

Alabama Commission on Higher Education Employment Outcomes Report 2022





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2022

OVERVIEW AND EXECUTIVE SUMMARY

Alabama's Workforce and Education Landscape

Over the past decade, Alabama's public colleges and universities have shown continued growth in graduates across all degree levels. Between 2012 and 2021, the number of degrees and certificates awarded by the state's public institutions increased by 27.8%, with bachelor's degrees growing from 20,500 to nearly 28,000.¹ Over a similar period, median earnings for Alabamians 25-to-64 rose 6.0% from just over \$37,700 to \$40,000,² with bachelor's degree holders earning upwards of \$52,000 annually.

Under the leadership of Governor Kay Ivey, Alabama has committed to aligning workforce development and education to support economic growth and prosperity for all Alabamians. Established in 2018, the Governor's Office of Education and Workforce Transformation (GOEWT) brings together a broad coalition of public and private sector partners around three main goals:

- Increasing Alabama's labor force participation and decreasing the unemployment rate;
- Adding 500,000 skilled workers to the state's labor force by 2025; and
- Creating career pathways in all 16 career clusters for in-school youth, out-of-school youth, adults, at-risk populations, and disconnected populations.

The Alabama Commission on Higher Education (ACHE) is an important partner in this work. The Commission seeks to provide reasonable access to quality collegiate and university education for the citizens of Alabama. Established in 1969, the agency coordinates and facilitates activities to support and promote Alabama's 14 public four-year universities and 24 public two-year colleges, who are governed by the Alabama Community College System (ACCS). The Commission facilitates informed decision-making and policy formulation regarding stewardship of state higher education funding and financial aid dollars. ACHE provides a state-level framework for institutions to respond cooperatively and individually to the state's education and training needs.

Employment Outcomes for Public Higher Education

This Employment Outcomes Report is designed to study the value of public higher education in the state of Alabama by analyzing employment outcomes for graduates. Findings are intended for policymakers who are interested in how investments in public higher education are contributing

¹ Historical degree production data from Alabama Student Unit Record Data System (ACHE, 2021).

² Median educational earnings by educational attainment for 2019 compared with 2015 (American Community Survey, five-year estimates).

to the state's workforce and economy. Findings may also inform higher education administrators and policymakers who are interested in how their graduates are faring in the workforce.

Specifically, this report addresses the following questions:

- What percentage of Alabama residents and non-Alabama residents who graduate from public two-year and four-year institutions remain in Alabama?
- How does level of education impact salary?
- What is the average salary of Alabama graduates by field of study and level of degree?

Employment data were analyzed for graduates of Alabama public two-year and four-year institutions one year and five years after graduation for selected graduating classes of the past decade. Snapshots of employment status five years after graduation are shown for the graduating classes of 2012, 2013, 2014, and 2015, and the employment status of the 2016, 2017, 2018, and 2019 classes is shown after one year.

Key Findings

Following are highlights of this Alabama employment data for the state's higher education graduates:

- 1) The good news for Alabama is that a majority of Alabama public higher education institution graduates (52.8% overall) remain in Alabama after five years, contributing to the state's economy and opportunities for growth.
- 2) Alabama retains more undergraduate degree earners than graduate degree earners. Five years after graduation, 47.7% of the 2015 bachelor's degree recipients were employed in Alabama. More certificate (64.5%) and associate degree (71.2%) recipients remained in Alabama, while fewer master's (44.3%), doctoral research/other (27.3%) and doctoral professional (34.5%) graduates remained.
- 3) Graduates who were Alabama residents were more likely to remain in the state for employment, as compared with non-residents. After five years, Alabama resident bachelor's, master's, doctoral research/other and doctoral professional degree graduates were found employed in Alabama at *three or more times* the rate of nonresidents. Alabama resident associate degree graduates were found employed at a minimum of double the rate of non-residents. Residency had the smallest impact at the undergraduate certificate level.
- 4) Retention of graduates into employment varied by degree level and field of study. Graduates in education, security and protective services, computer and information sciences, and social services were most likely to work in Alabama. On the other hand, graduates in fields of study such as architecture, biological and biomedical sciences, and communications were the least likely to be employed in the state after five years.

- 5) These data validate the link between educational attainment and higher salary. Five years after graduation, 2015 bachelor's degree recipients employed in Alabama were earning \$52,340 on average, while associate degree recipients and undergraduate certificate holders earned an average of \$37,136 and \$42,579, respectively. Compared to bachelor's degree holders after five years, master's degree recipients earned 33.5% more (\$69,890); doctoral research/other degree recipients earned 59.7% more (\$83,590); and doctoral professional degree recipients earned, on average, 118.1% more (\$114,170).
- 6) At the bachelor's degree level, average earnings differed by field of study. Among those who stayed in Alabama, graduates in engineering, computer and information sciences, engineering technologies, mathematics and statistics, and health professions were earning the most at both one year and five years after completion.

METHODOLOGY

Process

Alabama two-year and four-year public institution degree recipients were identified using the Alabama Statewide Student Database. The highest degree earned was selected for students who earned multiple degrees within the same academic year. For example, a student who earned an undergraduate certificate and an associate degree in 2013 was reported only once with an associate degree in the 2013 academic year (in the case of multiple undergraduate certificates at the same award level, the last one earned was selected). Students who earned more than one degree over the six academic years reviewed were reported once in each year with the highest degree earned. For example, a student who earned a bachelor's degree in 2013 and a master's degree in 2015 was reported in each of those academic years.

A snapshot of employment status five years after graduation is shown for the graduating classes of 2012, 2013, 2014, and 2015 (for employment in 2017, 2018, 2019, and 2020 respectively). Additionally, an employment picture is taken one year after graduation for the classes of 2016, 2017, 2018, and 2019 (for employment in 2017, 2018, 2019, and 2020, respectively).

The list of graduates was compared to data records at the State of Alabama Department of Labor (DOL). When a match was found, the industry code, based on the North American Industry Classification System (NAICS), and quarterly wage information were attached to the degree recipient's record and returned to ACHE. Average salary was calculated by adding the wages of all four quarters per graduate to get an annual sum (the maximum annual sum was selected for graduates with multiple employment records in the same year). Wage records from the DOL database are only available for employees covered by Alabama unemployment insurance. The self-employed and those working out-of-state are not included.

When calculating average salary, persons whose annual earnings were found to be less than \$5,000 a year were excluded*, as these graduates were most likely part-time workers, including students continuing their education at higher levels. Table 1 details the number of graduates used to obtain the data reported.

Table 1
Number of Graduates in Employment Outcomes Study
Alabama and Non-Alabama Residents

	Number of Graduates								
		5-Year	Interval			1-Year Interval			Grand
	2012	2013	2014	2015	2016	2017	2018	2019	Total
Total Graduates Submitted to DOL	45,222	45,684	45,278	46,520	48,385	49,919	52,548	55,918	433,802
Total Graduates Found Working in Alabama	24,848	25,047	24,215	24,559	27,966	29,529	30,454	32,312	243,543
*Total Graduates Used for Salary Calculations	23,602	23,626	22,982	23,117	25,436	26,388	27,455	28,567	223,926

^{*}Persons whose annual salary were less than \$5,000 were excluded from the study.

Each population was reported in three groups: (1) Alabama and non-Alabama residents (2) Alabama residents only and (3) non-Alabama residents only. Graduates were considered to be Alabama residents if the original state of residence when entering an Alabama higher education institution was Alabama. If the original state of residence was anything other than Alabama, then the graduate was considered to be a non-Alabama resident for reporting purposes.

Privacy

A data exchange agreement between ACHE and DOL defines the procedures for protecting all data. All agencies protect the identity of individuals. This Employment Outcomes Report includes only aggregate data and only when six or more individuals are being described. Instances with 5 or fewer individuals are denoted with two asterisks (**).

Note on Degree Levels

Due to space limitations in some tables and charts, "Bachelor's Degree and Post-Bacc Certificates" may be referred to as "Bachelor's Degrees", and "Master's Degree and Post-Master's Certificates" may be referred to as "Master's Degrees." Both groups, however, still include certificate numbers in their calculations.

FINDINGS

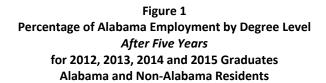
All Graduates (Alabama and Non-Alabama Residents)

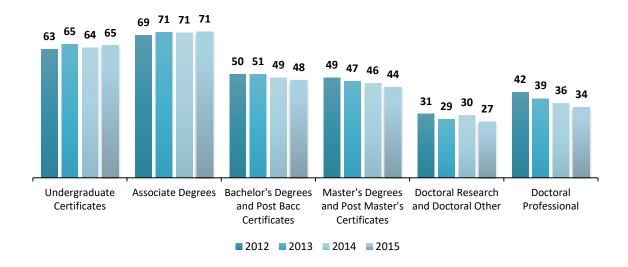
Employment Rate Comparison

- As highlighted in Table 2 and Figure 1, employment rates across most academic levels show a slight decline from 2013 to 2015. This across-the-board decline can partially be attributed to larger numbers of non-Alabama residents graduating from the state's college and universities who many times return to their home state for employment.
- Table 2 shows 47.7% of the 2015 bachelor's degree recipients were employed in Alabama five years after graduation. More undergraduate certificate (64.5%) and associate degree (71.2%) recipients remained in Alabama, and fewer master's (44.3%), doctoral research/other (27.3%), and doctoral professional (34.5%) graduates remained.
- Associate degree levels remained consistent from 2013 to 2015, increasing by 0.2%.
 Undergraduate certificates (-0.7%), bachelor's degrees (-2.9%), master's degrees (-2.9%),
 doctoral research/other (-1.3%), and doctoral professional (-4.2%) saw declines over that
 time period. Overall employment has seen a slight but consistent decline from 2013,
 decreasing from 54.8% to 52.8%.

Table 2
Alabama Employment by Degree Level
After Five Years
for 2012, 2013, 2014, and 2015 Graduates
Alabama and Non-Alabama Residents

Degree Level	Number of Graduates				Percent Employed in Alabama			
Degree Level	2012	2013	2014	2015	2012	2013	2014	2015
Undergraduate Certificates	4,591	4,323	3,964	4,301	62.8%	65.2%	63.5%	64.5%
Associate Degrees	9,687	9,259	9,200	9,590	69.5%	71.0%	70.8%	71.2%
Bachelor's Degrees & Post Baccalaureate Certificates	20,414	21,572	21,573	21,908	50.4%	50.6%	48.9%	47.7%
Master's Degrees & Post Master's Certificates	8,799	8,741	8,689	8,783	48.7%	47.2%	46.2%	44.3%
Doctoral Research & Doctoral Other	671	678	692	754	31.1%	28.6%	30.5%	27.3%
Doctoral Professional	1,060	1,111	1,143	1,184	41.7%	38.7%	36.4%	34.5%
Grand Total	45,222	45,684	45,261	46,520	54.9%	54.8%	53.5%	52.8%





- One year after graduation, 51.7% of the 2019 bachelor's degree recipients were employed in Alabama. More undergraduate certificate and associate degree recipients (72.6% and 76.3%, respectively) remained in Alabama, and fewer master's (49.3%), doctoral research/other (32.3%), and doctoral professional (33.0%) graduates remained (see Table 3 and Figure 2, page 5).
- For all degree levels, with the exception of undergraduate certificates (0.7%), in-state employment rates after one year for the 2019 graduates were one to four percentage points *lower than* the rates for the 2017 graduates. Doctoral professional degree holder rates decreased the most (-3.9 percentage points) followed by bachelor's degree holders (-3.0 percentage points). The decreases at the associate (-0.9 percentage points), master's (-0.8 percentage points), and doctoral research/other (-0.7 percentage points) levels were more consistent, declining at less than one percent since 2017.

Table 3
Alabama Employment by Degree Level

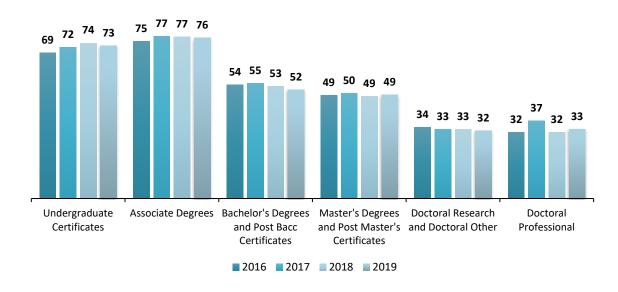
After One Year
for 2016, 2017, 2018, and 2019 Graduates
Alabama and Non-Alabama Residents

Degree Level	Number of Graduates				Percent Employed in Alabama			
Degree Level	2016	2017	2018	2019	2016	2017	2018	2019
Undergraduate Certificates	4,758	4,927	5,217	6,905	69.2%	71.9%	73.9%	72.6%
Associate Degrees	9,506	9,710	9,670	10,510	74.8%	77.2%	76.9%	76.3%
Bachelor's Degrees & Post Baccalaureate Certificates	23,154	23,765	25,307	25,876	54.0%	54.7%	53.3%	51.7%
Master's Degrees & Post Master's Certificates	9,056	9,623	10,389	10,656	49.1%	50.1%	48.5%	49.3%
Doctoral Research & Doctoral Other	746	751	724	713	33.9%	33.0%	32.9%	32.3%
Doctoral Professional	1,165	1,143	1,241	1,258	31.5%	36.9%	31.6%	33.0%
Grand Total	48,385	49,919	52,548	55,918	57.8%	59.2%	58.0%	57.8%

Figure 2
Percentage of Alabama Employment by Degree Level

After One Year
for 2016, 2017, 2018 and 2019 Graduates

Alabama and Non-Alabama Residents



Employment by Field of Study

The section of this report contains tables describing employment rates by field of study for 2012, 2013, 2014, and 2015's baccalaureate graduates after five years. The field of study has been defined using the federal Classification of Instructional Programs (CIP) (see *Alabama Employment by Field of Study* in the Tables section and Appendix A). Graduates who were in Alabama after five years are indicators of more long-term commitment to Alabama. Highlights of these findings are as follows:

- Business, management and marketing was the <u>most popular</u> field of study for 2015 graduates. Of the 4,762 graduates, 44% were employed in Alabama after five years.
- The second most popular field of study for 2015 graduates was health professions, with 56% of 2,989 graduates employed in Alabama after five years.
- Education was the third most popular field of study for 2015 graduates, with 63% of 2,003 graduates employed in Alabama after five years.

Bar graphs on the following pages present employment rates, from highest to lowest, for bachelor's degree recipients by field of study (those with at least 6 graduates):

- Of the 2012 Alabama bachelor's degree recipients, the following fields of study had the highest Alabama employment rates after five years:
 - Education (67% of 2,365 graduates),
 - Engineering Technologies (60% of 72 graduates),
 - Health Professions (59% of 2,347 graduates), and
 - Communications Technologies (58% of 12 graduates).
- Of the 2012 Alabama bachelor's degree recipients, the following fields of study had the lowest Alabama employment rates after five years:
 - Architecture (26% of 65 graduates),
 - Physical Sciences (37% of 252 graduates),
 - Philosophy and Religious Studies (38% of 63 graduates), and
 - Cultural, Gender, and Group Studies (39% of 18 graduates).
- Of the 2013 Alabama bachelor's degree recipients, the following fields of study had the highest Alabama employment rates after five years:
 - Education (65% of 2,431 graduates),
 - o Engineering Technologies (63% of 70 graduates),
 - Public Administration and Social Services (60% of 565 graduates), and
 - Health Professions (59% of 2,588 graduates).

- Of the 2013 Alabama bachelor's degree recipients, the following fields of study had the lowest Alabama employment rates after five years:
 - Architecture (33% of 73 graduates),
 - Physical Sciences (36% of 286 graduates),
 - Communications Technologies (38% of 21 graduates), and
 - Philosophy and Religious Studies (39% of 76 graduates).
- Of the 2014 Alabama bachelor's degree recipients, the following fields of study had the highest Alabama employment rates after five years:
 - o Education (62% of 2,140 graduates),
 - o Parks, Recreation, and Fitness (62% of 210 graduates),
 - Health Professions (60% of 2745 graduates), and
 - Public Administration and Social Services (57% of 582 graduates).
- Of the 2014 Alabama bachelor's degree recipients, the following fields of study had the lowest Alabama employment rates after five years:
 - Architecture (14% of 91 graduates),
 - Physical Sciences (36% of 308 graduates),
 - Communication and Journalism (39% of 1,367 graduates), and
 - Foreign Languages and Literature (39% of 123 graduates).
- Of the 2015 Alabama bachelor's degree recipients, the following fields of study had the highest Alabama employment rates after five years:
 - Education (63% of 2,003 graduates),
 - Security and Protective Services (59% of 714 graduates),
 - Communications Technologies (57% of 7 graduates), and
 - Computer and Information Sciences (57% of 407 graduates).
- Of the 2015 Alabama bachelor's degree recipients, the following fields of study had the lowest Alabama employment rates after five years:
 - Cultural, Gender, and Group Studies (25% of 20 graduates),
 - Architecture (26% of 69 graduates),
 - Communication and Journalism (35% of 1,299 graduates), and
 - o Biological and Biomedical Sciences (38% of 1,272 graduates).

