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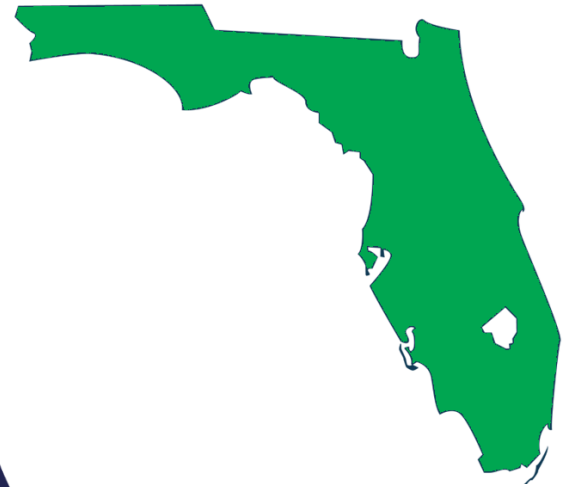
**2024**

# **Economic Security Report**

## **December 2024**

Outcomes for Graduates of Florida  
Public Postsecondary Institutions

Prepared by:  
FloridaCommerce, Bureau of Workforce Statistics and  
Economic Research (WSER)



# About This Report

The Florida Economic Security Report, per section 445.07, Florida Statutes, provides information on employment and earnings outcomes for individuals who graduated from Florida's post-secondary educational institutions. Results presented in this report show the variation in earnings, employment, election to continue education, and proportion of public assistance recipients for graduates of Florida's three public educational systems. The average federal debt acquired by all students in a public postsecondary education institution (not just graduates) in academic year 2020-2021 is also reported. The results show what type of postsecondary credentials students earn and what they study matters.

Information in this report comes from five main data sources:

- Florida Department of Education's Florida Education and Training Placement Information Program (FETPIP)
- Florida Department of Education's Office of Student Financial Assistance
- Florida Department of Commerce Employment Projections
- U.S. Department of Labor's State Wage Interchange System (SWIS)<sup>1</sup>

The data detailed in this report reflect outcomes for 1,096,519 graduates in their first year after graduation for a five-year period from academic years 2016–17 through 2020–21 and 203,463 graduates in their fifth year after graduation (2016-17). All earnings and employment data are provided through the Florida Department of Education (DOE). Although the data represent employment and earning outcomes, the data do not include information about the occupations of graduates and whether they are employed in their field of study.

More information on the methods contained in this report can be found in the Appendix section at the end of the report.

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<sup>1</sup> The SWIS program is a system whereby states can share aggregate employment and wage outcomes with other states. It includes wage data from all 50 US states, Puerto Rico, and the District of Columbia. More information can be found at: [dol.gov/agencies/eta/performance/swis](https://dol.gov/agencies/eta/performance/swis)

Florida’s public postsecondary education system consists of 89 institutions within the following three systems: DTC, FCS, and SUS.

## **District Technical Centers (DTCs)**

DTCs are a system of 48 centers that offer certifications in a variety of career and technical education program areas. Career and adult education programs are designed to meet the needs of students and industry. DTCs represent a significant collaboration and partnership across both private and public sectors throughout Florida with the goal of improving Florida's workforce.

Learn more about Career and Adult Education at the Florida Department of Education: [Career & Adult Education \(fldoe.org\)](https://fldoe.org/career-adult-education)

## **Florida College System (FCS)**

Ranked No. 1 in higher education by U.S. News and World Report for eight consecutive years, the FCS is the primary access point to higher education for Floridians, accounting for nearly half of all graduates in the five-year period. The FCS consists of 28 public community colleges and state colleges, offering a mix of two-year and four-year programs and is designed to respond quickly and efficiently to meet the demand of employers by aligning certificate and degree programs with regional workforce needs.

Learn more about the Florida College System at the Florida Department of Education: [Florida College System \(fldoe.org\)](https://fldoe.org/florida-college-system)

## **State University System of Florida (SUS)**

Ranked No. 1 in higher education by U.S. News and World Report for eight consecutive years, the 12 public universities comprising the SUS provide rigorous, high-quality education in more than 1,800 programs at the graduate, postgraduate, and professional levels. The statewide system, created in 2002, boasts more than 430,000 students and 60,000 plus faculty and staff with a budget greater than \$16 billion in 2023.

