

Methodology and Definitions

Data Sources

The wage data in this report come from the unemployment insurance wage records maintained by the Arkansas Division of Workforce Services. Unemployment insurance is a joint state-federal program in which employers in Arkansas send in data every quarter on who works for them and how much money they earn, and pay a small insurance fee that helps pay for unemployment insurance. Note that this data system does not include employment outside of Arkansas, federal or military jobs, or any employed Arkansans who are not reported to the Arkansas Division of Workforce Services.

The data on who graduates from where, and what they studied, comes from the Arkansas Division of Higher Education.

Colleges/Universities Included

Arkansas' A.C.A. § 6-60-105 requires that this report include graduates from "state-supported institutions of higher education." For this report, we were able to include data on most private institutions as well.

The institutions covered in this report thus include:

Arkansas Northeastern College	Philander Smith College
Arkansas State University Beebe	Phillips Community College of the U A
Arkansas State University Jonesboro	South Arkansas Community College
Arkansas State University Mountain Home	Southeast Arkansas College
Arkansas State University Newport	Southern Arkansas University - Magnolia
Arkansas Tech University	Southern Arkansas University - Tech
Baptist Health College Little Rock	U A Community College at Batesville
Black River Technical College	U A Community College at Hope
College of the Ouachitas	U A Community College at Morrilton
Cossatot Community College of the U A	University of Arkansas at Little Rock
East Arkansas Community College	University of Arkansas at Monticello
Harding University	University of Arkansas at Pine Bluff
Henderson State University	University of Arkansas Fayetteville
Jefferson School of Nursing	University of Arkansas for Medical Sciences
John Brown University	University of Arkansas - Fort Smith
National Park College	University of Arkansas - Pulaski Technical College
North Arkansas College	University of Arkansas - Rich Mountain
Northwest Arkansas Community College	University of Central Arkansas
Ozarka College	

Education Levels

The report often compares earnings and employment at different degree “levels.” Here’s a chart showing what is meant by each level:

Education Level	What it includes	Notes
Certificate	Certificate of Proficiency Technical Certificate Advanced certificate	Technical certificates achieved after high school (such as electrical and power transmission installation, nursing assistants, or fire protection)
Associate	Associate Degree	2-year degrees
Bachelor	Baccalaureate Degree Post-baccalaureate certificate	4-year college degrees, plus certain additional specialized certificates beyond a bachelor’s degree (such as information technology, gifted and talented education, dyslexia therapy, and more)
Master	Master’s Degree Specialist degree	Master’s degrees that typically take 1 or 2 years beyond a bachelor’s degree. For purposes of this report, this category includes the MBA degree.
Doctoral	Doctoral degree First professional degree Post-first professional certificate Post-first professional degree Doctor’s Degree – Research/Scholarship Doctor’s Degree – Professional Practice Doctor’s Degree – Other	This includes medical degrees, Ph.Ds., and law degrees.

First-year wages

This means the first full calendar year after someone graduates from college or a certificate program. For example, if someone graduates in 2018 (which typically happens around May/June), their first-year earnings will be what they earned from Jan. 1, 2019 to Dec. 31, 2019.

As noted above, the Arkansas wages data used for this report do not include employment outside of Arkansas, federal or military jobs, or any employed Arkansans who are not reported to Arkansas unemployment insurance. Instead, we can only include wages that are reported to the Arkansas Department of Workforce Services.

Which Degree Counts?

If someone possesses multiple degrees or certificates, we report on the highest credential earned and/or the most recent one earned. For example, if someone has a bachelor’s degree and a master’s degree, we would report on the master’s degree earnings. And if a certificate in air conditioning repair and then the next year gets a certificate in electrical installation, then if that person’s wages are in this report at all, it will be included on the page for electrical installation certificates. The timeframe we are using to find this highest credential earned for an individual is 2008-2018.

Earnings Growth Trends

To the extent we have enough data, we include charts that show how wages are different for people who graduated in earlier years (i.e., 1-year, 2-year, 3-year, 4-year, and 5-year earnings). **Note: This is NOT following the same people over time.** Instead, it means that in 2019, the 1-year earnings are from people who graduated in 2018, the 2-year earnings are from people who graduated in 2017, and so on.

These are completely different groups of people who graduated into different labor markets, and sometimes there are slight discrepancies in that, for example, the 5-year earnings are lower than you'd expect. This is not because anyone got a pay cut in their fifth year of work. It's because the people who happened to graduate in 2014 might be working in different places than the people who graduated in 2016 or 2018. Moreover, if someone got a bachelor's degree in 2014 and then a master's in 2015, their earnings in 2019 will be attributed to the master's degree in 2015—note that this could in turn affect the employment and earnings figures for the people who had a “bachelor's degrees in 2014,” because someone in that group moved to a different group (“master's degrees in 2015”).

Full-time Employment

The concept of “employment” is on a sliding scale. For example, imagine that someone was employed for one day in 2019 and made \$100 total. Should that person be counted as “employed” in 2019, with a really low wage? Or should that person be counted as basically unemployed in 2019? What if they work for 2 days? 3 days? 30 days? And so forth.

But we have to draw a line somewhere. Here's what we do for this Guide: When we say that someone is “full-time employed” in a given year, we mean that their total wages for the year were at least \$14,430. This is based on what someone making 2019 minimum wage of \$9.25 an hour would earn working for 30 hours a week for the full year.

We think this is a good place to draw the line, because anything less than 30 hours a week at minimum wage is not enough to be counted as working “full-time” for the year.

Current Enrollment

If we know that someone is still enrolled in school (for example, graduate school) even after graduating, then we don't count that person's wages or employment, even if it might otherwise fit the definition of “full-time” employment. That is because it could be misleading. For example, if someone attends graduate school in engineering while working 30 hours a week at a restaurant to pay for school, the restaurant earnings don't really tell you anything about the job market for *engineers*.