Figure 3
Alabama Employment by Field of Study

After Five Years
for 2012 Bachelor's Degree and Post Baccalaureate Certificates

(Total Graduates in Parentheses)

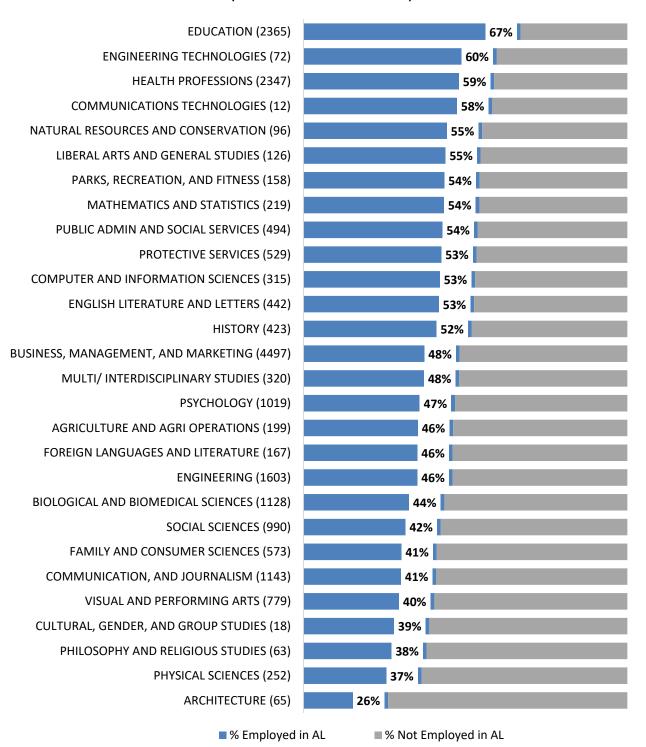


Figure 4
Alabama Employment by Field of Study
After Five Years
for 2013 Bachelor's Degree and Post Baccalaureate Certificates
(Total Graduates in Parentheses)

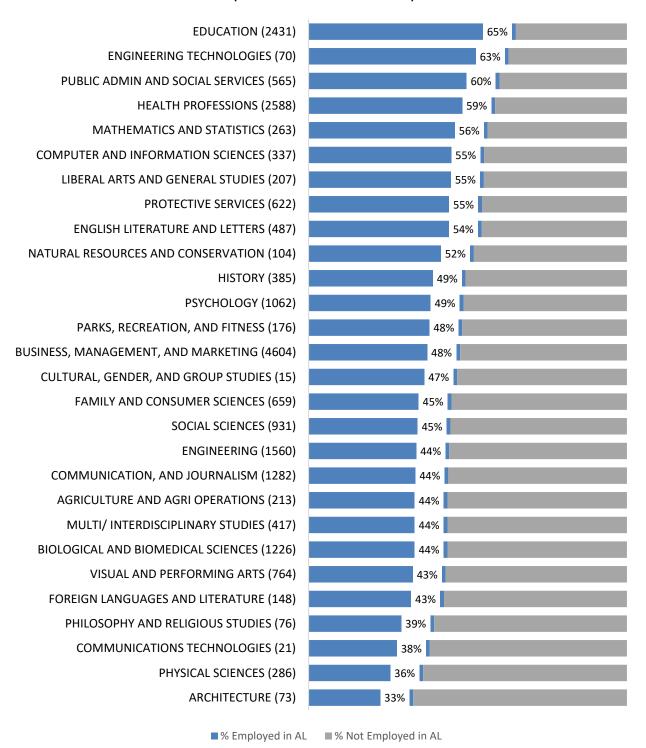


Figure 5
Alabama Employment by Field of Study

After Five Years
for 2014 Bachelor's Degree and Post Baccalaureate Certificates

(Total Graduates in Parentheses)

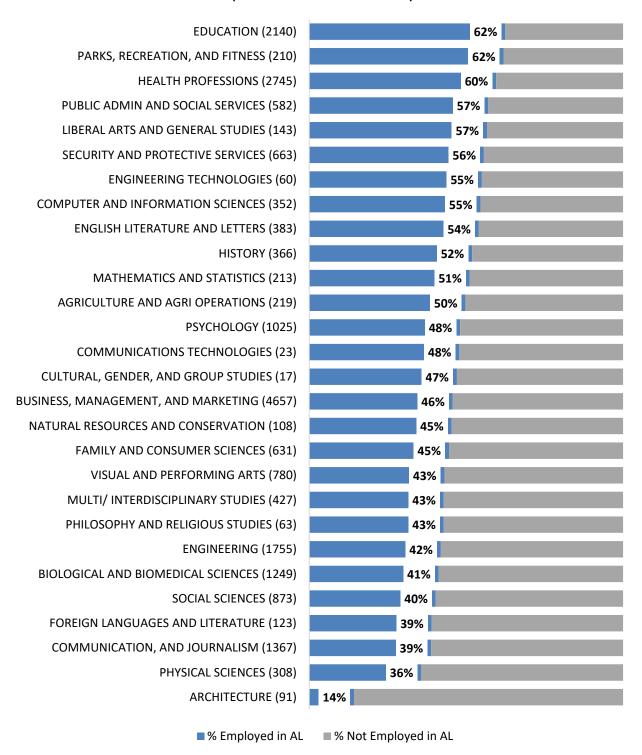
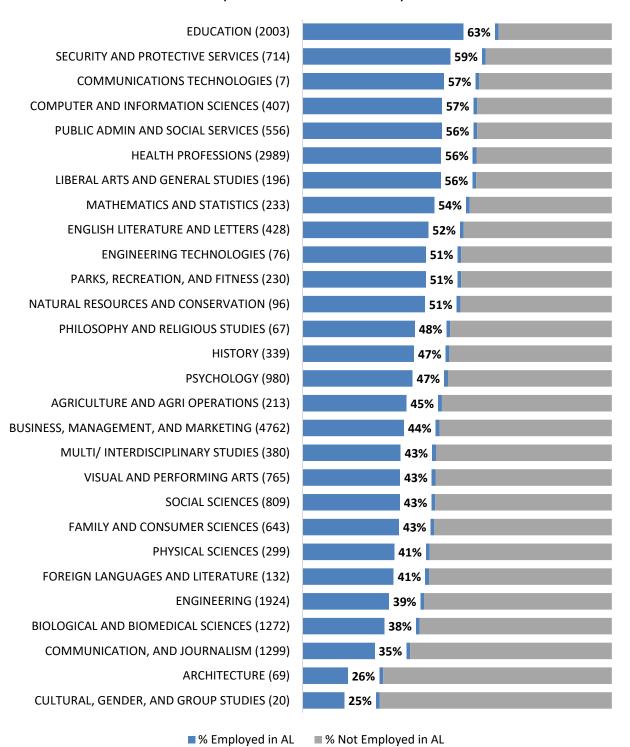


Figure 6
Alabama Employment by Field of Study

After Five Years
for 2015 Bachelor's Degree and Post Baccalaureate Certificates

(Total Graduates in Parentheses)



Employment by Residency Status

The figures in this report suggest residency is an important factor in whether a graduate will remain in the state or not. After five years, Alabama resident bachelor's, master's, doctoral research/other, and doctoral professional degree graduates were found employed in Alabama at three or more times the rate of non-residents. Alabama resident associate degree graduates were found employed at a minimum of double the rate of non-residents. Residency had the smallest impact at the undergraduate certificate level.

Table 4
Alabama Employment by Residency Status
After Five Years
for 2012, 2013, 2014, and 2015 Graduates

2012 Graduates	AL Res	idents	Non-Residents	
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed
Undergraduate Certificates	4,296	64.2%	295	41.7%
Associate Degree	8,940	73.0%	747	27.2%
Bachelor's Degree & Post Baccalaureate Certificates	15,770	61.1%	4644	14.3%
Master's Degree and Post Master's Certificates	5,797	69.0%	3002	9.6%
Doctoral Research and Other Doctorate	276	55.8%	395	13.9%
Doctoral Professional	730	54.5%	330	13.3%

2013 Graduates	AL Res	idents	Non-Residents	
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed
Undergraduate Certificates	4,104	66.1%	219	47.5%
Associate Degree	8,554	74.2%	705	31.6%
Bachelor's Degree & Post Baccalaureate Certificates	16,455	61.8%	5117	14.4%
Master's Degree and Post Master's Certificates	5,614	68.6%	3127	8.6%
Doctoral Research and Other Doctorate	256	54.3%	422	13.0%
Doctoral Professional	694	57.3%	417	7.7%

Table 4 Alabama Employment by Residency Status After Five Years for 2012, 2013, 2014, and 2015 Graduates (Continued)

2014 Graduates	AL Res	idents	Non-Residents	
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed
Undergraduate Certificates	3,749	64.8%	215	41.9%
Associate Degree	8,421	74.0%	779	36.1%
Bachelor's Degree & Post Baccalaureate Certificates	15,947	61.6%	5626	12.9%
Master's Degree and Post Master's Certificates	5,520	67.9%	3169	8.3%
Doctoral Research and Other Doctorate	266	53.4%	426	16.2%
Doctoral Professional	675	55.0%	468	9.6%

2015 Graduates	AL Res	idents	Non-Residents	
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed
Undergraduate Certificates	4,086	65.8%	215	40.9%
Associate Degree	8,926	74.1%	664	32.1%
Bachelor's Degree & Post Baccalaureate Certificates	15,793	61.2%	6115	13.0%
Master's Degree and Post Master's Certificates	5,350	67.0%	3433	8.9%
Doctoral Research and Other Doctorate	321	51.4%	433	9.5%
Doctoral Professional	683	53.3%	501	8.8%

Figure 7.1

Alabama Employment by Residency Status and Level of Degree for 2012 Graduates After Five Years

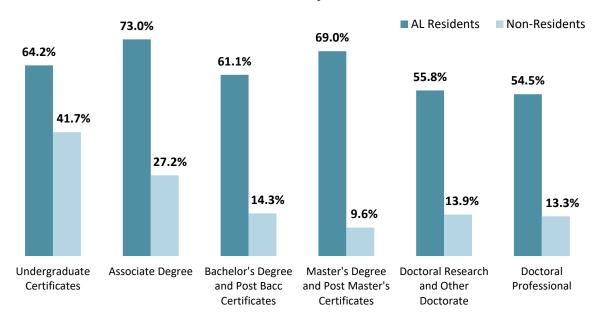


Figure 7.2

Alabama Employment by Residency Status and Level of Degree for 2013 Graduates After Five Years

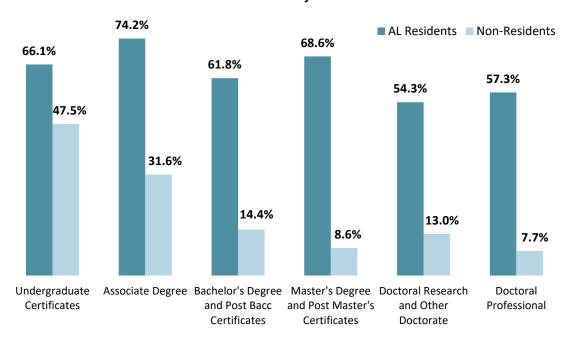


Figure 7.3

Alabama Employment by Residency Status and Level of Degree for 2014 Graduates After Five Years

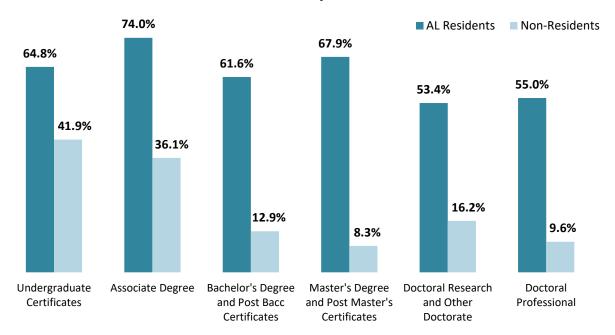
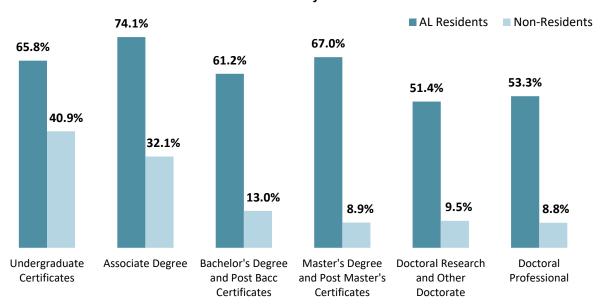


Figure 7.4

Alabama Employment by Residency Status and Level of Degree for 2015 Graduates After Five Years



 One year after graduation, residents were again found employed in Alabama at higher rates than non-residents. Alabama resident bachelor's, master's, doctoral research/other and doctoral professional degree graduates were found employed in Alabama at three or more times the rate of non-residents. Alabama resident associate degree graduates were found employed at a minimum of double the rate of non-residents. Residency still had the smallest impact at the undergraduate certificate level.

Table 5
Alabama Employment by Residency Status
After One Year
for 2016, 2017, 2018, and 2019 Graduates

2016 Graduates	AL Res	idents	Non-Residents		
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed	
Undergraduate Certificates	4,539	70.2%	219	49.3%	
Associate Degree	8,827	77.8%	679	35.9%	
Bachelor's Degree & Post Bacc Certificates	16,552	68.4%	6602	17.9%	
Master's Degree and Post Master's Certificates	5,542	72.8%	3514	11.7%	
Doctoral Research and Other Doctorate	276	57.2%	470	20.2%	
Doctoral Professional	672	46.7%	493	10.8%	

2017 Graduates	AL Res	idents	Non-Residents		
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed	
Undergraduate Certificates	4,712	72.7%	215	54.0%	
Associate Degree	8,925	80.5%	785	39.6%	
Bachelor's Degree & Post Bacc Certificates	16,454	70.0%	7311	20.2%	
Master's Degree and Post Master's Certificates	5,791	75.0%	3832	12.6%	
Doctoral Research and Other Doctorate	286	58.7%	465	17.2%	
Doctoral Professional	621	56.0%	522	14.2%	

2018 Graduates	AL Res	idents	Non-Residents	
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed
Undergraduate Certificates	5,012	75.0%	205	47.8%
Associate Degree	8,945	80.4%	725	32.7%
Bachelor's Degree & Post Bacc Certificates	16,961	69.8%	8346	19.9%
Master's Degree and Post Master's Certificates	5,786	76.2%	4603	13.8%
Doctoral Research and Other Doctorate	288	53.8%	436	19.0%
Doctoral Professional	543	51.6%	698	16.0%

Table 5
Alabama Employment by Residency Status

After One Year
for 2016, 2017, 2018, and 2019 Graduates (Continued)

2019 Graduates	AL Res	idents	Non-Re	sidents
Degree Level	Number of Graduates	Percent Employed	Number of Graduates	Percent Employed
Undergraduate Certificates	6,583	73.8%	322	48.1%
Associate Degree	9,723	79.9%	787	31.1%
Bachelor's Degree & Post Bacc Certificates	16,896	69.6%	8980	18.1%
Master's Degree and Post Master's Certificates	5,907	77.1%	4749	14.7%
Doctoral Research and Other Doctorate	257	56.0%	456	18.9%
Doctoral Professional	549	55.4%	709	15.7%

Figure 8.1

Alabama Employment by Residency Status and Level of Degree for 2016 Graduates After One Year

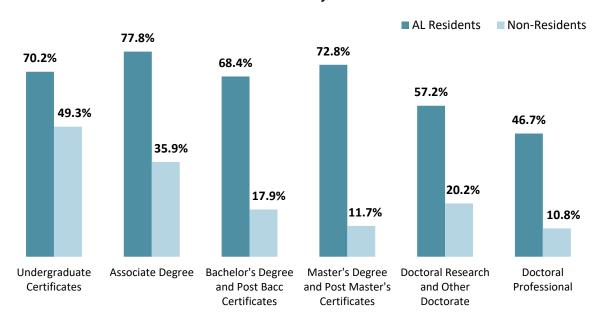


Figure 8.2
Alabama Employment by Residency Status and Level of Degree for 2017 Graduates After One Year

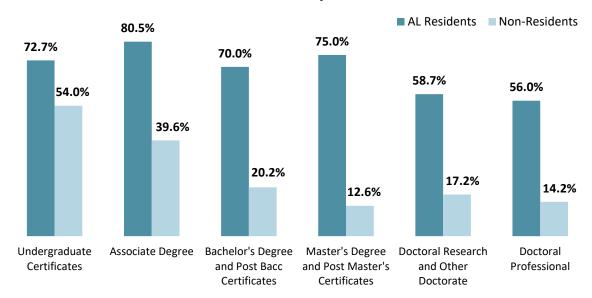
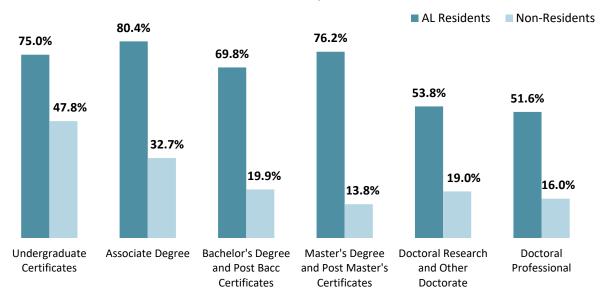


Figure 8.3
Alabama Employment by Residency Status and Level of Degree for 2018 Graduates After One Year