Learn more about SUS institutions at the SUS Board of Governors website: [State University System \(flbog.edu\)](https://flbog.edu)



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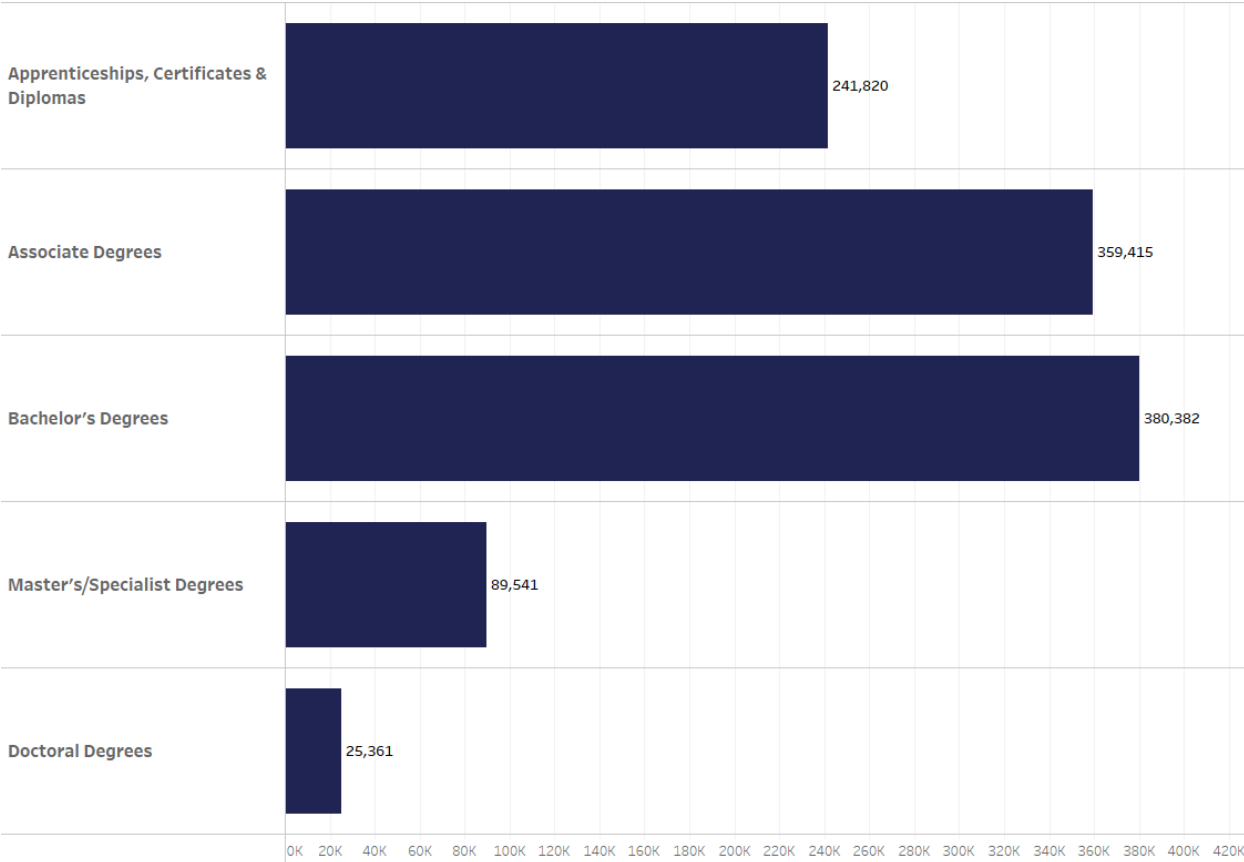
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# Executive Summary

The report aims to document the variation in earnings, employment, election to continue their education, and public assistance among graduates who have earned degrees or certificates from Florida’s public postsecondary education institutions. The results show that economic outcomes are primarily correlated with a student’s credential level.

**Figure 1** below displays the total number of graduates for each credential type reviewed across a five-year period from academic years 2016-17 through 2020-21. Among the nearly 1.1 million awards conferred during the reporting period, nearly 35% were bachelor’s degrees, 33% were associate degrees, 22% were certificates, diplomas, or apprenticeships, 8% were master’s degrees or specialist degrees, and 2% were non-medical doctoral degrees. Doctoral degrees in the law and medical fields accounted for less than 1% of all awards.

