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In-Demand Occupations

Industry

Health Care

Information Technology

adws
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 Statistics (OES) survey and uses a Standard Occupational Classification (SOC) code for each occupation. It uses the OES 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 both replacement and growth openings. Even if an occupation is in decline, it still may have openings to replace workers who leave the profession for various reasons.

Top 5 Manufacturing/Industry Occupations

SOC Code	SOC Title	2018 Estimated Employment	2020 Projected employment	Numeric Change	Percent Change	Exits	Transfers	Total Openings	Recommended Training Path
53-3032	Heavy and Tractor-Trailer Truck Drivers	34,897	36,115	1,218	3.49%	3,011	4,461	8,690	Postsecondary non-degree award
49-2011	Computer, Automated Teller, and Office Machine Repairers	1,245	1,281	36	2.89%	83	161	280	Some college, no degree
51-4111	Tool and Die Makers	1,165	1,197	32	2.75%	93	128	253	Postsecondary non-degree award
17-3023	Electrical and Electronics Engineering Technicians	622	639	17	2.73%	40	66	123	Associate's degree
19-4031	Chemical Technicians	444	449	5	1.13%	30	53	88	Associate's degree

Top 5 Health Care Occupations

SOC Code	SOC Title	2018 Estimated Employment	2020 Projected employment	Numeric Change	Percent Change	Exits	Transfers	Total Openings	Recommended Training Path
31-1014	Nursing Assistants	18,698	19,200	502	2.68%	2,302	1,915	4,719	Postsecondary non-degree award
29-2061	Licensed Practical and Licensed Vocational Nurses	12,687	12,922	235	1.85%	903	890	2,028	Postsecondary non-degree award
31-9092	Medical Assistants	3,372	3,558	186	5.52%	304	426	916	Postsecondary non-degree award
31-9091	Dental Assistants	2,765	2,868	103	3.73%	287	322	712	Postsecondary non-degree award
29-2041	Emergency Medical Technicians and Paramedics	2,421	2,491	70	2.89%	86	202	358	Postsecondary non-degree award

Top 3 Information Technology Occupations*

SOC Code	SOC Title	2018 Estimated Employment	2020 Projected employment	Numeric Change	Percent Change	Exits	Transfers	Total Openings	Recommended Training Path
15-1151	Computer User Support Specialists	4,062	4,179	117	2.88%	167	424	708	Some college, no degree
15-1152	Computer Network Support Specialists	1,863	1,936	73	3.92%	77	196	346	Associate's degree
15-1134	Web Developers	463	482	19	4.10%	18	48	85	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.