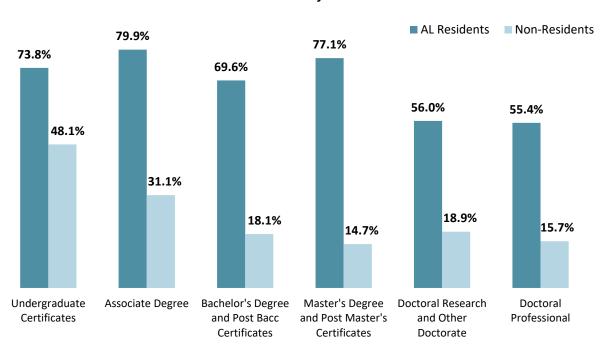
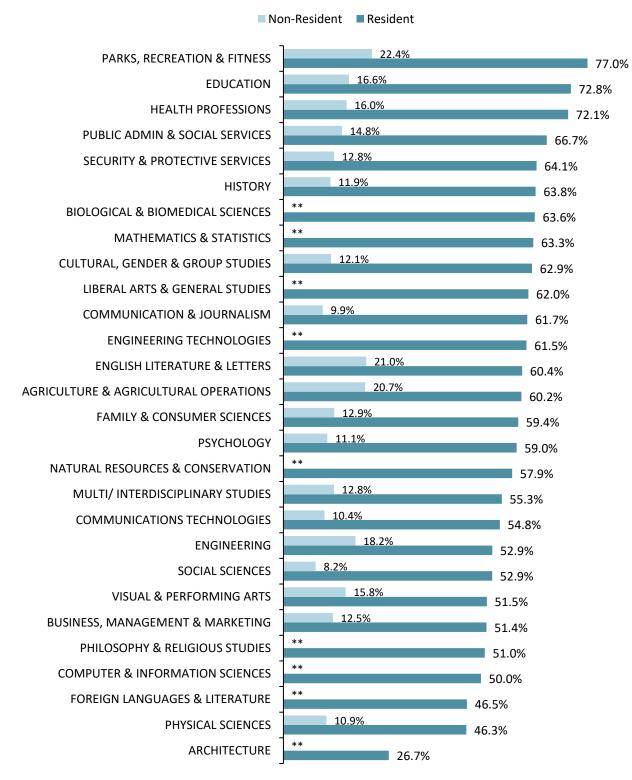


Figure 8.4

Alabama Employment by Residency Status and Level of Degree for 2019 Graduates After One Year

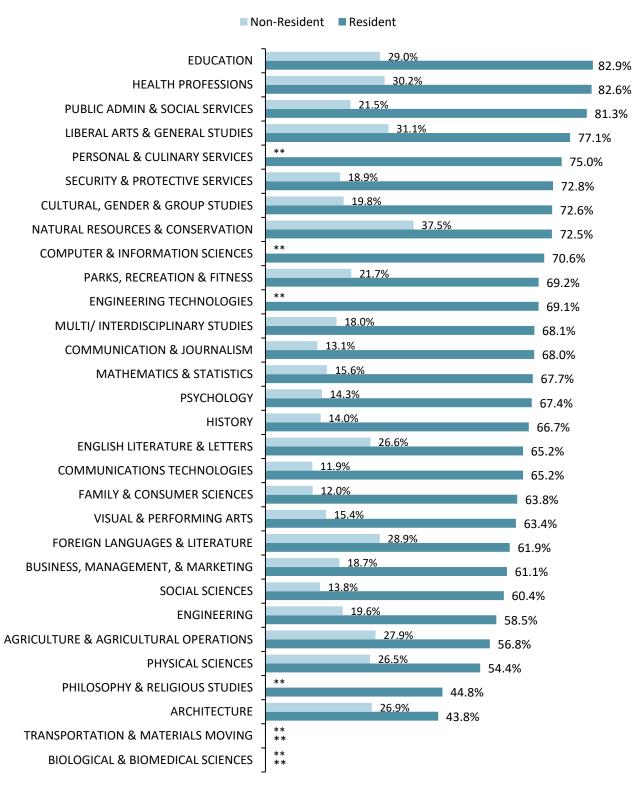
The charts on the following two pages compare resident and non-resident Alabama employment rates for bachelor's degree recipients by field of study. Results shown are for the 2014 graduates after five years and for the 2019 graduates after one year. The figures suggest in-state employment rates for Alabama residents are significantly higher than employment rates for non-residents.

Figure 9.1
Alabama Employment Rates by Field of Study for Resident and Non-Resident
2015 Bachelor's Degree Graduates - After Five Years



Note: ** indicates data not reported for 5 or fewer graduates or employed graduates.

Figure 9.2
Alabama Employment Rates by Field of Study
for Resident and Non-Resident
2019 Bachelor's Degree Graduates - After Five Years



Note: ** indicates data not reported for 5 or fewer graduates or employed graduates.

Average Salary Comparison

Salary information was reviewed for graduates and compared by field of study and level of degree. When calculating average salary, persons whose annual earnings were found to be less than \$5,000 a year were excluded, as these graduates were most likely part-time workers, including students continuing their education at higher levels.

Salary by Degree Level

- Five years after graduation, 2015 bachelor's degree recipients employed in Alabama were earning \$52,340 on average. This is higher than the three previous classes' average salaries of \$48,213 for 2013 graduates and \$49,792 for the 2014 graduates (see Table 6, page 23).
- Average earnings for 2015 undergraduate certificate holders five years after graduation were 29% less than bachelor's degree recipients. The average salary for 2015 undergraduate certificate holders (\$37,136) was higher than the average salary from 2013 (\$33,565) and higher than the previous year, 2014 (\$35,533).
- After five years, the 2015 associate degree holders earned, on average, \$42,579, which is 20.2% less than bachelor's degree recipients from the same year. The average salary for these associate degree holders was higher than the average salaries from the previous two years, 2013 and 2014 (\$39,162 and \$40,120, respectively).
- Compared to bachelor's degree holders after five years, master's degree recipients earned 36.4% more (\$69,890); doctoral research/other degree recipients earned 64.8% more (\$83,590); and doctoral professional degree recipients earned, on average 128.2% more (\$114,170). Associate, master's, doctoral research/other and doctoral professional degrees from 2015 saw average salary increases compared to 2013 and 2014.
- Salary variations by degree level were also found one year after graduation. In some cases, the degree premium was greater than it was for graduates after five years (2019 master's degree holders earned 55.3% more than bachelor's degree holders after one year but only 33.5% more after five years). In most cases, however, the differences in salaries by degree level were less after one year than five years after graduation.
- After one year, the 2019 bachelor's degree recipients earned an average of \$37,755.
- Master's degree holders earned \$58,646 on average, doctoral research/other recipients earned \$63,419, and doctoral professional recipients earned \$79,286. Associate degree holders earned of \$33,282, while undergraduate certificate holders earned \$30,054.
- One-year average salaries for undergraduate certificates, associate, bachelor's, master's, and doctoral professional degree holders' salaries increased from 2017 through 2019. The doctoral research/other group experienced a slight decline in average salary during the same time period.

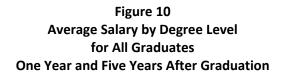
Table 6
Average Salary by Degree Level for All Graduates

Degree Level		After Fi	ve Years	After One Year				
	2012	2013	2014	2015	2016	2017	2018	2019
Undergraduate Certificates	\$33,873	\$33,565	\$35,533	\$37,136	\$27,691	\$28,520	\$29,051	\$30,054
Associate Degrees	\$38,929	\$39,162	\$40,120	\$42,579	\$31,325	\$31,085	\$32,404	\$33,282
Bachelor's Degree & Post Baccalaureate Certificates	\$47,442	\$48,213	\$49,792	\$52,340	\$34,663	\$34,367	\$36,252	\$37,755
Master's Degree and Post Master's Certificates	\$60,552	\$63,150	\$64,714	\$69,890	\$54,138	\$54,662	\$55,928	\$58,646
Doctoral Research and Other Doctorate	\$78,476	\$81,331	\$77,779	\$83,590	\$61,442	\$70,052	\$63,838	\$63,419
Doctoral Professional	\$100,731	\$105,463	\$106,830	\$114,170	\$73,318	\$73,758	\$74,598	\$79,286

Earnings Growth by Degree Level

Data from this study suggest that work experience does impact salary. The average salary for graduates after five years was higher than for graduates after only one year at all degree levels.

- Associate degree holders earned 27.9% more after five years than after one year (\$42,579 in 2015 compared to \$33,282 in 2019). The two previous employment periods (2013 compared to 2017, and 2014 compared to 2018) revealed slightly lower differences (26% and 23.8%, respectively) between the after five-years and after one-year periods.
- On average, Bachelor's degree holders earned 38.6% more after five years than after one year (\$52,340 in 2015 compared to \$37,755 in 2019). The earlier employment periods showed similar average salary differences by experience level (40.3% for 2013 and 37.3% for 2014). Likewise, doctoral professional recipients demonstrated similar growth earnings, where salaries after five years (\$114,170) were 44.0% higher than those after one year (\$79,286). Gains shown in the previous two employment periods were 43.0% for 2013 and 43.2% for 2014.
- Master's degree recipients consistently demonstrated the lowest earnings growth with a 19.2% increase after five years (\$69,890 compared to \$58,646 after one year). However, this difference was higher than the previous two employment periods of 15.5 and 15.7%, respectively.
- Earnings growth for doctoral research/other degree holders showed the greatest variation between comparison years. These degree holders earned, on average, 31.8% more after five years than after one year (\$83,590 for 2015 compared to \$63,419 for 2019); however, the previous two employment periods were 16.1% for 2013 and 21.8% for 2014.





Average Salary Comparison by Field of Study

Graduates who are employed after five years earn higher incomes than recent graduates and are more established within their professions; therefore, the findings from the 2012 through 2015 bachelor's degree recipients are highlighted below. Table 7 and Figures 7 through 14 on the following pages provide average salaries by field of study for bachelor's degree recipients. (Refer to the Tables section *Average Salary by Degree Level and Field of Study* for trend data related to all degree levels.)

- Among the 2012 bachelor's degree holder's salaries, engineering and engineering technologies graduates held the top spots at \$73,740 and \$60,495, respectively. Computer and information sciences (\$59,861) ranked third, followed by physical sciences (\$55,980), health professions (\$54,117), and business, management & marketing (\$52,209).
- Among the 2013 bachelor's degree holder's salaries, engineering graduates (\$74,191) ranked first followed by computer and information sciences (\$65,792), engineering technologies (\$59,796), health professions (\$54,832), and business, management and marketing (\$54,547).
- Among the 2014 bachelor's degree holder's salaries, engineering (\$74,470) ranked first followed by graduates of computer & information sciences (\$64,639), health professions (\$56,931), physical sciences (\$56,573), engineering technologies (\$56,537), and business, management & marketing (\$55,632).
- Among the 2015 bachelor's degree holder's salaries, engineering (\$81,037) ranked first followed by graduates of computer & information sciences (\$69,693), engineering technologies (\$66,756), mathematics and statistics (\$58,825), business, management & marketing (\$58,224), and health professions (\$57,641).

Table 7
Average Salaries by Field of Study
for All Graduates
Bachelor's Degree Recipients

		After Fi	ve Years		After One Year				
Field of Study	2012	2013	2014	2015	2016	2017	2018	2019	
Agriculture	\$46,978	\$50,120	\$49,210	\$50,599	\$30,925	\$28,877	\$27,575	\$33,338	
Architecture	\$41,302	\$50,736	\$48,736	\$51,753	\$32,076	\$37,186	\$32,397	\$37,511	
Area & Ethnic Studies	\$36,147	\$25,911	**	**	\$11,552	\$30,055	\$27,338	**	
Biological Sciences	\$48,320	\$48,704	\$51,290	\$54,538	\$21,134	\$20,882	\$22,829	\$22,127	
Business, Mgmt, & Marketing	\$52,209	\$54,547	\$55,632	\$58,224	\$36,401	\$36,580	\$37,566	\$39,225	
Communications	\$38,184	\$40,783	\$41,810	\$40,867	\$25,827	\$24,800	\$25,683	\$25,856	
Communications Technologies	\$24,107	\$27,552	\$26,983	**	**	\$17,000	\$14,671	\$19,786	
Computer & Info Sciences	\$59,861	\$65,792	\$64,639	\$69,693	\$48,398	\$45,809	\$48,121	\$52,958	
Cultural, Gender & Group Studies	\$36,147	\$25,911	**	**	\$11,552	\$30,055	\$27,338	**	
Education	\$41,353	\$41,473	\$42,491	\$43,801	\$31,049	\$31,313	\$31,471	\$34,384	
Engineering	\$73,740	\$74,191	\$74,470	\$81,037	\$53,056	\$53,197	\$56,697	\$58,021	
Engineering Technologies	\$60,495	\$59,796	\$56,537	\$66,756	\$46,832	\$48,272	\$58,005	\$52,856	
English/Letters	\$35,995	\$34,748	\$34,884	\$35,974	\$24,340	\$25,668	\$23,079	\$27,052	
Family & Consumer Sciences	\$33,860	\$38,138	\$39,120	\$39,907	\$24,987	\$25,819	\$25,695	\$28,400	
Foreign Languages	\$35,436	\$37,482	\$37,366	\$36,404	\$24,074	\$25,141	\$27,516	\$28,827	
Health Professions	\$54,117	\$54,832	\$56,931	\$57,641	\$45,017	\$43,810	\$45,896	\$46,176	
History	\$37,040	\$39,217	\$38,973	\$41,284	\$24,958	\$26,052	\$23,235	\$27,404	
Protective Services	\$38,947	\$39,212	\$41,117	\$44,463	\$28,605	\$26,148	\$29,293	\$30,392	
Liberal Arts/General Studies	\$34,428	\$39,129	\$41,170	\$46,411	\$28,382	\$29,176	\$31,015	\$34,533	
Mathematics & Statistics	\$49,794	\$45,998	\$51,136	\$58,825	\$36,109	\$33,243	\$36,539	\$38,702	
Multi/Interdisciplinary Studies	\$41,411	\$48,887	\$50,353	\$44,756	\$31,697	\$30,689	\$50,250	\$49,800	
Natural Resources/Conservation	\$46,747	\$50,487	\$48,330	\$57,587	\$32,918	\$31,005	\$31,366	\$27,791	
Parks, Recreation, & Fitness	\$39,397	\$39,505	\$36,293	\$45,648	\$22,680	\$21,218	\$25,016	\$22,894	
Personal & Culinary Services					**	\$17,675	\$15,950	\$19,486	
Philosophy & Religion	\$44,327	\$41,091	\$44,865	\$46,623	\$24,893	\$20,680	\$21,922	\$24,911	
Physical Sciences	\$55,980	\$49,770	\$56,573	\$54,406	\$29,125	\$29,518	\$28,484	\$32,819	
Psychology	\$35,259	\$35,861	\$36,140	\$37,561	\$23,121	\$21,530	\$22,369	\$23,295	
Public Admin & Social Serv	\$33,885	\$34,787	\$35,391	\$38,106	\$24,906	\$23,890	\$26,645	\$26,604	
Social Sciences	\$41,712	\$39,440	\$41,315	\$43,587	\$26,251	\$25,112	\$25,714	\$26,961	
Transportation/Material Moving							**	\$15,780	
Visual & Performing Arts	\$34,640	\$35,181	\$34,354	\$34,931	\$23,231	\$23,635	\$23,070	\$24,723	

Note: Asterisks (**) indicate data withheld to protect the privacy of individuals. Data are not reported for 5 or fewer graduates or employed graduates.