**Figure 1. Number of Graduates by Credential**



## Outcomes at a Glance

- During the reporting period, there were more than 380,000 bachelor's degrees awarded at FCS and SUS institutions combined and more than 359,000 associate degrees at FCS institutions. Among those graduates, more than 285,000 were Associate in Arts degrees. Master's degrees totaled more than 88,000 graduates, and there were more than 14,000 doctoral degrees, excluding law and medical fields. College credit and career certificates combined had more than 175,000 graduates in DTCs.
- Broken down by county, institutions located in Orange County accounted for more than 155,000 awards during the reporting period. Miami-Dade and Hillsborough counties each had more than 100,000 graduates.
- Undergraduate job placement ranged from 67% to 93% of graduates found in employment data a year after graduation. After five years, the range narrowed to between 74% and 85%.
- Among the award programs designed to further education, 69% of graduates of Associate in Arts degrees, 57% of college credit certificate recipients, and 47% of applied technology diploma graduates were found in education data a year after completion. Five years after graduation, these numbers fell to 16%, 14%, and 17%, respectively.
- Median earnings a year after completion ranged from \$31,000 to slightly more than \$51,000 for undergraduate programs, and \$56,000 to more than \$75,000 for master's and doctoral degrees. Some specific medical degrees, first professional, and other doctoral programs exceeded \$100,000.
- In popularity, business administration and management programs accounted for more than 61,000 total graduates during the reporting period. Registered nursing totaled more than 51,000. Psychology programs total more than 28,000 recipients. Emergency Medical Technicians and Emergency Medical Responders totaled more than 20,000 awards, and biology programs were more than 17,000 graduates.