Number of People Included

For this Guide to include the graduates of a particular degree program, there had to be a minimum of 11 people who: Attended a particular institution, and

- Studied a particular field/major (that is, in a particular CIP category), and
- Graduated in 2018 (or any other specific year), and
- Had a degree at a particular level (e.g., bachelor's, master's, etc.), and
- Had wages reported in 2019.
- Had met the full-time employment criteria for the wages reported in 2019.

If there are 10 or fewer people in one or more of those categories, then we didn't include the wages and employment for that particular program in that year. Also, based on this criteria, certain program of

study, education level, or colleges/universities may not be included in this report. That is to protect individual privacy.

CIP codes

This term refers to the Classification of Instructional Programs as defined by the U.S. Department of Education. These codes are basically a complete list of all the possible programs at universities in the United States. For example, 04.0501 is Interior Architecture, while 14.0601 is Ceramic Sciences and Engineering. CIP codes can be general or specific. At the most general level, there are a few dozen broad series, like 01 for Agriculture. Then, there are more specific categories with 4 digits, like 01.01 for “Agricultural Business and Management.” Then there are even more specific classifications with 6 digits, such as 01.0106, for “Agricultural Business Technology.” In this report, we focus on the 4-digit categories, because the 6-digit listings get so specific that they aren’t very useful if you’re trying to figure out a college major.

Major Groups

Major Group	2-Digit CIP Code	2-Digit CIP Family Title
Arts & Humanities	05	Area, Ethnic, Cultural, Gender, & Group Studies
	16	Foreign Languages, Literatures, & Linguistics
	23	English Language & Literature/Letters
	24	Liberal Arts & Sciences, General Studies & Humanities
	30	Multi/Interdisciplinary Studies
	38	Philosophy & Religious Studies
	39	Theology & Religious Vocations
	50	Visual & Performing Arts
Business & Communication	54	History
	09	Communication, Journalism, & Related Programs
	10	Communications Technologies/Technicians & Support Services
Education	52	Business, Management, Marketing, & Related Support Services
	13	Education
Health	34*	Health-Related Knowledge and Skills
	51	Health Professions & Related Programs
Social & Behavioral Sciences & Human Services	19	Family & Consumer Sciences/Human Sciences
	22	Legal Professions & Studies
	25	Library Science
	31	Parks, Recreation, Leisure, & Fitness Studies
	35*	Interpersonal and Social Skills
	42	Psychology
	44	Public Administration & Social Service Professions
45	Social Sciences	
STEM	01	Agriculture, Agriculture Operations, & Related Sciences
	03	Natural Resources & Conservation
	04	Architecture & Related Services
	11	Computer & Information Sciences & Support Services
	14	Engineering
	15	Engineering Technologies & Engineering-related Fields
	26	Biological & Biomedical Sciences
	27	Mathematics & Statistics
	28	Military Science, Leadership & Operational Art
	29*	Military Technologies
40	Physical Sciences	
Trades	41	Science Technologies/Technicians
	12	Personal & Culinary Services Citizenship Activities
	33	
	43	Homeland Security, Law Enforcement, Firefighting & Related Protective Services
	46	Construction Trades
	47	Mechanic & Repair Technologies/Technicians
48	Precision Production	
	49	Transportation & Materials Moving

The mappings for the Major Group classifications are based on the information used on this report: Zaback, K., Carlson, A., & Crellin, M. (2012). Postsecondary degrees: A state and national level analysis (ED540267). ERIC. <https://files.eric.ed.gov/fulltext/ED540267.pdf>

SOC codes

This term refers to the Standard Occupational Classification system used by federal agencies like the Bureau of Labor Statistics and the Census Bureau. These codes are meant to classify basically every job within the American economy, everything from pharmacy aides (31-9095) to meter readers (43-5041) to armored assault vehicle crew members (55.3013).

Mapping CIP codes to SOC codes

In Appendix C, we provide a table that maps CIP codes to SOC codes. This sounds very technical, but it just means mapping college majors to possible careers/jobs, so that you can see whether a particular major is likely to lead to a particular job. SOC codes and CIP codes don't always match up perfectly because people can do many things with an economics degree (for example), while there are many occupations (such as “gambling service worker”) that don't have any college degree or major associated with them.

Even so, there are many thousands of such combinations. We focused on around 340 matches where 1) there is a strong match according to the National Research Center for Career and Technical Education, 2) there is at least one job in Arkansas, and 3) there was at least one graduate who completed their post-high school education in Arkansas.

Note: We do *not* have actual data on what jobs people actually hold. The point here is just to tell you which majors/degrees/certificates are *likely* to be related to which jobs.

High Demand (Targeted Credentials)

On some of the charts, you'll see that a particular program of study is flagged as “High Demand.” Here's what that means. The Arkansas Division of Higher Education has a strategic plan called Align Arkansas 2026 (<https://www.adhe.edu/about-adhe/master-plan9/>). One of the main goals of this plan is to increase the number of people in Arkansas who have so-called “targeted credentials” by 2026. Targeted credentials are simply degrees where there is higher-than-average demand in the job market, as well as a gap between the market demand and the number of graduates. Thus, for example, expert predictions suggest that there are currently not enough graduates in several dozen fields, including everything from funeral science to forestry to teacher education to registered nurses. The goal is to increase the number of graduates with those high-demand credentials.

High Wage

In our charts, we flag as “high wage” the programs of study that have an average wage greater than the average across all credentials.

Charts with different wage scale

On the trend charts that show the wages by education level, some of the charts have a higher y-axis scale to show the wages. The trend lines, axis labels and the dial chart above are all displayed in green for these sections, to highlight the scale change.