Figure 11
Average Salaries by Field of Study
for All Graduates
After Five Years
2012 Bachelor Degree Recipients
(Total Graduates in Parentheses)

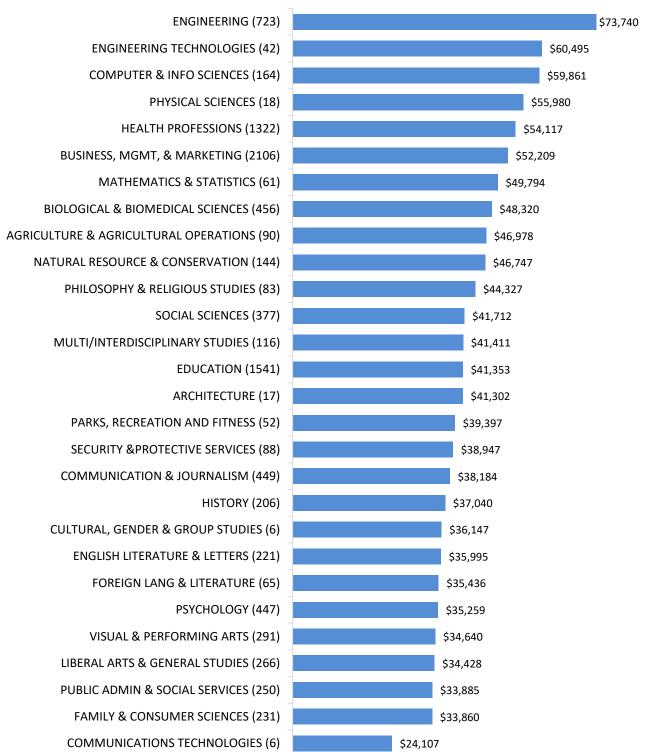


Figure 12
Average Salaries by Field of Study
for All Graduates
After Five Years
2013 Bachelor Degree Recipients
(Total Graduates in Parentheses)

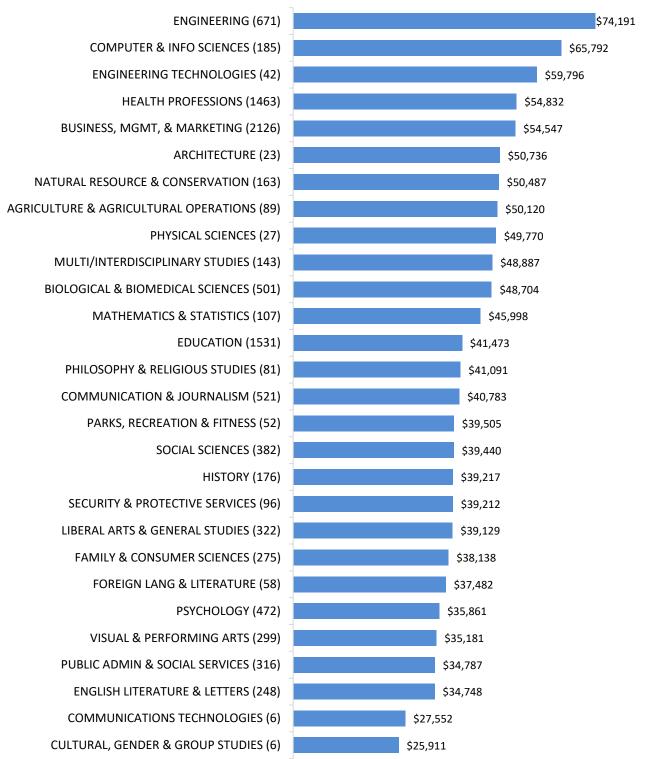


Figure 13
Average Salaries by Field of Study
for All Graduates
After Five Years
2014 Bachelor Degree Recipients
(Total Graduates in Parentheses)

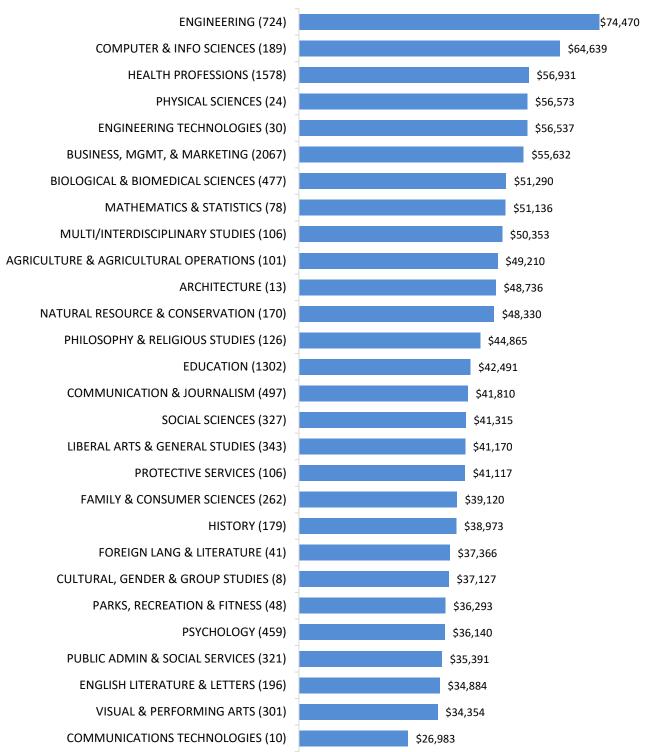
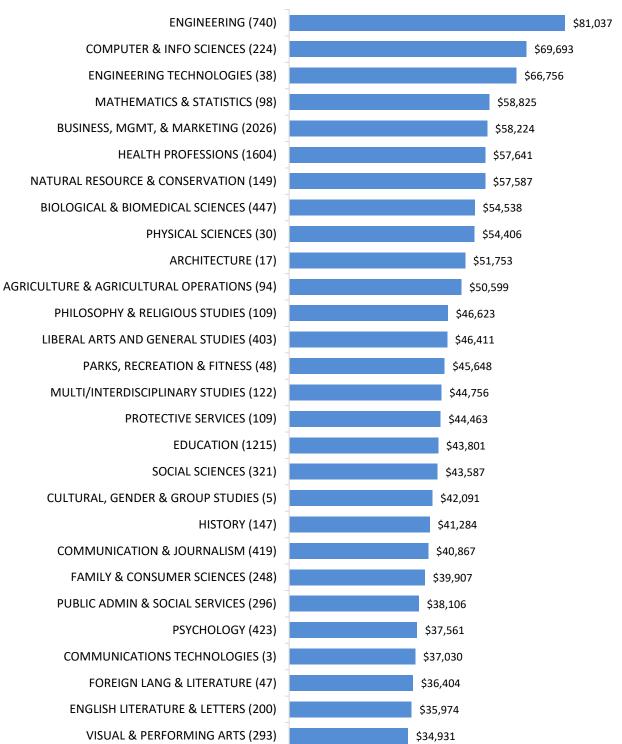


Figure 14
Average Salaries by Field of Study
for All Graduates
After Five Years
2015 Bachelor Degree Recipients
(Total Graduates in Parentheses)



Alabama Residents Only

Employment Rate Comparison

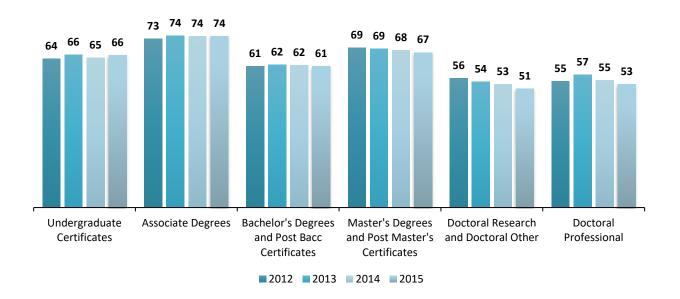
- Five years after graduation, 61.2% of the 2015 bachelor's degree recipients who were Alabama residents were employed in Alabama. More undergraduate certificate (65.8%), associate degree (74.1%), and master's degree (67.0%) recipients remained in Alabama, while fewer doctoral research/other and doctoral professional degree holders (51.4 and 53.3%, respectively) were found in Alabama after five years.
- Compared to the previous study of 2013 graduates, employment rates for 2015 graduates were lower for all degree levels. The doctoral professional (-4.0 percentage points) and doctoral research/other (-2.9 percentage points) had the largest declines. The master's level had the next largest decline (-1.6 percentage points). The remaining programs had slight declines (-0.6 percentage points or less) over the same time period.
- Alabama residents at all degree levels were more likely to remain in Alabama after five years than non-resident graduates (see Table 11, page 35). The differences were more extreme for bachelor's degrees through doctoral professional degrees. For instance, among doctoral professional degree graduates, 53.3% of Alabama residents remained versus 8.8% of non-residents. Non-resident undergraduate certificate holders and associate degree graduates were more likely to remain at 40.9% and 32.1%, respectively.

Table 8
Alabama Employment by Degree Level
After Five Years
for Alabama Residents Only

Dograd Lovel	N	lumber of	Graduate	:S	Perce	ent Employ	yed in Ala	bama
Degree Level	2012	2013	2014	2015	2012	2013	2014	2015
Undergraduate Certificates	4,296	4,104	3,749	4,086	64.2%	66.1%	64.8%	65.8%
Associate Degrees	8,940	8,554	8,421	8,926	73.0%	74.2%	74.0%	74.1%
Bachelor's Degrees & Post Baccalaureate Certificates	15,770	16,455	15,947	15,793	61.1%	61.8%	61.6%	61.2%
Master's Degrees & Post Master's Certificates	5,797	5,614	5,520	5,350	69.0%	68.6%	67.9%	67.0%
Doctoral Research & Doctoral Other	276	256	266	321	55.8%	54.3%	53.4%	51.4%
Doctoral Professional	730	694	675	683	54.5%	57.3%	55.0%	53.3%
Grand Total	35,809	35,677	34,578	35,159	65.5%	66.2%	65.8%	65.6%

Figure 15
Percentage of Alabama Employment by Degree Level

After Five Years
for 2012, 2013, 2014 and 2015 Graduates
for Alabama Residents Only



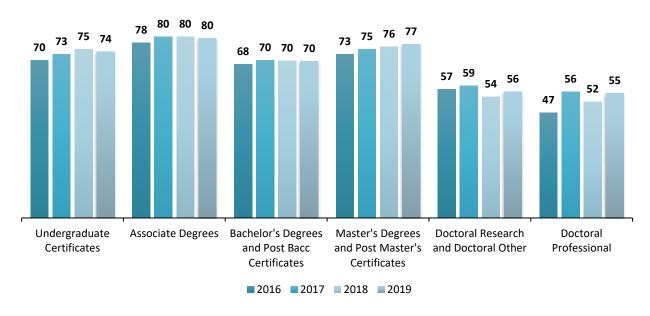
- One year after graduation, 69.6% of the 2019 Alabama resident bachelor's degree recipients were employed in Alabama (see Table 9, page 32). Employment rates for graduates at other degree levels ranged from 55.4% to 79.9%: 73.8% of undergraduate certificate holders, 79.9% of associate degree holders, 77.1% of master's, 56.0% of doctoral research/other, and 55.4% of doctoral professional degree holders remained in Alabama.
- Alabama residents at all degree levels were also more likely to remain in Alabama after one year than non-resident graduates. The differences were more extreme for bachelor's degrees through doctoral professional degrees. Among master's degree graduates, 77.1% of Alabama residents remained versus 14.7% of non-residents (see Table 12, page 36). Undergraduate certificate holders and associate degree graduates were more likely to remain at 48.1% and 31.1%, respectively.

Table 9
Alabama Employment by Degree Level
After One Year
for Alabama Residents Only

Degree Level	ı	lumber of	Graduate	·s	Percent Employed in Alabama			
Degree Level	2016	2017	2018	2019	2016	2017	2018	2019
Undergraduate Certificates	4,539	4,712	5,012	6,583	70.2%	72.7%	75.0%	73.8%
Associate Degrees	8,827	8,925	8,945	9,723	77.8%	80.5%	80.4%	79.9%
Bachelor's Degrees & Post Baccalaureate Certificates	16,552	16,454	16,961	16,896	68.4%	70.0%	69.8%	69.6%
Master's Degrees & Post Master's Certificates	5,542	5,791	5,786	5,907	72.8%	75.0%	76.2%	77.1%
Doctoral Research & Doctoral Other	276	286	288	257	57.2%	58.7%	53.8%	56.0%
Doctoral Professional	672	621	543	549	46.7%	56.0%	51.6%	55.4%
Grand Total	36,408	36,789	37,535	39,915	71.1%	73.4%	73.6%	73.6%

Figure 16
Percentage of Alabama Employment by Degree Level

After One Year
for 2016, 2017, 2018 and 2019 Graduates
for Alabama Residents Only



Employment by Field of Study

Alabama employment rates after five years are provided below by field of study (with at least six employed graduates) for Alabama residents who earned bachelor's degrees in 2015. (Refer to the Tables section *Bachelor's Degree Employment by Residency Status and Field of Study* for detailed data pertaining to resident and non-resident graduates.)

- The three <u>most popular</u> fields of study for 2015 Alabama resident bachelor's degree graduates were business, management, & marketing (3,202 graduates), health professions (2,269), and education (1,602). Graduates in all three fields posted above average Alabama employment rates five years after graduation: 61.1% of business, management, & marketing, 69.3% of health professions, and 73.5% of education majors.
- Of the resident 2015 bachelor's degree recipients, the following fields of study had the <u>highest</u> Alabama employment rates after five years: education (73.5% of 1,602 graduates), health professions (69.3% of 2,269 graduates), protective services (68.1% of 590 graduates), and mathematics and statistics (65.7% of 178 graduates).
- The following fields of study had the <u>lowest Alabama</u> employment rates for 2015 Alabama resident bachelor's degree graduates after five years: architecture (24.3% of 37 graduates), biological sciences (50.2% of 868 graduates), engineering (51.7% of 1,266 graduates), and communications (51.7% of 784 graduates).

Average Salary Comparison

- Five years after graduation, 2015 bachelor's degree recipients who were Alabama residents when they entered college were earning \$52,200 on average. This salary is higher than the average for both prior 2013 and 2014 graduates (see Table 10, page 34).
- On average, 2015 undergraduate certificate and associate degree recipients' earnings were 40.9 and 22.9% less, respectively, than bachelor's degree recipients after five years (\$37,040 and \$42,488, compared to \$52,200).
- Master's degree recipients earned \$69,935, on average, which is 34.0% more than bachelor's degree recipients, while doctoral research/other degree recipients earned 71.8% more (at \$89,674), and doctoral professional degree recipients earned 119.7% more (\$114,675) than bachelor's degree recipients after five years.
- Average earnings for 2015 graduates after five years were gradually higher than the 2012, 2013, and 2014 graduates after five years at all levels, with the exception of undergraduate certificate recipients (\$33,805 for 2012 compared to \$33,453 for 2013) and doctoral research/other recipients (\$84,013 for 2013 compared to \$77,023 for 2014).

- Significant salary variations by degree level were also found one year after graduation. On average, 2019 undergraduate certificate and associate degree recipients' earnings were 25.9 and 13.7% less, respectively, than bachelor's degree recipients after one year (\$30,045 and \$33,277, compared to \$37,826).
- The disparity between bachelor's degree recipients and doctoral professional degrees declined from 2017 through 2019, going from 123.1% to 107.2%. Similarly, master's and doctoral research/other degrees each saw a decrease in growth (60.5% for master's degrees in 2017 versus 54.8% in 2019; and 125.7% for doctoral research/other degrees in 2017 versus 83.0% in 2017). This points to the positive long-term earning power of professional degree holders.
- At all degree levels, the average salary for Alabama residents after five years was higher than after one year.

Table 10
Average Salary by Degree Level for Alabama Residents Only

Degree Level		After Fi	ve Years			After O	ne Year	
Degree Level	2012	2013	2014	2015	2016	2017	2018	2019
Undergraduate Certificates	\$33,805	\$33,453	\$35,521	\$37,040	\$27,596	\$28,579	\$29,021	\$30,045
Associate Degrees	\$38,914	\$39,139	\$40,036	\$42,488	\$31,350	\$31,106	\$32,338	\$33,277
Bachelor's Degrees & Post Bacc Certificates	\$47,357	\$48,052	\$49,644	\$52,200	\$34,747	\$34,430	\$36,259	\$37,826
Master's Degrees & Post Master's Cert	\$60,578	\$63,328	\$64,866	\$69,935	\$54,525	\$55,271	\$56,813	\$58,550
Doctoral Research & Doctoral Other	\$80,403	\$84,013	\$77,023	\$89,674	\$68,342	\$77,694	\$70,862	\$69,216
Doctoral Professional	\$102,307	\$107,001	\$108,977	\$114,675	\$75,502	\$76,815	\$75,687	\$78,381

Non-Alabama Residents Only

Employment Rate Comparison

• Of all of the bachelor's degree recipients in 2015, 27.9% (6,115 of 21,908) were from out-of-state. Five years after graduation, 13.0% of these non-residents were employed in Alabama. Graduates at other degree levels remained in Alabama at varying rates. Undergraduate certificate and associate degree recipients remained at higher rates (40.9% and 32.1%, respectively). The remaining degree recipients remained at rates below the bachelor's level: master's (8.9%), doctoral research/other (9.5%), and doctoral professional degrees (8.8%). Alabama employment rates for non-resident graduates varied from the two previous studies (2013 and 2014) which is due to the fewer numbers of graduates. Undergraduate certificates experienced the most variance during the time period (47.5% in 2013 versus 40.9% in 2015).

Table 11
Alabama Employment by Degree Level
After Five Years
for Non-Alabama Residents Only

Degree Level		Number of G	raduates			Percent E	mployed	
Degree Level	2012	2013	2014	2015	2012	2013	2014	2015
Undergraduate Certificates	295	219	215	215	41.7%	47.5%	41.9%	40.9%
Associate Degrees	747	705	779	664	27.2%	31.6%	36.1%	32.1%
Bachelor's Degrees & Post Bacc Certificates	4,644	5,117	5,626	6,115	14.3%	14.4%	12.9%	13.0%
Master's Degrees & Post Master's Cert	3,002	3,127	3,169	3,433	9.6%	8.6%	8.3%	8.9%
Doctoral Research & Doctoral Other	395	422	426	433	13.9%	13.0%	16.2%	9.5%
Doctoral Professional	330	417	468	501	13.3%	7.7%	9.6%	8.8%

- Of all of the 2019 bachelor's degree recipients, 34.7% (8,980 of 25,876) were from out-of-state (see Table 12, page 36). One year after graduation, 18.1% of those non-resident bachelor's degree recipients were employed in Alabama.
- From 2017 through 2019, undergraduate employment rates decreased while graduate employment rates increased. Degree levels with decreases included undergraduate certificates (from 54% to 48.1%), associate (39.6% to 31.1%), and bachelor's (20.2% to 18.1%) degrees. Degree levels with increases included master's (12.6% to 14.7%), doctoral research/other (17.2% to 18.9%), and doctoral professional (14.2% to 15.7%) degrees.

Table 12
Alabama Employment by Degree Level

After One Year
for Non-Alabama Residents Only

Degree Level		Number o	f Graduates			Percent E	mployed	
Degree Level	2016	2017	2018	2019	2016	2017	2018	2019
Undergraduate Certificates	219	215	205	322	49.3%	54.0%	47.8%	48.1%
Associate Degrees	679	785	725	787	35.9%	39.6%	32.7%	31.1%
Bachelor's Degrees & Post Bacc Certificates	6,602	7,311	8,346	8,980	17.9%	20.2%	19.9%	18.1%
Master's Degrees & Post Master's Cert	3,514	3,832	4,603	4,749	11.7%	12.6%	13.8%	14.7%
Doctoral Research & Doctoral Other	470	465	436	456	20.2%	17.2%	19.0%	18.9%
Doctoral Professional	493	522	698	709	10.8%	14.2%	16.0%	15.7%

Employment by Field of Study

Alabama employment rates after five years are highlighted by field of study (with at least six employed graduates) for non-Alabama residents who earned bachelor's degrees in 2015. (Refer to the Tables section *Bachelor's Degree Employment by Residency Status and Field of Study* for more detailed data pertaining to 2015 and 2019 graduates.)