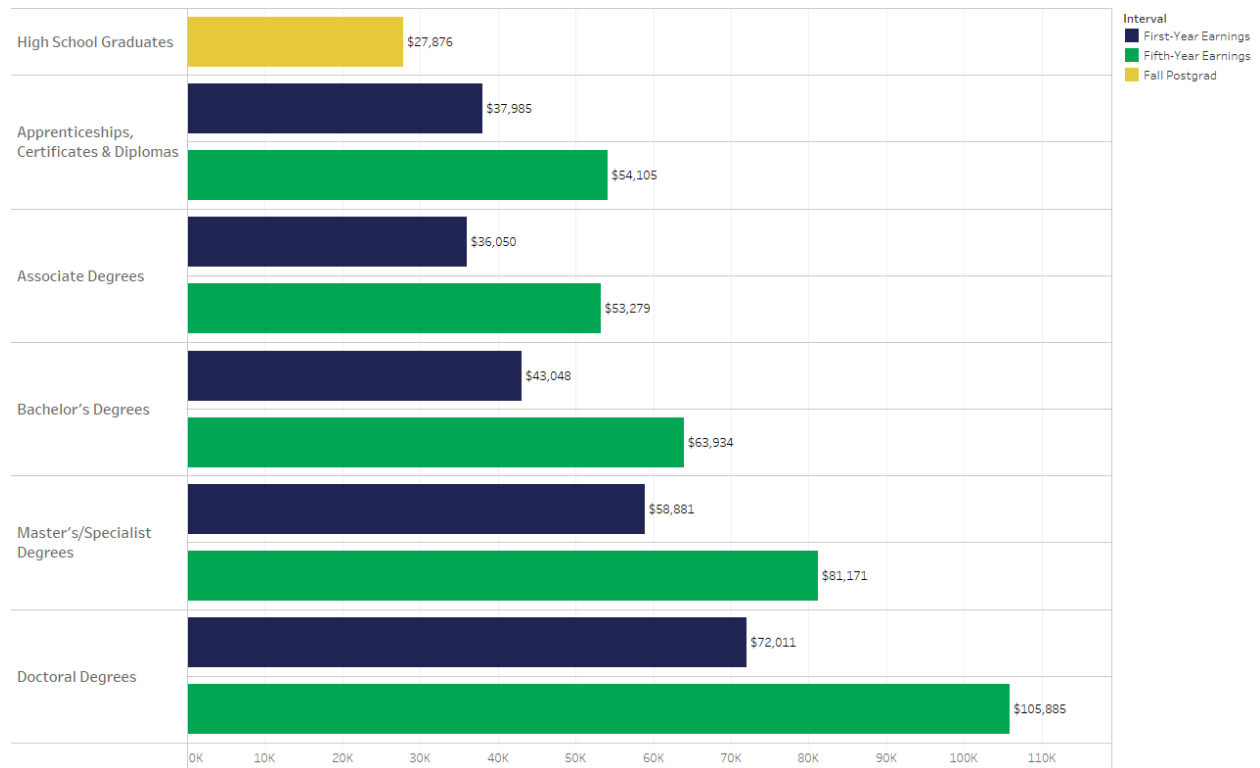
## Experience Matters

**Figure 2** displays the median first- and fifth-year salaries for all credentials awarded by Florida's public postsecondary education system. The importance of experience can be seen within the data. The outcomes of all five major credential groups showed median fifth-year earnings that were 38% to 48% higher than first-year earnings. Doctoral degrees demonstrate a higher earning potential, with median fifth-year earnings totaling



more than 47% higher than first-year earnings and 66% higher than fifth-year earnings of bachelor's programs.

**Figure 2. Median First- and Fifth-Year Earnings by Credential (for All Institutions)**



## Progress

This report compares outcomes over five academic years (2016-17 through 2020-21). However, we can also compare outcomes across previous periods to mark progress. The total number of credentials awarded increased across all credential categories compared to last year's reporting period. This progress can be seen in **Figure 3** below.

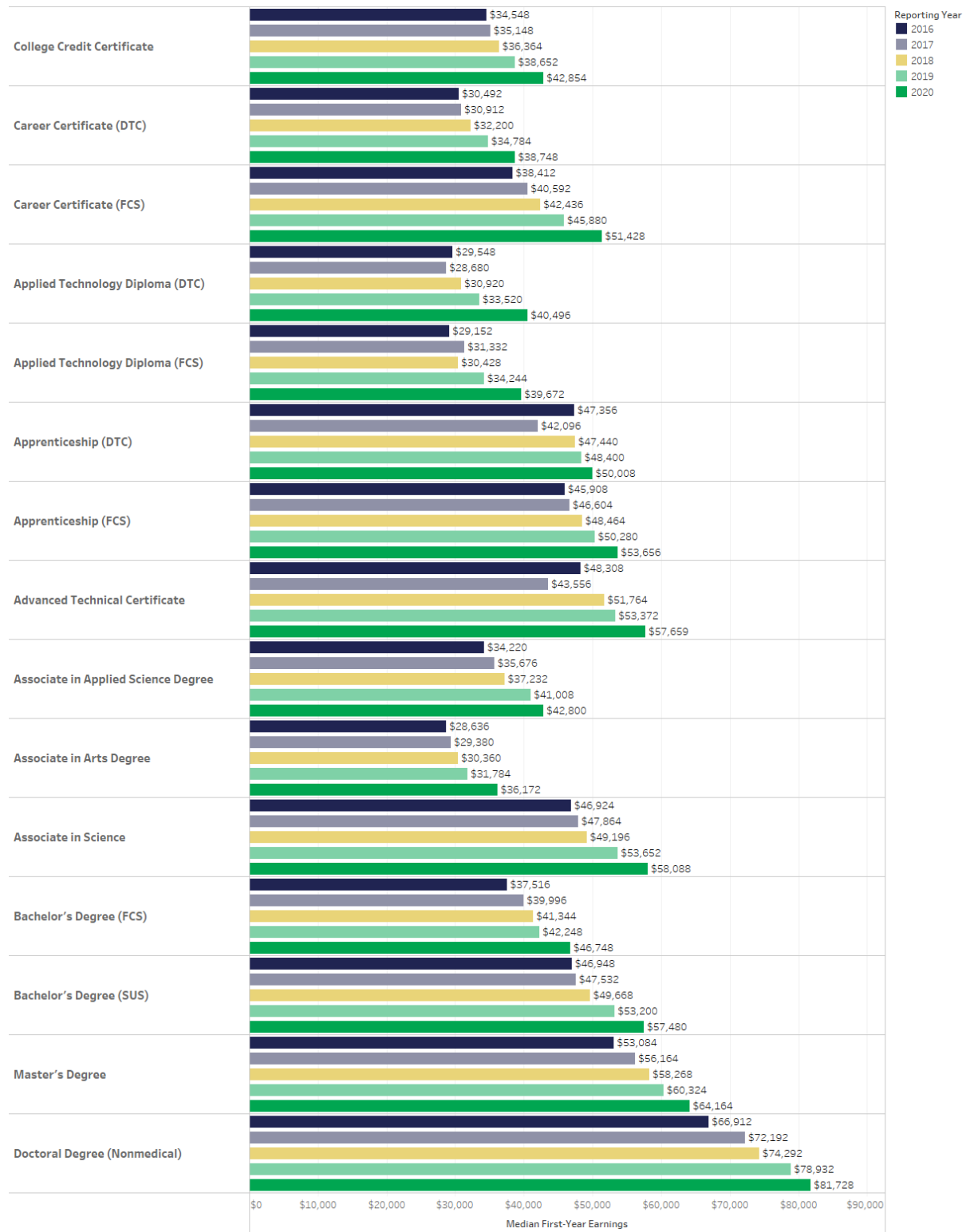
- There were 241,820 certificates, diplomas, and apprenticeships awarded between 2016- and 2021, an increase of 5% from the total number of credentials awarded (230,361) in the previous economic security reporting period (2015-16 through 2019-2020).
- Median first-year earnings in 2020 increased between 3.3% for apprenticeships at DTCs and 20.8% for advanced technology diplomas at DTCs compared to 2019. All diplomas and certificate types increased at least 10% from 2019.
- There were 359,415 associate degrees awarded in this five-year period, an increase of 0.9% from the previous cycle (356,092).

