



Arkansas Division of
Workforce Services



This report is in accordance with Act 613 of 2017, to create the Arkansas Workforce Challenge Scholarship.

Methodology

The following is a brief overview of the methods used to produce short-term employment projections in Arkansas.

Data Development

Data development is accomplished by using the following sources: *The Quarterly Census of Employment and Wages (QCEW) program.*

This source provides all the covered employment for Arkansas. A firm or business is considered covered if it meets the guidelines established under the Unemployment Insurance Law.

The Current Employment Statistics (CES) Survey. This source provides employment information for non-covered establishments, which are railroads, the Federal Work Study Program, churches, religious-based schools, elected officials, commissioned insurance agents, as well as other establishments not reporting to the Quarterly Census of Employment and Wages (QCEW) program.

Agriculture employment. This is obtained from the Census of Agriculture. The Census of Agriculture is taken every five years in years ending in two and seven. Information from the QCEW reports is used to make estimates for years following the Census year until the next Census. Other information from the Bureau of Economic Analysis (BEA) is used to supplement agriculture employment.

Other Non-Covered Employment. Data on other Agriculture employment, specifically NAICS 113, 114, and 115 as well as Private Households are supplemented using data from the Bureau of Economic Analysis.

Industry Projections

A monthly time series is developed at the three- and four-digit NAICS level from the three sources listed above with a time period of January 1990 to March of the base year. The industry projections are produced using the Projections Suite software, authorized by the U.S. Department of Labor and developed by the Utah Department of Workforce Services. The software has several components to deal with industry projections. First, it allows the analyst to choose from a list of national and state variables to determine a state leading index, which is a list of variables that when factored together, helps predict changes in the state employment figures. National economic variables are also provided. State variables are labor force data, such as civilian labor force and unemployment rate, major industry division (CES) totals, nonfarm employment, building permits, manufacturing hours, natural gas prices, air passenger data, and a composite index. The software uses a series of statistical models to forecast employment through eight quarters. Using trend and seasonal factors, as well as business cycle patterns, a forecast is chosen based on established statistical methodology. Projections are adjusted to reflect current or near future events in the labor market such as closures, layoffs, openings, and expansions.

Occupational Projections

Occupational projections are produced by merging industries and occupations together into an industry-occupational matrix. This matrix is a table showing the occupational pattern of each industry (i.e., the ratios of employment by occupation in a specific industry). The statewide matrix is based on the Bureau of Labor Statistics' Occupational Employment and Wage Statistics (OEWS) survey and uses a Standard Occupational Classification (SOC) code for each occupation. It uses the OEWS semiannual survey to establish state staffing patterns and is provided through the Local Employment and Wage Information System (LEWIS). National staffing patterns are used where state patterns do not exist.

The occupational employment projections contained in this publication were created using the Projections Suite software, authorized by the U.S. Department of Labor and developed by the Utah Department of Workforce Services. The software applies occupational change factors to the projected patterns to form a projected matrix. Also, using national self-employment staffing patterns, the system generates base and projected employment for self-employed workers. Patterns and projections for Unpaid Family Workers are based on Census numbers.

Data Limitations

The projections are estimates based on historical data. It is important not to rely on these projections as the actual employment numbers that will occur. While every attempt is made to incorporate current and near future events, such as business closings, corporate layoffs, openings, and expansions, it's not possible to know everything that might happen. Events that may take place after the projection period or announcements concerning closings, layoffs, openings, and expansions known after projections were completed are not reflected in the forecasts. Also, legislative policy could cause employment to change. Events such as these will likely cause the actual employment numbers to vary significantly from these projections.

It is important to look at both net growth and percent growth when looking at projections. Generally, industries or occupations with small employment will have higher growth rates than those with larger employment, but these industries may only add a few employees over the projection period. When examining occupational projections, it is important to look at all types of job openings, which include growth, exits, and transfers. Even if an occupation is in decline, it still may have openings to replace workers who leave the profession due to changing jobs or due to a person retiring or leaving the workforce for some other reason.

Top 5 Manufacturing/Industry Occupations

SOC Code	SOC Title	2020 Estimated Employment	2022 Projected employment	Numeric Change	Percent Change	Exits	Transfers	Total Openings	Recommended Education
53-3032	Heavy and Tractor-Trailer Truck Drivers	39,567	39,287	-280	-0.71%	3,231	4,718	3,835	Postsecondary Non-Degree Award
19-4031	Chemical Technicians	666	685	19	2.85%	20	99	138	Associate's Degree Award
19-4010	Agricultural and Food Science Technicians	485	490	5	1.03%	24	81	110	Associate's Degree Award
19-4071	Forest and Conservation Technicians	318	325	7	2.20%	19	52	78	Associate's Degree Award
51-4111	Tool and Die Makers	539	516	-23	-4.27%	39	57	73	Postsecondary Non-Degree Award

Top 5 Health Care Occupations

SOC Code	SOC Title	2020 Estimated Employment	2022 Projected employment	Numeric Change	Percent Change	Exits	Transfers	Total Openings	Recommended Education
31-1131	Nursing Assistants	18,760	18,621	-139	-0.74%	2,005	1,818	3,684	Postsecondary Non-Degree Award
29-2061	Licensed Practical and Licensed Vocational Nurses	12,209	12,262	53	0.43%	796	884	1,733	Postsecondary Non-Degree Award
31-9092	Medical Assistants	3,986	4,099	113	2.83%	309	493	915	Postsecondary Non-Degree Award
31-9091	Dental Assistants	2,756	2,822	66	2.39%	240	319	625	Postsecondary Non-Degree Award
31-2021	Physical Therapist Assistants	1,364	1,397	33	2.42%	108	178	319	Associate's Degree

Top 3 Information Technology Occupations*

SOC Code	SOC Title	2020 Estimated Employment	2022 Projected employment	Numeric Change	Percent Change	Exits	Transfers	Total Openings	Recommended Education
15-1232	Computer User Support Specialists	3,846	3,892	46	1.20%	136	385	567	Some College, No Degree
15-1231	Computer Network Support Specialists	1,674	1,683	9	0.54%	59	167	235	Associate's Degree
15-1257	Web Developers and Digital Interface Designers	725	736	11	1.52%	27	71	109	Associate's Degree

*The majority of IT jobs require a bachelor's degree or higher to be fully proficient according to the Bureau of Labor Statistics. There were only three IT occupations that required the completion of a program of study that lead to an associate's degree or a certificate program.