- Business, management, & marketing (1,560) was the <u>most popular</u> field of study for 2015 non-resident bachelor's degree graduates (as well as for resident graduates), with health professions (720), engineering (658), and communications (515) being among the most popular programs. Alabama employment rates for the non-resident graduates in these fields were 9.7%, 15.1%, 15.8%, and 9.1%, respectively.
- Of the non-resident 2015 bachelor's degree recipients, the following fields of study had the <u>highest</u> Alabama employment rates after five years: architecture (28.1% of 32 graduates), parks, recreation, and fitness (23.6% of 55 graduates), and education (22.9% of 401 graduates). Several additional programs were around 16%.
- Of the 2015 Alabama non-resident graduates who earned bachelor's degrees, the
 following fields of study had the <u>lowest</u> Alabama employment rates after five years:
 history (8.8% of 80 graduates), communications (9.1% of 515 graduates), business,
 management, and marketing (9.7% of 1,560), and family and consumer sciences (9.8% of
 215 graduates).

Average Salary Comparison

- Five years after graduation, 2015 bachelor's degree recipients who were non-Alabama residents when they entered college were earning \$54,063 on average. This salary is higher than the average for both of the previous two years studied (2013 and 2014 graduates).
- On average, 2015 undergraduate certificate and associate degree recipients' earnings were 35.4 and 19.1% less, respectively, than bachelor's degree recipients after five years (\$39,928 and \$45,388, compared to \$54,063).
- Master's degree recipients earned \$69,337, on average, which is 28.3% more than bachelor's degree recipients, while doctoral research/other degree recipients earned 47.4% more (\$79,703), and doctoral professional degree recipients earned 103.2% more (\$109,875) than bachelor's degree recipients after five years. These increased percentages are significantly lower than those for Alabama residents.
- Average earnings for 2015 graduates after five years were higher than the 2013 and 2014 graduates after five years at all levels with the exception of undergraduate certificates (\$36,498 for 2013 compared to \$35,867 for 2014).
- Average earnings for 2019 graduates after one year were not as consistent. The only two
 levels consistently higher than their 2017 and 2018 counterparts were the bachelor's,
 master's, and doctoral professional degree levels. It should be noted this greater degree of
 fluctuation in year-over-year results is more likely with non-residents because the number
 of graduates is lower.

Table 13
Average Salary by Degree Level for Non-Alabama Residents Only

Degree Level		After Fi	ive Years			After O	ne Year	
Degree Level	2012	2013	2014	2015	2016	2017	2018	2019
Undergraduate Certificates	\$35,345	\$36,498	\$35,867	\$39,928	\$30,539	\$26,591	\$30,148	\$30,327
Associate Degrees	\$39,439	\$39,837	\$42,036	\$45,388	\$30,563	\$30,605	\$34,569	\$33,417
Bachelor's Degrees & Post Bacc Certificates	\$48,705	\$50,467	\$51,814	\$54,063	\$33,814	\$33,842	\$36,194	\$37,219
Master's Degrees & Post Master's Cert	\$60,177	\$60,550	\$62,540	\$69,337	\$50,172	\$48,766	\$49,306	\$59,307
Doctoral Research & Doctoral Other	\$73,124	\$74,215	\$79,444	\$79,703	\$49,503	\$52,570	\$50,420	\$53,400
Doctoral Professional	\$86,283	\$86,914	\$89,165	\$109,875	\$59,863	\$59,566	\$71,815	\$81,959

CONCLUSIONS

Salaries

The findings of this study indicate higher salaries are related to higher levels of educational attainment. Employment data for graduates of Alabama public two-year and four-year institutions confirm that, on average, more advance degrees typically produce higher earnings.

- Five years after graduation, 2015 bachelor's degree recipients employed in Alabama were earning \$52,340 on average. During this same time period, associate degree recipients and undergraduate certificate holders earned an average of \$37,136 and \$42,579, respectively.
- Compared to bachelor's degree holders after five years, master's degree recipients earned 33.5% more (\$69,890); doctoral research/other degree recipients earned 59.7% more (\$83,590); and doctoral professional degree recipients earned, on average, 118.1% more (\$114,170).

In addition, the study suggests salary differences exist among major fields of study.

Graduates with engineering, computer and information sciences, and engineering technologies degrees consistently earn higher average salaries (\$81,037, \$69,693, and \$66,756, respectively, for 2015 bachelor's degree recipients after five years) although mathematics and statistics, business, management, and marketing, and health professions graduates also earn higher average salaries (\$58,825, \$58,224, and \$57,641, respectively). Conversely, visual and performing arts and English literature and letters earned lower average salaries (\$34,931 and \$35,974, respectively) over five years.

Retention

Overall, Alabama is retaining a majority of its graduates (52.8%), even after five years. Outward migration is evident, particularly at the higher-level degrees. However, most of this migration is assumed to be non-resident graduates returning to their home state after earning their degree.

All Graduates

- Five years after graduation, 47.7% of the 2015 bachelor's degree recipients were employed in Alabama. More undergraduate certificate (64.5%) and associate degree (71.2%) recipients remained in Alabama, and fewer master's (44.3%), doctoral research/other (27.3%) and doctoral professional (34.5%) graduates remained.
- One year after graduation, 51.7% of the 2019 bachelor's degree recipients were employed in Alabama. More undergraduate certificate and associate degree recipients (72.6% and 76.3%, respectively) remained in Alabama, and fewer master's (49.3%), doctoral research/other (32.3%), and doctoral professional (33.0%) graduates remained.

Alabama Residents versus Non-Residents

- Alabama residents at all degree levels were more likely to remain in Alabama after five
 years than non-resident graduates. The differences were more extreme for bachelor's
 degrees through doctoral professional degrees. Among 2015 doctoral professional degree
 graduates, 53.3% of Alabama residents remained versus 8.8% of non-residents. Nonresident undergraduate certificate holders and associate degree graduates were more
 likely to remain at 40.9% and 32.1%, respectively.
- Alabama residents at all degree levels were also more likely to remain in Alabama after one year than non-resident graduates. The differences, again, were more extreme for bachelor's degrees through doctoral professional degrees. Among master's degree graduates, 77.1% of Alabama residents remained versus 14.7% of non-residents. Undergraduate certificate holders and associate degree non-resident graduates were more likely to remain at 48.1% and 31.1%, respectively.

In conclusion, this report is not founded on assumptions or estimates, but based on factual data linking graduation data with labor data across multiple time periods. It clearly highlights the connection between educational attainment, personal income, and workforce development. The results demonstrate the importance of the state's system of higher education in building a competitive and highly-trained workforce. The state must continue to support its institutions of higher learning, and leverage their resources, to ensure a highly skilled, college-educated workforce which is critical to improving the future of Alabama and its citizenry.

Employment Outcomes Report 2022

TABLES

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Bachelor's Degree Employment by Field of Study

Alabama Employment by Field of Study Bachelor's Degree Recipients 2015 Graduates – After Five Years

		All Graduates	
Field of Study	Number of Graduates	Number Employed	Percent Employed
Agriculture	213	96	45.1%
Architecture	69	18	26.1%
Area & Ethnic Studies	**	**	**
Biological Sciences	1,272	482	37.9%
Business, Mgmt, & Marketing	4,762	2,109	44.3%
Communications	1,299	452	34.8%
Communications Technologies	**	**	**
Computer & Info Sciences	407	230	56.5%
Education	2,003	1,270	63.4%
Engineering	1,924	758	39.4%
Engineering Technologies	76	39	51.3%
English/Letters	428	223	52.1%
Family & Consumer Sciences	643	274	42.6%
Foreign Languages	132	54	40.9%
Health Professions	2,989	1,682	56.3%
History	339	161	47.5%
Liberal Arts/General Studies	196	110	56.1%
Mathematics & Statistics	233	126	54.1%
Multi/ Interdisciplinary Studies	380	164	43.2%
Natural Resources & Conservation	96	49	51.0%
Parks, Recreation, & Fitness	230	118	51.3%
Philosophy & Religion	67	32	47.8%
Physical Sciences	299	123	41.1%
Protective Services	714	423	59.2%
Psychology	980	461	47.0%
Public Admin & Social Services	556	314	56.5%
Social Sciences	809	347	42.9%
Visual & Performing Arts	765	329	43.0%

Alabama Employment by Field of Study Bachelor's Degree Recipients 2014 Graduates – After Five Years

		All Graduates	
	Number of	Number	Percent
Field of Study	Graduates	Employed	Employed
Agriculture	219	109	49.8%
Architecture	91	13	14.3%
Area & Ethnic Studies	17	8	47.1%
Biological Sciences	1,249	515	41.2%
Business, Mgmt, & Marketing	4,657	2,130	45.7%
Communications	1,367	531	38.8%
Communications Technologies	23	11	47.8%
Computer & Info Sciences	352	192	54.5%
Education	2,140	1,337	62.5%
Engineering	1,755	736	41.9%
Engineering Technologies	60	33	55.0%
English/Letters	383	207	54.0%
Family & Consumer Sciences	631	281	44.5%
Foreign Languages	123	48	39.0%
Health Professions	2,745	1,635	59.6%
History	366	190	51.9%
Liberal Arts/General Studies	143	81	56.6%
Mathematics & Statistics	213	109	51.2%
Multi/ Interdisciplinary Studies	427	183	42.9%
Natural Resources & Conservation	108	49	45.4%
Parks, Recreation, & Fitness	210	130	61.9%
Philosophy & Religion	63	27	42.9%
Physical Sciences	308	110	35.7%
Protective Services	663	369	55.7%
Psychology	1,025	493	48.1%
Public Admin & Social Services	582	332	57.0%
Social Sciences	873	352	40.3%
Visual & Performing Arts	780	336	43.1%

Alabama Employment by Field of Study Bachelor's Degree Recipients 2013 Graduates – After Five Years

		All Graduates	
Field of Study	Number of Graduates	Number Employed	Percent Employed
Agriculture	213	93	43.7%
Architecture	73	24	32.9%
Area & Ethnic Studies	15	7	46.7%
Biological Sciences	1,226	535	43.6%
Business, Mgmt, & Marketing	4,604	2,192	47.6%
Communications	1,282	563	43.9%
Communications Technologies	21	8	38.1%
Computer & Info Sciences	337	186	55.2%
Education	2,431	1,583	65.1%
Engineering	1,560	689	44.2%
Engineering Technologies	70	44	62.9%
English/Letters	487	265	54.4%
Family & Consumer Sciences	659	296	44.9%
Foreign Languages	148	63	42.6%
Health Professions	2,588	1,517	58.6%
History	385	190	49.4%
Liberal Arts/General Studies	207	114	55.1%
Mathematics & Statistics	263	148	56.3%
Multi/ Interdisciplinary Studies	417	182	43.6%
Natural Resources & Conservation	104	54	51.9%
Parks, Recreation, & Fitness	176	85	48.3%
Philosophy & Religion	76	30	39.5%
Physical Sciences	286	103	36.0%
Protective Services	622	339	54.5%
Psychology	1,062	517	48.7%
Public Admin & Social Services	565	339	60.0%
Social Sciences	931	415	44.6%
Visual & Performing Arts	764	329	43.1%

Alabama Employment by Field of Study Bachelor's Degree Recipients 2012 Graduates – After Five Years

		All Graduates	
	Number of	Number	Percent
Field of Study	Graduates	Employed	Employed
Agriculture	199	92	46.2%
Architecture	65	17	26.2%
Area & Ethnic Studies	18	7	38.9%
Biological Sciences	1,128	491	43.5%
Business, Mgmt, & Marketing	4,497	2,170	48.3%
Communications	1,143	469	41.0%
Communications Technologies	12	7	58.3%
Computer & Info Sciences	315	167	53.0%
Education	2,365	1,586	67.1%
Engineering	1,603	739	46.1%
Engineering Technologies	72	43	59.7%
English/Letters	442	233	52.7%
Family & Consumer Sciences	573	236	41.2%
Foreign Languages	167	77	46.1%
Health Professions	2,347	1,383	58.9%
History	423	220	52.0%
Liberal Arts/General Studies	126	69	54.8%
Mathematics & Statistics	219	119	54.3%
Multi/ Interdisciplinary Studies	320	154	48.1%
Natural Resources & Conservation	96	53	55.2%
Parks, Recreation, & Fitness	158	86	54.4%
Personal & Culinary Services	63	24	38.1%
Philosophy & Religion	252	92	36.5%
Physical Sciences	529	283	53.5%
Protective Services	1,019	477	46.8%
Psychology	494	266	53.8%
Public Admin & Social Services	990	420	42.4%
Social Sciences	779	315	40.4%
Visual & Performing Arts	199	92	46.2%

Bachelor's Degree Employment by Residency Status and Field of Study

Alabama Employment by Residency Status and Field of Study Bachelor's Degree Recipients 2015 Graduates – After Five Years

		Resident		ı	Non-Resident		
Field of Study	Number of Graduates	Number Employed	Percent Employed	Number of Graduates	Number Employed	Percent Employed	
Agriculture	154	86	55.8%	59	10	16.9%	
Architecture	37	9	24.3%	32	9	28.1%	
Area & Ethnic Studies	8	**	**	12	**	**	
Biological Sciences	868	436	50.2%	404	46	11.4%	
Business, Mgmt, & Marketing	3,202	1,957	61.1%	1,560	152	9.7%	
Communications	784	405	51.7%	515	47	9.1%	
Communications Technologies	**	**	**	**	**	**	
Computer & Info Sciences	347	223	64.3%	60	7	11.7%	
Education	1,602	1,178	73.5%	401	92	22.9%	
Engineering	1,266	654	51.7%	658	104	15.8%	
Engineering Technologies	62	37	59.7%	14	**	**	
English/Letters	348	210	60.3%	80	13	16.3%	
Family & Consumer Sciences	428	253	59.1%	215	21	9.8%	
Foreign Languages	93	51	54.8%	39	**	**	
Health Professions	2,269	1,573	69.3%	720	109	15.1%	
History	259	154	59.5%	80	7	8.8%	
Liberal Arts/General Studies	178	107	60.1%	18	**	**	
Mathematics & Statistics	178	117	65.7%	55	9	16.4%	
Multi/ Interdisciplinary Studies	259	148	57.1%	121	16	13.2%	
Natural Resources & Conservation	76	46	60.5%	20	**	**	
Parks, Recreation, & Fitness	175	105	60.0%	55	13	23.6%	
Philosophy & Religion	57	31	54.4%	10	**	**	
Physical Sciences	219	115	52.5%	80	8	10.0%	
Protective Services	590	402	68.1%	124	21	16.9%	
Psychology	730	428	58.6%	250	33	13.2%	
Public Admin & Social Services	461	299	64.9%	95	15	15.8%	
Social Sciences	574	322	56.1%	235	25	10.6%	
Visual & Performing Arts	564	306	54.3%	201	23	11.4%	

Alabama Employment by Residency Status and Field of Study Bachelor's Degree Recipients 2019 Graduates – After One Year

		Resident		Non-Resident			
Field of Study	Number of Graduates	Number Employed	Percent Employed	Number of Graduates	Number Employed	Percent Employed	
Agriculture	169	96	56.8%	61	17	27.9%	
Architecture	48	21	43.8%	56	7	12.5%	
Area & Ethnic Studies	7	**	**	10	**	**	
Biological Sciences	1,122	686	61.1%	534	100	18.7%	
Business, Mgmt, & Marketing	3,431	2,334	68.0%	2,198	289	13.1%	
Communications	802	523	65.2%	708	84	11.9%	
Communications Technologies	17	12	70.6%	18	**	**	
Computer & Info Sciences	496	360	72.6%	192	38	19.8%	
Education	1,410	1,169	82.9%	424	123	29.0%	
Engineering	1,543	902	58.5%	1,171	229	19.6%	
Engineering Technologies	94	65	69.1%	14	**	**	
English/Letters	299	195	65.2%	94	25	26.6%	
Family & Consumer Sciences	389	248	63.8%	418	50	12.0%	
Foreign Languages	97	60	61.9%	38	11	28.9%	
Health Professions	2,398	1,980	82.6%	802	242	30.2%	
History	222	148	66.7%	93	13	14.0%	
Liberal Arts/General Studies	188	145	77.1%	61	19	31.1%	
Mathematics & Statistics	164	111	67.7%	77	12	15.6%	
Multi/Interdisciplinary Studies	351	239	68.1%	250	45	18.0%	
Natural Resources & Conservation	91	66	72.5%	40	15	37.5%	
Parks, Recreation, & Fitness	347	240	69.2%	92	20	21.7%	
Personal & Culinary Services	12	9	75.0%	**	**	**	
Philosophy & Religion	29	13	44.8%	12	**	**	
Physical Sciences	252	137	54.4%	117	31	26.5%	
Protective Services	493	359	72.8%	275	52	18.9%	
Psychology	758	511	67.4%	440	63	14.3%	
Public Admin & Social Services	504	410	81.3%	130	28	21.5%	
Social Sciences	560	338	60.4%	347	48	13.8%	
Transportation & Material Moving	10	**	**	11	**	**	
Visual & Performing Arts	593	376	63.4%	293	45	15.4%	