- Median first-year earnings of associate degrees increased between 4.3% for associate in applied science degrees to 13.8% for associate in arts degrees in 2020 compared to 2019.
- There were 380,382 bachelor's degrees awarded from 2016-17 through 2020-21, an increase of 3.6% from the previous reporting period (367,184).
- Median first-year earnings for bachelor's degrees at FCS and SUS institutions increased between 8.0% and 10.7% from 2019 to 2020.
- There were 88,265 master's degrees awarded, an increase of 3.5% from the previous reporting period (85,290).
- Median first-year earnings for master's degrees increased 6.3% from 2019 to 2020.
- There were 14,053 nonmedical doctoral degrees conferred this period increased 2.2% from the previous reporting period (13,753).
- Median first-year earnings of nonmedical doctoral degrees increased 3.5% from 2019 to 2020.
- Though not contained in **Figure 3** below, combined medical and law doctoral degrees awarded this period (10,753) decreased 5.5% from the previous report (11,831).

**Figure 3. Progress in Outcomes by Credential Type from Previous Report**

PROGRESS IN OUTCOMES BY CREDENTIAL TYPE FROM PREVIOUS REPORT						
Credential Type	Awards Conferred			Median First-Year Earnings		
	2015-16 through 2019-20	2016-17 through 2020-21	% Change	2015-16 through 2019-20	2016-17 through 2020-21	% Change
Career Certificates (DTCs)	75,361	79,427	5.4%	\$ 31,840	\$ 33,556	5.4%
Career Certificates (FCS)	41,909	41,025	-2.1%	\$ 40,548	\$ 43,312	6.8%
College Credit Certificates	89,976	95,825	6.5%	\$ 35,840	\$ 37,840	5.6%
Applied Technology Diplomas (DTCs)	2,737	3,281	19.9%	\$ 30,040	\$ 32,660	8.7%
Applied Technology Diplomas (FCS)	6,080	5,524	-9.1%	\$ 30,748	\$ 32,598	6.0%
Apprenticeships (DTCs)	11,755	13,943	18.6%	\$ 45,536	\$ 46,909	3.0%
Apprenticeships (FCS)	837	830	-0.8%	\$ 47,112	\$ 48,754	3.5%
Advanced Technical Certificates	1,706	1,965	15.2%	\$ 48,432	\$ 51,018	5.3%
Associate in Applied Science Degrees	874	597	-31.7%	\$ 35,840	\$ 37,454	4.5%
Associate in Science Degrees	71,882	73,473	2.2%	\$ 48,576	\$ 50,736	4.4%
Associate in Arts Degrees	283,336	285,345	0.7%	\$ 29,876	\$ 31,400	5.1%
Bachelor's Degrees (FCS)	42,260	45,911	8.6%	\$ 48,696	\$ 51,208	5.2%
Bachelor's Degrees (SUS)	324,924	334,471	2.9%	\$ 39,920	\$ 41,764	4.6%
Master's Degrees	85,290	88,265	3.5%	\$ 56,340	\$ 58,860	4.5%
Doctoral Degrees (nonmedical)	13,753	14,053	2.2%	\$ 73,068	\$ 75,572	3.4%

