htm.
- Detailed information on the 2021–31 projections will appear in the *Monthly Labor Review* in Fall 2022.
- Tables with detailed, comprehensive statistics used in preparing the projections 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.

If you are deaf, hard of hearing, or have a speech disability, please dial 7-1-1 to access telecommunications relay services.

Technical Note

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

- Labor force: www.bls.gov/emp/data/labor-force.htm
- Macroeconomy: www.bls.gov/emp/data/aggregate-economy.htm
- Industry employment: www.bls.gov/emp/data/industry-out-andemp.htm
- Occupational employment: www.bls.gov/emp/data/occupational-data.htm

The projections data provide an overview of expected 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. Cyclical change refers to short-term business cycle fluctuations around a trend. For example, employment may decline in a particular industry during a recession (cyclical decline) and grow during the recovery immediately following the recession (cyclical growth), eventually returning to the long-term trend level. Structural change refers to the long-term trend and in the case of employment reflects changes in the allocation of employment by industry and occupation. Structural changes in industry or occupational employment are based on factors such as changes in consumer preferences that affect the demand for goods and services or new technology that affects production practices.

To maintain a focus on long-term trends, BLS makes specific assumptions about the labor force, macroeconomy, industry employment, and occupational employment. Critical to the production of these projections is the assumption of full employment for the economy in the projected year. The projections are not intended to be a forecast of what the future will be but instead to describe what is expected under these specific assumptions and circumstances. When these assumptions are not realized, actual values will differ from projected values. The difference between projected changes in the labor force and in employment does not necessarily imply a labor shortage or surplus. The BLS projections assume labor market equilibrium; that is, one in which labor supply meets labor demand except for some level of frictional unemployment. In addition, the employment and labor force measures use different definitional and statistical concepts. For example, employment is a count of jobs, and one person may hold more than one job. Labor force is a count of all individuals who are either employed or unemployed and actively looking for work, and a person is counted only once regardless of how many jobs he or she holds.

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

Frequently asked questions about the employment projections are online at www.bls.gov/emp/frequently-asked-questions.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 www.projectionscentral.org.