Average Salary by Degree Level and Field of Study

Average Salaries by Field of Study for All Graduates Undergraduate Certificate Recipients

T. I.I. 60: 1		After Fi	ve Years			After O	ne Year	
Field of Study	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	**	\$20,451	**	**	**	**	\$22,131	**
Architecture								
Area & Ethnic Studies								
Biological Sciences								
Business, Mgt, & Marketing	\$26,385	\$27,048	\$25,517	\$30,147	\$26,196	\$25,892	\$25,812	\$28,568
Communications								
Communications Tech	\$24,057	\$20,029	\$28,190	**	**	**	**	\$14,196
Computer & Info Sciences	\$33,412	\$28,978	\$47,767	\$36,964	\$35,903	\$26,557	\$32,010	\$32,450
Construction Trades	\$25,810	\$29,647	\$24,585	\$28,852	\$19,649	\$23,920	\$19,965	\$23,514
Education								
Engineering								
Engineering Technologies	\$39,787	\$34,316	\$38,580	\$42,959	\$39,972	\$39,711	\$35,475	\$39,717
English/Letters								
Family & Consumer Sciences	\$18,266	\$20,139	\$24,271	\$23,263	\$16,864	\$16,282	\$17,991	\$16,539
Foreign Languages							**	
Health Professions	\$36,477	\$36,017	\$37,285	\$38,634	\$27,382	\$27,136	\$30,409	\$33,025
History								
Protective Services	\$31,630	\$43,439	**	\$62,301	\$22,687	**	**	\$29,912
Legal Professions & Studies	**	**	**	**		**		**
Liberal Arts/General Studies								\$23,484
Library Science								
Mathematics & Statistics								
Mechanic & Repair Technicians	\$39,464	\$35,425	\$37,027	\$45,113	\$30,490	\$37,082	\$30,144	\$31,106
Military Sciences								
Multi/Interdisciplinary Studies	**		\$47,308	\$37,450	\$16,438	\$19,391	\$19,226	\$20,559
Natural Resources/Conservation	**	\$23,809	**	**	**	**	**	\$21,446
Parks, Recreation, & Fitness	\$20,508		**	**	**	\$26,138	\$28,899	**
Personal & Culinary Services	\$22,017	\$23,135	\$23,184	\$23,764	\$18,092	\$16,419	\$19,822	\$19,944
Philosophy & Religion								
Physical Sciences								
Precision Production	\$36,593	\$34,902	\$37,098	\$34,387	\$26,461	\$27,148	\$25,933	\$26,580
Psychology								
Public Admin & Social Serv								
Science Technologies	\$37,145	**						
Social Sciences	**	\$43,978	**	**	**	**		**
Transportation/Materials Moving	\$34,441	\$33,345	\$39,973	\$36,298	\$31,605	\$31,623	\$34,205	\$35,911
Visual & Performing Arts	\$16,873	\$20,555	**	**	**	\$18,485	\$17,397	**

Average Salaries by Field of Study for All Graduates Associate Degree Recipients

Field of Charles		After Fi	ve Years				After O	After One Year
eld of Study	2012	2013	2014	2015		2016	2016 2017	2016 2017 2018
griculture	\$50,403	\$53,223	**	**		**	** **	** ** **
rchitecture								
rea & Ethnic Studies								
Biological Sciences								
Business, Mgt, & Marketing	\$28,735	\$29,233	\$29,711	\$31,910	\$23	3,488	3,488 \$23,182	3,488 \$23,182 \$26,448
Communications								
Communications Tech	\$28,899	\$30,236	**	\$24,478	\$17,676		\$14,472	\$14,472 \$18,289
Computer & Info Sciences	\$39,174	\$36,483	\$37,695	\$42,403	\$29,392		\$29,292	\$29,292 \$29,797
Construction Trades	\$50,218	\$54,897	\$57,232	\$56,858	\$40,286		\$37,237	\$37,237 \$44,542
Education								
Engineering								
Engineering Technologies	\$50,126	\$48,253	\$49,899	\$54,146	\$38,717		\$37,675	\$37,675 \$39,645
English/Letters								
Family & Consumer Sciences	\$20,898	\$21,911	\$23,507	\$25,571	\$16,925		\$16,365	\$16,365 \$19,015
Foreign Languages								
Health Professions	\$46,334	\$45,561	\$46,470	\$47,288	\$42,033		\$41,853	\$41,853 \$42,966
History						١		
Protective Services	\$37,914	\$39,110	\$38,756	\$42,340	\$28,588	١	\$30,943	\$30,943 \$28,022
Legal Professions & Studies	\$23,571	\$32,046	\$22,600	\$32,751	\$23,248		\$22,472	\$22,472 \$22,044
Liberal Arts/General Studies	\$34,577	\$34,932	\$35,938	\$38,459	\$21,416		\$21,640	\$21,640 \$23,201
ibrary Science								
Mathematics & Statistics								
Mechanic & Repair Technicians	\$45,463	\$49,521	\$53,917	\$60,491	\$45,177		\$43,603	\$43,603 \$43,837
Military Sciences	**	**	**	**				
Multi/Interdisciplinary Studies	\$41,511	\$35,948	\$37,441	\$44,686	\$31,830		\$31,630	\$31,630 \$33,542
Natural Resource & Conservation	**	**	\$32,151	**			**	
Parks, Recreation, & Fitness	**		**	**			**	** **
Personal & Culinary Services	\$29,276	\$31,293	\$30,653	\$31,242	\$23,758		\$23,822	\$23,822 \$22,650
Philosophy & Religion								
Physical Sciences								
Precision Production	\$43,823	\$50,666	\$47,318	\$48,224	\$39,281		\$37,410	\$37,410 \$45,839
Psychology								
Public Admin & Social Serv	**	**		**				
Science Technologies		\$75,661	\$80,024	**	**		**	** **
Social Sciences								
Transportation/Materials Moving	**	**		**	**	I	**	** **
Visual & Performing Arts	\$22,786	\$26,657	\$30,881	\$31,356	\$22,051	l	\$18,988	\$18,988 \$19,517
	<u> </u>		<u> </u>	<u> </u>		<u> </u>		

Average Salaries by Field of Study For All Graduates Bachelor's Degree Recipients

		After Fi	ve Years			After O	ne Year	
Field of Study	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	\$46,978	\$50,120	\$49,210	\$50,599	\$30,925	\$28,877	\$27,575	\$33,338
Architecture	\$41,302	\$50,736	\$48,736	\$51,753	\$32,076	\$37,186	\$32,397	\$37,511
Area & Ethnic Studies	\$36,147	\$25,911	\$37,127	**	\$11,552	\$30,055	\$27,338	**
Biological Sciences	\$48,320	\$48,704	\$51,290	\$54,538	\$21,134	\$20,882	\$22,829	\$22,127
Business, Mgt, & Marketing	\$52,209	\$54,547	\$55,632	\$58,224	\$36,401	\$36,580	\$37,566	\$39,225
Communications	\$38,184	\$40,783	\$41,810	\$40,867	\$25,827	\$24,800	\$25,683	\$25,856
Communications Tech	\$24,107	\$27,552	\$26,983	**	**	\$17,000	**	\$19,786
Computer & Info Sciences	\$59,861	\$65,792	\$64,639	\$69,693	\$48,398	\$45,809	\$48,121	\$52,958
Construction Trades								
Education	\$41,353	\$41,473	\$42,491	\$43,801	\$31,049	\$31,313	\$31,471	\$34,384
Engineering	\$73,740	\$74,191	\$74,470	\$81,037	\$53,056	\$53,197	\$56,697	\$58,021
Engineering Technologies	\$60,495	\$59,796	\$56,537	\$66,756	\$46,832	\$48,272	\$58,005	\$52,856
English/Letters	\$35,995	\$34,748	\$34,884	\$35,974	\$24,340	\$25,668	\$23,079	\$27,052
Family & Consumer Sciences	\$33,860	\$38,138	\$39,120	\$39,907	\$24,987	\$25,819	\$25,695	\$28,400
Foreign Languages	\$35,436	\$37,482	\$37,366	\$36,404	\$24,074	\$25,141	\$27,516	\$28,827
Health Professions	\$54,117	\$54,832	\$56,931	\$57,641	\$45,017	\$43,810	\$45,896	\$46,176
History	\$37,040	\$39,217	\$38,973	\$41,284	\$24,958	\$26,052	\$23,235	\$27,404
Protective Services	\$38,947	\$39,212	\$41,117	\$44,463	\$28,605	\$26,148	\$29,293	\$30,392
Legal Professions & Studies								
Liberal Arts/General Studies	\$34,428	\$39,129	\$41,170	\$46,411	\$28,382	\$29,176	\$31,015	\$34,533
Library Science								
Mathematics & Statistics	\$49,794	\$45,998	\$51,136	\$58,825	\$36,109	\$33,243	\$36,539	\$38,702
Mechanic & Repair Technicians								
Military Sciences								
Multi/Interdisciplinary Studies	\$41,411	\$48,887	\$50,353	\$44,756	\$31,697	\$30,689	\$50,250	\$49,800
Natural Resource & Conservation	\$46,747	\$50,487	\$48,330	\$57,587	\$32,918	\$31,005	\$31,366	\$27,791
Parks, Recreation, & Fitness	\$39,397	\$39,505	\$36,293	\$45,648	\$22,680	\$21,218	\$25,016	\$22,894
Personal & Culinary Services					**	\$17,675	\$15,950	\$19,486
Philosophy & Religion	\$44,327	\$41,091	\$44,865	\$46,623	\$24,893	\$20,680	\$21,922	\$24,911
Physical Sciences	\$55,980	\$49,770	\$56,573	\$54,406	\$29,125	\$29,518	\$28,484	\$32,819
Precision Production								
Psychology	\$35,259	\$35,861	\$36,140	\$37,561	\$23,121	\$21,530	\$22,369	\$23,295
Public Admin & Social Serv	\$33,885	\$34,787	\$35,391	\$38,106	\$24,906	\$23,890	\$26,645	\$26,604
Science Technologies								
Social Sciences	\$41,712	\$39,440	\$41,315	\$43,587	\$26,251	\$25,112	\$25,714	\$26,961
Transportation/Materials Moving							**	\$15,780
Visual & Performing Arts	\$34,640	\$35,181	\$34,354	\$34,931	\$23,231	\$23,635	\$23,070	\$24,723

Average Salaries by Field of Study For All Graduates Master's Degree Recipients

		After Fi	ve Years			After C	ne Year	
Field of Study	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	\$48,406	\$53,694	\$49,560	\$45,617	\$31,240	\$38,193	\$26,876	\$28,966
Architecture	**	\$86,120	\$53,598	\$54,971	\$48,602	\$38,696	\$48,163	\$30,635
Area & Ethnic Studies	**	\$44,506		**	\$21,806	**	**	\$18,945
Biological Sciences	\$43,958	\$48,291	\$52,935	\$62,750	\$29,970	\$28,139	\$26,790	\$33,245
Business, Mgt, & Marketing	\$75,583	\$80,732	\$83,020	\$90,115	\$64,900	\$61,886	\$67,812	\$72,026
Communications	\$63,728	\$52,494	\$42,985	\$49,873	\$37,314	\$38,144	\$36,103	\$41,588
Communications Tech								
Computer & Info Sciences	\$72,715	\$86,885	\$81,444	\$85,247	\$65,447	\$63,118	\$66,423	\$70,145
Construction Trades								
Education	\$53,774	\$54,067	\$55,707	\$58,729	\$49,159	\$50,062	\$50,113	\$53,001
Engineering	\$90,591	\$96,865	\$94,710	\$102,43	\$75,786	\$71,515	\$72,027	\$76,092
Engineering Technologies	\$93,572	**	**	**	**	**		**
English/Letters	\$40,710	\$39,397	\$45,362	\$44,272	\$27,814	\$34,935	\$31,495	\$34,765
Family & Consumer Sciences	\$52,964	\$51,642	\$54,632	\$55,838	\$43,376	\$39,414	\$41,611	\$60,390
Foreign Languages	\$36,332	**	\$31,852	\$33,649	**	\$26,516	**	**
Health Professions	\$77,198	\$80,486	\$80,581	\$86,367	\$71,222	\$71,472	\$74,198	\$73,631
History	\$33,576	\$42,242	\$41,387	\$48,347	\$28,190	\$35,778	\$37,038	\$31,678
Protective Services	\$40,398	\$45,576	\$39,346	\$46,122	\$39,099	\$37,057	\$38,557	\$38,211
Legal Professions & Studies	**	\$68,386	**	**	**	\$77,840	\$130,136	\$120,84
Liberal Arts/General Studies	**	\$39,702	\$42,371	\$43,449	\$30,526	\$38,109	\$37,155	\$31,352
Library Science	\$43,880	\$44,177	\$46,186	\$49,077	\$35,005	\$40,372	\$39,915	\$41,337
Mathematics & Statistics	\$60,601	\$60,310	\$58,161	\$72,108	\$41,329	\$46,307	\$48,369	\$48,281
Mechanic & Repair Technicians								
Military Sciences								
Multi/Interdisciplinary Studies	**	**	\$55,543	\$53,770	\$35,058	\$80,890	\$73,339	\$68,889
Natural Resource & Conservation	**		**	**	**	**	**	**
Parks, Recreation, & Fitness	\$44,217	\$51,371	\$48,082	\$53,305	\$36,544	\$35,848	\$35,653	\$37,128
Personal & Culinary Services								
Philosophy & Religion							**	**
Physical Sciences	\$72,287	\$53,217	\$63,155	\$66,410	\$58,322	\$34,915	\$49,812	\$41,317
Precision Production								
Psychology	\$44,391	\$39,335	\$41,155	\$45,023	\$31,023	\$34,518	\$33,934	\$33,417
Public Admin & Social Serv	\$43,474	\$44,342	\$47,014	\$47,745	\$35,812	\$36,789	\$36,111	\$37,098
Science Technologies								
Social Sciences	\$40,124	\$51,852	\$56,885	\$41,553	\$33,090	\$35,240	\$35,810	\$45,187
Transportation/Materials Moving								
Visual & Performing Arts	\$30,213	\$40,367	\$34,610	\$45,606	\$37,769	\$30,262	\$31,868	\$25,842

Average Salaries by Field of Study For All Graduates Doctoral Research and Other Doctorate Recipients

T. I.I. 60: 1		After I	Five Years		After One Year				
Field of Study	2012	2013	2014	2015	2016	2017	2018	2019	
Agriculture	\$57,604	**	\$62,899	**	\$56,994	\$48,739	\$43,596	**	
Architecture									
Area & Ethnic Studies									
Biological Sciences	\$65,850	\$65,518	\$56,812	\$72,179	\$48,995	\$43,380	\$54,589	\$49,29	
Business, Mgt, & Marketing	**	**	\$128,757	\$118,981	\$101,78	\$74,978	\$85,443	**	
Communications	**	**	**	\$66,080	**	**	**	**	
Communications Tech									
Computer & Info Sciences	**	**	**	**	**	\$110,859	**	**	
Construction Trades									
Education	\$81,046	\$87,252	\$78,188	\$87,731	\$74,659	\$76,401	\$70,827	\$74,32	
Engineering	\$93,735	\$92,252	\$104,542	\$101,536	\$61,868	\$99,998	\$76,945	\$77,03	
Engineering Technologies								•	
English/Letters	**	**	**	\$51,629	\$41,384	\$25,257	**		
Family & Consumer Sciences		**		**		**	**		
Foreign Languages	**	**	**	**	**	**	**	**	
Health Professions	\$90,603	\$98,625	\$89,744	\$87,759	\$74,491	\$86,616	\$74,638	\$72,62	
History		**	**	**	**	**	**	**	
Protective Services									
Legal Professions & Studies									
Liberal Arts/General Studies									
Library Science									
Mathematics & Statistics	\$86,279	\$67,634	**	**	\$58,517	\$40,733	**	**	
Mechanic & Repair Technicians									
Military Sciences									
Multi/Interdisciplinary Studies	\$73,256	**	**	**	**	**	\$28,707	\$47,41	
Natural Resource & Conservation					**	**	**	**	
Parks, Recreation, & Fitness	\$87,597	\$85,882	\$58,526	**	\$49,646	\$68,628	\$77,306	\$50,47	
Personal & Culinary Services								_	
Philosophy & Religion									
Physical Sciences	\$82,489	**	\$67,318	\$95,514	\$51,323	\$69,187	\$49,512	\$64,02	
Precision Production									
Psychology	\$70,737	\$66,300	\$67,543	\$79,209	\$47,051	\$58,209	**	\$49,10	
Public Admin & Social Serv	**	**	**		**	**	\$41,997	**	
Science Technologies									
Social Sciences	**	**	**	\$75,706	**	**	**	**	
Transportation/Materials Moving									
Visual & Performing Arts		**	**	**	**	**	**	\$46,42	

Average Salaries by Field of Study For All Graduates Doctoral Professional Recipients