**Figure 4. Median First-Year Earnings by Degree Type and Single Year (2016-2020)**



## Student Debt

FCS and SUS institutions in Florida self-report student loan debt data to the Office of Student Financial Assistance in Florida's Department of Education. A total of \$1.56 billion was granted across 255,569 federal student loans, including all students who received Stafford, Perkins, Graduate PLUS, Parent PLUS, and TEACH program loans, was dispersed to FCS and SUS institutions in 2020-21. This excludes Chipola College and North Florida College where data were not reported.

The statewide average during the 2020-21 academic year was \$6,110 per loanee. This amount is averaged across all students that received federal student loans and does not include private loans or other debt issued by non-federal government sources.

## Public Assistance

During the reporting period, 84,573 (7.7%) students received public assistance from either the Temporary Assistance for Needy Families (TANF) program or the Supplemental Nutrition Assistance Program (SNAP) one year after graduation.

## Labor Market

As Florida's population continues to increase, so will the job supply. A healthy job market will assist graduates of Florida institutions in their efforts to begin careers of their choosing. The industries expected to gain the most jobs through 2031 are Professional and Technical Services (+116,550 jobs), Food Services and Drinking Places (+100,194 jobs), and Ambulatory and Health Care Services (+98,164 jobs). Collectively, the top-10 industries in job growth are anticipated to add more than half a million new jobs through 2031. The fastest-growing industry is projected to be Other Information Services (+22.5% growth).

The occupations expected to experience the largest job growth through 2031 are Software Developers (+18,720), General and Operations Managers (+17,951), and Registered Nurses (+16,442).<sup>2</sup> Nurse Practitioners (+46.8% growth) is the occupation projected to be fastest growing through 2031.

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<sup>2</sup> Excludes occupations that require only a high school diploma or GED.

# Certificates, Diplomas, and Apprenticeships

Career and adult education programs are designed to meet the needs of students and business/industry, and its mission is to provide educational opportunities and training necessary to prepare students to meet the needs and standards of today's competitive workplace. During the five-year period covered within this report, more than 240,000 students completed a certificate, a diploma, or an apprenticeship at one or more of Florida's DTC or FCS institutions (22% of all certifications/degrees awarded in Florida). The following subsections present a summary of each.

**Certificate programs** are available in many specialties for students who want to spend fewer than two years in career preparation. Two types of certificate programs are offered at Florida postsecondary institutions:

**Career certificate programs** are a series of vocational courses that prepare students for entry-level employment in specific career fields. The programs vary in length from 40 credit hours to more than 1,500 clock hours. Both FCS and DTC institutions offer these certificate programs as non-college credit. Examples of career certificates include correctional probation officers, cosmetologists, culinary operators, firefighters, and practical nurses. Career certificates also can be referred to as technical certificates.

**College credit certificate programs** are a series of postsecondary vocational courses that prepare students for entry-level employment in specific career fields or for career advancement. These are offered through institutions within the FCS. Generally, these certificates can be completed in one year or less and must be part of an AS or AAS degree program. Examples include information technology technician, office specialist, computer programmer, and educational assistant. College credit certificates also may be called postsecondary vocational certificates.

**Applied Technology Diploma** | The applied technology diploma is a course of study that is part of an AS or AAS degree program. The course of study is less than 60 credit hours and is designed to lead to employment in a specific occupation. Examples include dental assistant and emergency medical technician. An applied technology diploma may consist of career and technical education credit (clock hours) or college credit. When a student is seeking an applied technology diploma at a DTC or as a clock-hour program at a college, the clock hours are converted to semester hours when the student enters the AS or AAS degree program.