Field of Canala		After F	ive Years		After One Year				
Field of Study	2012	2013	2014	2015	2016	2017	2018	2019	
Agriculture									
Architecture									
Area & Ethnic Studies									
Biological Sciences									
Business, Mgt, & Marketing									
Communications									
Communications Tech									
Computer & Info Sciences									
Construction Trades									
Education	\$79,604	\$76,037	\$84,081	\$78,403	\$74,004	\$72,726	\$83,204	\$88,449	
Engineering									
Engineering Technologies									
English/Letters									
Family & Consumer Sciences									
Foreign Languages									
Health Professions	\$107,484	\$109,844	\$112,610	\$120,600	\$76,554	\$77,200	\$75,738	\$80,846	
History									
Protective Services									
Legal Professions & Studies	\$77,544	\$90,872	\$88,740	\$82,120	\$57,550	\$56,973	\$65,785	\$68,195	
Liberal Arts/General Studies									
Library Science									
Mathematics & Statistics									
Mechanic & Repair Technicians									
Military Sciences									
Multi/Interdisciplinary Studies									
Natural Resource & Conservation									
Parks, Recreation, & Fitness									
Personal & Culinary Services									
Philosophy & Religion									
Physical Sciences									
Precision Production									
Psychology									
Public Admin & Social Serv									
Science Technologies									
Social Sciences									
Transportation/Materials Moving									
Visual & Performing Arts									

Average Salaries by Field of Study and Degree Level After Five Years for All Graduates

F: 11 for 1	U	ndergradud	ate Certifica	tes		Associate	Degree	
Field of Study	2012	2013	2014	2015	2012	2013	2014	2015
Agriculture	**	\$20,451	**	\$28,272	\$50,403	\$53,223	**	**
Architecture								
Area & Ethnic Studies								
Biological Sciences								
Business, Mgt, & Marketing	\$26,385	\$27,048	\$25,517	\$30,147	\$28,735	\$29,233	\$29,711	\$31,91
Communications								•
Communications Tech	\$24,057	\$20,029	\$28,190	**	\$28,899	\$30,236	**	\$24,47
Computer & Info Sciences	\$33,412	\$28,978	\$47,767	\$36,964	\$39,174	\$36,483	\$37,695	\$42,40
Construction Trades	\$25,810	\$29,647	\$24,585	\$28,852	\$50,218	\$54,897	\$57,232	\$56,85
Education								
Engineering								
Engineering Technologies	\$39,787	\$34,316	\$38,580	\$42,959	\$50,126	\$48,253	\$49,899	\$54,14
English/Letters								-
Family & Consumer Sciences	\$18,266	\$20,139	\$24,271	\$23,263	\$20,898	\$21,911	\$23,507	\$25,57
Foreign Languages								•
Health Professions	\$36,477	\$36,017	\$37,285	\$38,634	\$46,334	\$45,561	\$46,470	\$47,28
History								
Protective Services	\$31,630	\$43,439	**	\$62,301	\$37,914	\$39,110	\$38,756	\$42,34
Legal Professions & Studies	**	**	**	**	\$23,571	\$32,046	\$22,600	\$32,75
Liberal Arts/General Studies					\$34,577	\$34,932	\$35,938	\$38,45
Library Science								•
Mathematics & Statistics								
Mechanic & Repair Technicians	\$39,464	\$35,425	\$37,027	\$45,113	\$45,463	\$49,521	\$53,917	\$60,49
Military Sciences					**	**	**	**
Multi/Interdisciplinary Studies	**		\$47,308	\$37,450	\$41,511	\$35,948	\$37,441	\$44,68
Natural Resource & Conservation	**	\$23,809	**	**	**	**	\$32,151	**
Parks, Recreation, & Fitness	\$20,508		**	**	**		**	**
Personal & Culinary Services	\$22,017	\$23,135	\$23,184	\$23,764	\$29,276	\$31,293	\$30,653	\$31,24
Philosophy & Religion								
Physical Sciences								
Precision Production	\$36,593	\$34,902	\$37,098	\$34,387	\$43,823	\$50,666	\$47,318	\$48,22
Psychology								
Public Admin & Social Serv					**	**		**
Science Technologies	\$37,145	**				\$75,661	\$80,024	**
Social Sciences	**	\$43,978	**	**				
Transportation/Materials Moving	\$34,441	\$33,345	\$39,973	\$36,298	**	**		**
Visual & Performing Arts	\$16,873	\$20,555	**	**	\$22,786	\$26,657	\$30,881	\$31,35

Average Salaries by Field of Study and Degree Level After Five Years for All Graduates, Continued

		Bachelor	's Degree			Master	's Degree	
Field of Study	2012	2013	2014	2015	2012	2013	2014	2015
Agriculture	\$46,978	\$50,120	\$49,210	\$50,599	\$48,406	\$53,694	\$49,560	\$45,617
Architecture	\$41,302	\$50,736	\$48,736	\$51,753	**	\$86,120	\$53,598	\$54,971
Area & Ethnic Studies	\$36,147	\$25,911	\$37,127	**	**	\$44,506		**
Biological Sciences	\$48,320	\$48,704	\$51,290	\$54,538	\$43,958	\$48,291	\$52,935	\$62,750
Business, Mgt, & Marketing	\$52,209	\$54,547	\$55,632	\$58,224	\$75,583	\$80,732	\$83,020	\$90,115
Communications	\$38,184	\$40,783	\$41,810	\$40,867	\$63,728	\$52,494	\$42,985	\$49,873
Communications Tech	\$24,107	\$27,552	\$26,983	**				
Computer & Info Sciences	\$59,861	\$65,792	\$64,639	\$69,693	\$72,715	\$86,885	\$81,444	\$85,247
Construction Trades								
Education	\$41,353	\$41,473	\$42,491	\$43,801	\$53,774	\$54,067	\$55,707	\$58,729
Engineering	\$73,740	\$74,191	\$74,470	\$81,037	\$90,591	\$96,865	\$94,710	\$102,436
Engineering Technologies	\$60,495	\$59,796	\$56,537	\$66,756	\$93,572	**	**	**
English/Letters	\$35,995	\$34,748	\$34,884	\$35,974	\$40,710	\$39,397	\$45,362	\$44,272
Family & Consumer Sciences	\$33,860	\$38,138	\$39,120	\$39,907	\$52,964	\$51,642	\$54,632	\$55,838
Foreign Languages	\$35,436	\$37,482	\$37,366	\$36,404	\$36,332	**	\$31,852	\$33,649
Health Professions	\$54,117	\$54,832	\$56,931	\$57,641	\$77,198	\$80,486	\$80,581	\$86,367
History	\$37,040	\$39,217	\$38,973	\$41,284	\$33,576	\$42,242	\$41,387	\$48,347
Protective Services	\$38,947	\$39,212	\$41,117	\$44,463	\$40,398	\$45,576	\$39,346	\$46,122
Legal Professions & Studies					**	\$68,386	**	**
Liberal Arts/General Studies	\$34,428	\$39,129	\$41,170	\$46,411	**	\$39,702	\$42,371	\$43,449
Library Science					\$43,880	\$44,177	\$46,186	\$49,077
Mathematics & Statistics	\$49,794	\$45,998	\$51,136	\$58,825	\$60,601	\$60,310	\$58,161	\$72,108
Mechanic & Repair Technicians								
Military Sciences								
Multi/Interdisciplinary Studies	\$41,411	\$48,887	\$50,353	\$44,756	**	**	\$55,543	\$53,770
Natural Resource & Conservation	\$46,747	\$50,487	\$48,330	\$57,587	**		**	**
Parks, Recreation, & Fitness	\$39,397	\$39,505	\$36,293	\$45,648	\$44,217	\$51,371	\$48,082	\$53,305
Personal & Culinary Services								
Philosophy & Religion	\$44,327	\$41,091	\$44,865	\$46,623				
Physical Sciences	\$55,980	\$49,770	\$56,573	\$54,406	\$72,287	\$53,217	\$63,155	\$66,410
Precision Production								
Psychology	\$35,259	\$35,861	\$36,140	\$37,561	\$44,391	\$39,335	\$41,155	\$45,023
Public Admin & Social Serv	\$33,885	\$34,787	\$35,391	\$38,106	\$43,474	\$44,342	\$47,014	\$47,745
Science Technologies								
Social Sciences	\$41,712	\$39,440	\$41,315	\$43,587	\$40,124	\$51,852	\$56,885	\$41,553
Transportation/Materials Moving								
Visual & Performing Arts	\$34,640	\$35,181	\$34,354	\$34,931	\$30,213	\$40,367	\$34,610	\$45,606

Average Salaries by Field of Study and Degree Level After Five Years for All Graduates, Continued

	Doctor	al Researd	h & Doctor	ral Other		Doctoral P	rofessional	
Field of Study	2012	2013	2014	2015	2012	2013	2014	2015
Agriculture	\$57,604	**	\$62,899	**				
Architecture								
Area & Ethnic Studies								
Biological Sciences	\$65,850	\$65,518	\$56,812	\$72,179				
Business, Mgt, & Marketing	**	**	\$128,757	\$118,981				
Communications	**	**	**	\$66,080				
Communications Tech								
Computer & Info Sciences	**	**	**	**				
Construction Trades								
Education	\$81,046	\$87,252	\$78,188	\$87,731	\$89,430	\$79,604	\$76,037	\$84,081
Engineering	\$93,735	\$92,252	\$104,542	\$101,536				
Engineering Technologies								
English/Letters	**	**	**	\$51,629				
Family & Consumer Sciences		**		**				
Foreign Languages	**	**	**	**				
Health Professions	\$90,603	\$98,625	\$89,744	\$87,759	\$101,147	\$107,484	\$109,844	\$112,610
History		**	**	**				
Protective Services								
Legal Professions & Studies					\$78,286	\$77,544	\$90,872	\$88,740
Liberal Arts/General Studies								
Library Science								
Mathematics & Statistics	\$86,279	\$67,634	**	**				
Mechanic & Repair Technicians								
Military Sciences								
Multi/Interdisciplinary Studies	\$73,256	**	**	**				
Natural Resource & Conservation								
Parks, Recreation, & Fitness	\$87,597	\$85,882	\$58,526	**				
Personal & Culinary Services								
Philosophy & Religion								
Physical Sciences	\$82,489	**	\$67,318	\$95,514				
Precision Production								
Psychology	\$70,737	\$66,300	\$67,543	\$79,209				
Public Admin & Social Serv	**	**	**					
Science Technologies								
Social Sciences	**	**	**	\$75,706				
Transportation/Materials Moving								
Visual & Performing Arts		**	**	**				

Average Salaries by Field of Study and Degree Level After One Year for All Graduates, Continued

	Ur	dergradua	te Certifica	tes		Associate	Degree	
Field of Study	2016	2017	2018	2019	2016	2017	2018	2019
Agriculture	**	**	\$22,131	**	**	**	**	**
Architecture								
Area & Ethnic Studies								
Biological Sciences								
Business, Mgt, & Marketing	\$26,196	\$25,892	\$25,812	\$28,568	\$23,488	\$23,182	\$26,448	\$25,785
Communications								
Communications Tech	**	**	**	\$14,196	\$17,676	\$14,472	\$18,289	\$14,684
Computer & Info Sciences	\$35,903	\$26,557	\$32,010	\$32,450	\$29,392	\$29,292	\$29,797	\$30,039
Construction Trades	\$19,649	\$23,920	\$19,965	\$23,514	\$40,286	\$37,237	\$44,542	\$37,623
Education								
Engineering								
Engineering Technologies	\$39,972	\$39,711	\$35,475	\$39,717	\$38,717	\$37,675	\$39,645	\$39,117
English/Letters								
Family & Consumer Sciences	\$16,864	\$16,282	\$17,991	\$16,539	\$16,925	\$16,365	\$19,015	\$21,205
Foreign Languages			**					
Health Professions	\$27,382	\$27,136	\$30,409	\$33,025	\$42,033	\$41,853	\$42,966	\$43,921
History								
Protective Services	\$22,687	**	**	\$29,912	\$28,588	\$30,943	\$28,022	\$29,325
Legal Professions & Studies		**		**	\$23,248	\$22,472	\$22,044	\$23,225
Liberal Arts/General Studies				\$23,484	\$21,416	\$21,640	\$23,201	\$23,300
Library Science								
Mathematics & Statistics								
Mechanic & Repair Technicians	\$30,490	\$37,082	\$30,144	\$31,106	\$45,177	\$43,603	\$43,837	\$46,583
Military Sciences								
Multi/Interdisciplinary Studies	\$16,438	\$19,391	\$19,226	\$20,559	\$31,830	\$31,630	\$33,542	\$35,660
Natural Resource & Conservation	**	**	**	\$21,446		**	**	**
Parks, Recreation, & Fitness	**	\$26,138	\$28,899	**		**	**	
Personal & Culinary Services	\$18,092	\$16,419	\$19,822	\$19,944	\$23,758	\$23,822	\$22,650	\$24,510
Philosophy & Religion								
Physical Sciences								
Precision Production	\$26,461	\$27,148	\$25,933	\$26,580	\$39,281	\$37,410	\$45,839	\$43,085
Psychology								
Public Admin & Social Serv								
Science Technologies					**	**	**	**
Social Sciences	**	**		**				
Transportation/Materials Moving	\$31,605	\$31,623	\$34,205	\$35,911	**	**	**	**
Visual & Performing Arts	**	\$18,485	\$17,397	**	\$22,051	\$18,988	\$19,517	\$16,562

Average Salaries by Field of Study and Degree Level After One Year for All Graduates, Continued

F. 11 CO. 1		Bachelor	's Degree			Master	's Degree	
Field of Study	2016	2017	2018	2019	2016	2017	2018	2019
Agriculture	\$30,925	\$28,877	\$27,575	\$33,338	\$31,240	\$38,193	\$26,876	\$28,966
Architecture	\$32,076	\$37,186	\$32,397	\$37,511	\$48,602	\$38,696	\$48,163	\$30,635
Area & Ethnic Studies	\$11,552	\$30,055	\$27,338	**	\$21,806	**	**	\$18,945
Biological Sciences	\$21,134	\$20,882	\$22,829	\$22,127	\$29,970	\$28,139	\$26,790	\$33,245
Business, Mgt, & Marketing	\$36,401	\$36,580	\$37,566	\$39,225	\$64,900	\$61,886	\$67,812	\$72,026
Communications	\$25,827	\$24,800	\$25,683	\$25,856	\$37,314	\$38,144	\$36,103	\$41,588
Communications Tech	**	\$17,000	**	\$19,786				
Computer & Info Sciences	\$48,398	\$45,809	\$48,121	\$52,958	\$65,447	\$63,118	\$66,423	\$70,145
Construction Trades								
Education	\$31,049	\$31,313	\$31,471	\$34,384	\$49,159	\$50,062	\$50,113	\$53,001
Engineering	\$53,056	\$53,197	\$56,697	\$58,021	\$75,786	\$71,515	\$72,027	\$76,092
Engineering Technologies	\$46,832	\$48,272	\$58,005	\$52,856	**	**		**
English/Letters	\$24,340	\$25,668	\$23,079	\$27,052	\$27,814	\$34,935	\$31,495	\$34,765
Family & Consumer Sciences	\$24,987	\$25,819	\$25,695	\$28,400	\$43,376	\$39,414	\$41,611	\$60,390
Foreign Languages	\$24,074	\$25,141	\$27,516	\$28,827	**	\$26,516	**	**
Health Professions	\$45,017	\$43,810	\$45,896	\$46,176	\$71,222	\$71,472	\$74,198	\$73,631
History	\$24,958	\$26,052	\$23,235	\$27,404	\$28,190	\$35,778	\$37,038	\$31,678
Protective Services	\$28,605	\$26,148	\$29,293	\$30,392	\$39,099	\$37,057	\$38,557	\$38,211
Legal Professions & Studies					**	\$77,840	\$130,136	\$120,848
Liberal Arts/General Studies	\$28,382	\$29,176	\$31,015	\$34,533	\$30,526	\$38,109	\$37,155	\$31,352
Library Science					\$35,005	\$40,372	\$39,915	\$41,337
Mathematics & Statistics	\$36,109	\$33,243	\$36,539	\$38,702	\$41,329	\$46,307	\$48,369	\$48,281
Mechanic & Repair Technicians								
Military Sciences								
Multi/Interdisciplinary Studies	\$31,697	\$30,689	\$50,250	\$49,800	\$35,058	\$80,890	\$73,339	\$68,889
Natural Resource & Conservation	\$32,918	\$31,005	\$31,366	\$27,791	**	**	**	**
Parks, Recreation, & Fitness	\$22,680	\$21,218	\$25,016	\$22,894	\$36,544	\$35,848	\$35,653	\$37,128
Personal & Culinary Services	**	\$17,675	\$15,950	\$19,486				
Philosophy & Religion	\$24,893	\$20,680	\$21,922	\$24,911			**	**
Physical Sciences	\$29,125	\$29,518	\$28,484	\$32,819	\$58,322	\$34,915	\$49,812	\$41,317
Precision Production								
Psychology	\$23,121	\$21,530	\$22,369	\$23,295	\$31,023	\$34,518	\$33,934	\$33,417
Public Admin & Social Serv	\$24,906	\$23,890	\$26,645	\$26,604	\$35,812	\$36,789	\$36,111	\$37,098
Science Technologies								
Social Sciences	\$26,251	\$25,112	\$25,714	\$26,961	\$33,090	\$35,240	\$35,810	\$45,187
Transportation/Materials Moving			**	\$15,780				
Visual & Performing Arts	\$23,231	\$23,635	\$23,070	\$24,723	\$37,769	\$30,262	\$31,868	\$25,842

Average Salaries by Field of Study and Degree Level After One Year for All Graduates, Continued

	Doctor	al Research	& Doctor	al Other		Doctoral P	rofessiona	ıl	
Field of Study	2016	2017	2018	2019	2016	2017	2018	2019	
Agriculture	\$56,994	\$48,739	\$43,596	**					
Architecture									
Area & Ethnic Studies									
Biological Sciences	\$48,995	\$43,380	\$54,589	\$49,297					
Business, Mgt, & Marketing	\$101,782	\$74,978	\$85,443	**					
Communications	**	**	**	**					
Communications Tech									
Computer & Info Sciences	**	\$110,859	**	**					
Construction Trades									
Education	\$74,659	\$76,401	\$70,827	\$74,322	\$74,004	\$72,726	\$83,204	\$88,449	
Engineering	\$61,868	\$99,998	\$76,945	\$77,034					
Engineering Technologies									
English/Letters	\$41,384	\$25,257	**						
Family & Consumer Sciences		**	**						
Foreign Languages	**	**	**	**					
Health Professions	\$74,491	\$86,616	\$74,638	\$72,628	\$76,554	\$77,200	\$75,738	\$80,846	
History	**	**	**	**					
Protective Services									
Legal Professions & Studies					\$57,550	\$56,973	\$65,785	\$68,195	
Liberal Arts/General Studies									
Library Science									
Mathematics & Statistics	\$58,517	\$40,733	**	**					
Mechanic & Repair Technicians									
Military Sciences									
Multi/Interdisciplinary Studies	**	**	\$28,707	\$47,417					
Natural Resource & Conservation	**	**	**	**					
Parks, Recreation, & Fitness	\$49,646	\$68,628	\$77,306	\$50,477					
Personal & Culinary Services									
Philosophy & Religion									
Physical Sciences	\$51,323	\$69,187	\$49,512	\$64,021					
Precision Production									
Psychology	\$47,051	\$58,209	**	\$49,107					
Public Admin & Social Serv	**	**	\$41,997	**					
Science Technologies									
Social Sciences	**	**	**	**					
Transportation/Materials Moving									
Visual & Performing Arts	**	**	**	\$46,425					

Employment Outcomes Report 2022

APPENDICES

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Appendix A: Classification of Instructional Programs (CIP)

The purpose of the Classification of Instructional Programs (CIP) is to provide a taxonomic scheme that will support the accurate tracking, assessment, and reporting of fields of study and program completions activity. CIP was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES) in 1980, with revisions occurring in 1985 and 1990. The 2000 edition (CIP-2000) is the third revision of the taxonomy and presents an updated taxonomy of instructional program classifications and descriptions.¹

The CIP categories below include only the CIP code descriptions found in the six cohorts included in this report.

Agriculture, Agriculture Operations, and Related Sciences

Agriculture, General

Agricultural Business and Management, General

Agribusiness/Agricultural Business Operations

Agricultural Economics

Agricultural Production Operations, General

Aquaculture

Applied Horticulture/Horticulture Operations, General

Ornamental Horticulture

Landscaping and Groundskeeping

Animal Sciences, General

Poultry Science

Animal Sciences, Other

Food Science

Agronomy and Crop Science

Horticultural Science

Plant Sciences, Other

Agriculture, Agriculture Operations, and Related Sciences, Other

Architecture and Related Services

Architecture

City/Urban, Community and Regional Planning

Environmental Design/Architecture

Interior Architecture

Landscape Architecture

Real Estate Development

Area, Ethnic, Cultural, Gender, and Group Studies

American/United States Studies/Civilization African-American/Black Studies Women's Studies

Biological and Biomedical Sciences

Biology/Biological Sciences, General

Biomedical Sciences, General

Molecular Biology

Molecular Biochemistry

Cell/Cellular Biology and Histology

Microbiology, General

Medical Microbiology and Bacteriology

Zoology/Animal Biology

Human/Medical Genetics

Molecular Physiology

Exercise Physiology

Vision Science/Physiological Optics

Pathology/Experimental Pathology

Environmental Toxicology

Pharmacology and Toxicology

Biostatistics

Biotechnology

Marine Biology and Biological Oceanography

Conservation Biology

Epidemiology

Neuroscience

Neurobiology and Anatomy

Biological and Biomedical Sciences, Other

Business, Management, Marketing, and Related Support Services

Business/Commerce, General

Business Administration and Management, General

Purchasing, Procurement/Acquisitions and Contracts Management

Logistics, Materials, and Supply Chain Management

Office Management and Supervision

Project Management

Organizational Leadership

Business Administration, Management and Operations, Other

Accounting

Accounting Technology/Technician and Bookkeeping

General Office Occupations and Clerical Services

Business/Managerial Economics

Finance, General

Hospitality Administration/Management, General

Restaurant/Food Services Management

Human Resources Management/Personnel Administration, General

International Business/Trade/Commerce

Management Information Systems, General

Information Resources Management

Business, Management, Marketing, and Related Support Services, Continued

Management Science

Marketing/Marketing Management, General

Marketing, Other

Real Estate

Taxation

Sales, Distribution, and Marketing Operations, General

Business, Management, Marketing, and Related Support Services, Other

Communication, Journalism, and Related Programs

Communication, General

Speech Communication and Rhetoric

Mass Communication/Media Studies

Communication and Media Studies, Other

Journalism

Radio and Television

Public Relations/Image Management

Advertising

Communication, Journalism, and Related Programs, Other

Communications Technologies/ Technicians and Support Services

Radio and Television Broadcasting Technology/Technician

Animation, Interactive Technology, Video Graphics and Special Effects

Graphic and Printing Equipment Operator, General Production

Graphic Communications, Other

Computer and Information Sciences and Support Services

Computer and Information Sciences, General

Information Technology

Information Science/Studies

Computer Science

Computer Graphics

Modeling, Virtual Environments and Simulation

Computer and Information Systems Security/Information Assurance

Computer/Information Technology Services Administration and Management, Other

Construction Trades

Mason/Masonry

Carpentry/Carpenter

Electrician

Building/Construction Finishing, Management, and Inspection, Other

Plumbing Technology/Plumber

Education

Education, General

Educational Leadership and Administration, General

Educational, Instructional, and Curriculum Supervision

Higher Education/Higher Education Administration

Elementary and Middle School Administration/Principalship

Secondary School Administration/Principalship

Educational/Instructional Technology

Educational Statistics and Research Methods

Special Education and Teaching, General

Education/Teaching of Individuals with Speech or Language Impairments

Special Education and Teaching, Other

Counselor Education/School Counseling and Guidance Services

Adult and Continuing Education and Teaching

Elementary Education and Teaching

Secondary Education and Teaching

Teacher Education, Multiple Levels

Kindergarten/Preschool Education and Teaching

Early Childhood Education and Teaching

Art Teacher Education

English/Language Arts Teacher Education

Foreign Language Teacher Education

Health Teacher Education

Mathematics Teacher Education

Music Teacher Education

Physical Education Teaching and Coaching

Reading Teacher Education

Science Teacher Education/General Science Teacher Education

Social Science Teacher Education

Technical Teacher Education

Trade and Industrial Teacher Education

School Librarian/School Library Media Specialist

Teaching English as a Second or Foreign Language/ESL Language Instructor

Education, Other

Engineering

Engineering, General

Aerospace, Aeronautical and Astronautical/Space Engineering

Architectural Engineering

Bioengineering and Biomedical Engineering

Chemical Engineering

Civil Engineering, General

Computer Engineering, General

Electrical and Electronics Engineering

Engineering Mechanics

Engineering, Continued

Environmental/Environmental Health Engineering

Materials Engineering

Mechanical Engineering

Metallurgical Engineering

Systems Engineering

Textile Sciences and Engineering

Polymer/Plastics Engineering

Construction Engineering

Industrial Engineering

Biological/Biosystems Engineering

Engineering, Other

Engineering Technologies and Engineering-Related Fields

Engineering Technology, General

Civil Engineering Technology/Technician

Electrical, Electronic and Communications Engineering Technology/Technician

Electrical and Electronic Engineering Technologies/Technicians, Other

Biomedical Technology/Technician

Instrumentation Technology/Technician

Heating, Ventilation, Air Conditioning and Refrigeration Engineering

Technology/Technician

Energy Management and Systems Technology/Technician

Water Quality and Wastewater Treatment Management and Recycling

Technology/Technician

Environmental Engineering Technology/Environmental Technology

Industrial Technology/Technician

Manufacturing Engineering Technology/Technician

Industrial Production Technologies/Technicians, Other

Occupational Safety and Health Technology/Technician

Aeronautical/Aerospace Engineering Technology/Technician

Automotive Engineering Technology/Technician

Mechanical Engineering Related Technologies/Technicians, Other

Construction Engineering Technology/Technician

Surveying Technology/Surveying

Computer Technology/Computer Systems Technology

Drafting and Design Technology/Technician, General

Engineering Technologies and Engineering-Related Fields, Other

English Language and Literature/Letters

English Language and Literature, General

Creative Writing

Professional, Technical, Business, and Scientific Writing

Rhetoric and Composition

Family and Consumer Sciences/ Human Sciences

Family and Consumer Sciences/Human Sciences, General

Family Resource Management Studies, General

Foodservice Systems Administration/Management

Foods, Nutrition, and Related Services, Other

Home Furnishings and Equipment Installers

Housing and Human Environments, Other

Human Development and Family Studies, General

Family Systems

Child Care and Support Services Management

Human Development, Family Studies, and Related Services, Other

Apparel and Textiles, General

Apparel and Textile Manufacture

Apparel and Textile Marketing Management

Family and Consumer Sciences/Human Sciences, Other

Foreign Languages, Literatures, and Linguistics

Foreign Languages and Literatures, General

German Language and Literature

Romance Languages, Literatures, and Linguistics, General

French Language and Literature

Spanish Language and Literature

Sign Language Interpretation and Translation

Health Professions and Related Programs

Health and Wellness, General

Communication Sciences and Disorders, General

Audiology/Audiologist

Speech-Language Pathology/Pathologist

Audiology/Audiologist and Speech-Language Pathology/Pathologist

Communication Disorders Sciences and Services, Other

Dentistry

Dental Clinical Sciences, General

Dental Assisting/Assistant

Dental Hygiene/Hygienist

Health/Health Care Administration/Management

Hospital and Health Care Facilities Administration/Management

Health Information/Medical Records Administration/Administrator

Health Information/Medical Records Technology/Technician

Medical Transcription/Transcriptionist

Health and Medical Administrative Services, Other

Medical/Clinical Assistant

Occupational Therapist Assistant

Pharmacy Technician/Assistant

Physical Therapy Technician/Assistant

Health Professions and Related Programs, Continued

Veterinary/Animal Health Technology/Technician and Veterinary Assistant

Respiratory Therapy Technician/Assistant

Electroneurodiagnostic/Electroencephalographic Technology/Technologist

Emergency Medical Technology/Technician (EMT Paramedic)

Nuclear Medical Technology/Technologist

Medical Radiologic Technology/Science - Radiation Therapist

Respiratory Care Therapy/Therapist

Surgical Technology/Technologist

Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

Radiologic Technology/Science - Radiographer

Physician Assistant

Athletic Training/Trainer

Allied Health Diagnostic, Intervention, and Treatment Professions, Other

Cytotechnology/Cytotechnologist

Clinical/Medical Laboratory Technician

Clinical Laboratory Science/Medical Technology/Technologist

Clinical/Medical Laboratory Science and Allied Professions, Other

Health/Medical Preparatory Programs, Other

Medicine

Substance Abuse/Addiction Counseling

Mental Health Counseling/Counselor

Genetic Counseling/Counselor

Optometry

Pharmacy

Pharmaceutics and Drug Design

Public Health, General

Environmental Health

Occupational Therapy/Therapist

Orthotist/Prosthetist

Physical Therapy/Therapist

Vocational Rehabilitation Counseling/Counselor

Rehabilitation and Therapeutic Professions, Other

Veterinary Medicine

Veterinary Sciences/Veterinary Clinical Sciences, General

Medical Informatics

Dietetics/Dietitian

Clinical Nutrition/Nutritionist

Massage Therapy/Therapeutic Massage

Registered Nursing/Registered Nurse

Nursing Administration

Nurse Anesthetist

Family Practice Nurse/Nursing

Nursing Science

Public Health/Community Nurse/Nursing

Health Professions and Related Programs, Continued

Nursing Education

Nursing Practice

Licensed Practical/Vocational Nurse Training

Nursing Assistant/Aide and Patient Care Assistant/Aide

Health Professions and Related Clinical Sciences, Other

History

History, General

Public/Applied History

Homeland Security, Law Enforcement, Firefighting and Related Services (Sometimes listed as Protective Services)

Criminal Justice/Law Enforcement Administration

Criminal Justice/Safety Studies

Forensic Science and Technology

Criminal Justice/Police Science

Criminalistics and Criminal Science

Corrections and Criminal Justice, Other

Fire Prevention and Safety Technology/Technician

Fire Services Administration

Homeland Security, Law Enforcement, Firefighting and Related Protective Services, Other

Legal Professions and Studies

Law

Legal Research and Advanced Professional Studies, Other

Legal Assistant/Paralegal

Court Reporting/Court Reporter

Liberal Arts and Sciences, General Studies, And Humanities

Liberal Arts and Sciences/Liberal Studies

General Studies

Liberal Arts and Sciences, General Studies and Humanities, Other

Library Science

Library and Information Science

Mathematics and Statistics

Mathematics, General

Applied Mathematics, General

Statistics, General

Mathematical Statistics and Probability

Mathematics and Statistics

Mechanic and Repair Technologies/ Technicians

Mechanics and Repairers, General

Industrial Electronics Technology/Technician

Heating, Air Conditioning, Ventilation and Refrigeration Maintenance

Technology/Technician

Industrial Mechanics and Maintenance Technology

Watchmaking and Jewelrymaking

Vehicle Maintenance and Repair Technologies, General

Autobody/Collision and Repair Technology/Technician

Automobile/Automotive Mechanics Technology/Technician

Diesel Mechanics Technology/Technician

Small Engine Mechanics and Repair Technology/Technician

Airframe Mechanics and Aircraft Maintenance Technology/Technician

Aircraft Powerplant Technology/Technician

Avionics Maintenance Technology/Technician

Military Technologies, and Applied Sciences

Military Applied Sciences, Other

Munitions Systems/Ordinance Technology

Multi/Interdisciplinary Studies

Multi-/Interdisciplinary Studies, General

Biological and Physical Sciences

Systems Science and Theory

Gerontology

Science, Technology and Society

Natural Sciences

Nutrition Sciences

International/Global Studies

Multi-/Interdisciplinary Studies, Other

Natural Resources and Conservation

Natural Resources/Conservation, General

Environmental Science

Natural Resources Management and Policy

Water, Wetlands, and Marine Resources Management

Forest Sciences and Biology

Forest Technology/Technician

Forestry, Other

Wildlife, Fish and Wildlands Science and Management

Parks, Recreation, Leisure, and Fitness Studies

Parks, Recreation and Leisure Studies

Parks, Recreation and Leisure Facilities Management, General

Health and Physical Education/Fitness, General

Sport and Fitness Administration/Management

Kinesiology and Exercise Science

Physical Fitness Technician

Health and Physical Education/Fitness, Other

Parks, Recreation, Leisure, and Fitness Studies, Other

Personal and Culinary Services

Funeral Service and Mortuary Science, General

Cosmetology/Cosmetologist, General

Barbering/Barber

Aesthetician/Esthetician and Skin Care Specialist

Nail Technician/Specialist and Manicurist

Salon/Beauty Salon Management/Manager

Cosmetology and Related Personal Grooming Arts, Other

Culinary Arts/Chef Training

Culinary Arts and Related Services, Other

Philosophy and Religious Studies

Philosophy & Religion/Religious Studies

Physical Sciences

Physical Sciences

Atmospheric Sciences and Meteorology, General

Meteorology

Chemistry, General

Forensic Chemistry

Geology/Earth Science, General

Physics, General

Physics, Other

Materials Science

Physical Sciences, Other

Precision Production

Upholstery/Upholsterer

Machine Tool Technology/Machinist

Machine Shop Technology/Assistant

Tool and Die Technology/Technician

Welding Technology/Welder

Precision Metal Working, Other

Furniture Design and Manufacturing

Cabinetmaking and Millwork

Psychology

Psychology, General

Experimental Psychology

Research and Experimental Psychology, Other

Clinical Psychology

Community Psychology

Counseling Psychology

School Psychology

Educational Psychology

Health/Medical Psychology

Applied Behavior Analysis

Public Administration and Social Service Professions

Public Administration

Social Work

Youth Services/Administration

Public Administration and Social Service Professions, Other

Science Technologies/Technicians

Nuclear/Nuclear Power Technology/Technician

Physical Science Technologies/Technicians, Other

Social Sciences

Social Sciences, General

Anthropology

Criminology

Economics, General

Geography

Geographic Information Science and Cartography

Geography, Other

International Relations and Affairs

Political Science and Government, General

Sociology

Social Sciences, Other

Transportation and Materials Moving

Airline/Commercial/Professional Pilot and Flight Crew

Truck and Bus Driver/Commercial Vehicle Operator and Instructor

Visual and Performing Arts

Visual and Performing Arts, General

Dance, General

Design and Visual Communications, General

Commercial and Advertising Art

Industrial and Product Design

Interior Design

Design and Applied Arts, Other

Drama and Dramatics/Theatre Arts, General

Art/Art Studies, General

Fine/Studio Arts, General

Art History, Criticism and Conservation

Fine Arts and Art Studies, Other

Music, General

Music History, Literature, and Theory

Music, Other

Arts, Entertainment, and Media Management, General



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