**Apprenticeship** | An apprenticeship is a combination of on-the-job training and related classroom instruction in which students learn the practical and theoretical aspects of a highly skilled occupation. Programs are sponsored by apprenticeship organizations in partnership with DTC and FCS institutions, although the majority are through DTCs. It should be noted that students are employed as part of their apprenticeship.

## Certificate Outcomes

Graduates of certificate programs, on average, had higher first-year earnings than graduates with AA degrees. The median first-year earnings of graduates with AA degrees (\$31,400) were lower than those of graduates with career certificates (\$37,121) or college credit certificates (\$37,840). However, graduates of certificate courses, on average, had lower median first-year earnings than graduates with AS degrees (\$50,736). Together, Florida's FCS and DTC institutions awarded more than 216,000 career and college credit certificates for the academic years of 2016-17 through 2020-21.

### Career Certificate Programs

As shown in **Table 1**, 84% of career certificate graduates from FCS institutions were found in employment data one year post-completion with competitive median first-year earnings (\$43,312). Also noted in Table 1, the statewide median first-year earnings of graduates with career certificates from DTCs were \$33,556, with 75% of graduates found in employment data one year after completion.

**Table 1. Employment Outcomes of Graduates with Career Certificates**

Credential Type	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Career Certificate (DTC)	79,427	\$33,556	75%	\$48,010	74%
Career Certificate (FCS)	41,025	\$43,312	84%	\$59,840	81%
College Credit Certificate (FCS)	95,825	\$37,840	74%	\$54,442	78%

### College Credit Certificates

Also shown previously in **Table 1**, the median first-year earnings of college credit certificates were \$37,840 during the reporting period, with 74% of recipients found within employment data a year after completion. Those students who received college credit certificates had comparable earnings to those who received career certificates. Students who completed college credit certificates were found in employment data less frequently than students who earned career certificates.

## Applied Technology Diploma Outcomes

As shown in **Table 2**, more than 8,800 applied technology diplomas were awarded in Florida in DTC and FCS institutions combined during the reporting period. Median first-year earnings were over \$32,000 with more than 82% of all graduates found within earnings data a year after completion.

**Table 2. Employment Outcomes of Graduates with Applied Technology Diplomas**

Credential Type	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Applied Technology Diplomas (DTC)	3,281	\$32,660	83%	\$52,532	83%
Applied Technology Diplomas (FCS)	5,524	\$32,598	82%	\$55,308	85%

## Apprenticeship Outcomes

As shown in **Table 3** below, more than 94% of apprenticeships are offered through DTCs with over 14,700 total apprenticeships awarded. When combined, the median first-year earnings of all graduates totaled slightly more than \$47,000, with more than 80% found within employment data a year after completion. Earnings increased to more than \$62,000 five years after completion.

**Table 3. Employment Outcomes of Graduates with Apprenticeships**

Credential Type	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Apprenticeship (DTC)	13,943	\$46,909	81%	\$62,141	80%
Apprenticeship (FCS)	830	\$48,754	93%	\$64,668	85%

## What Students Study Matters

**Table 4** presents student outcomes for the most popular career certificate programs offered by DTCs. Median first-year earnings ranged from approximately \$26,000 (Cosmetology) to \$48,000 (Law Enforcement Officer) for programs with the most graduates (**Table 4A**). The top-10 median first-year earnings ranged from nearly \$48,000 (Turbine Generator Maintenance, Inspection and Repair) to more than \$56,000 (Paramedic) for programs offering career certificates at DTCs.

**Table 4. First- and Fifth-Year Employment Outcomes for Graduates of Ten Most Popular Career Certificates Awarded by District Technical Centers**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Practical Nursing	6,528	\$38,884	85%	-- <sup>1</sup>	-- <sup>1</sup>
Cosmetology	4,791	\$26,090	66%	\$36,132	57%
Welding Technology	3,376	\$35,678	74%	\$51,688	75%
Florida Law Enforcement Academy	2,328	\$48,006	90%	\$62,421	85%
Professional Culinary Arts & Hospitality	2,268	\$26,756	72%	\$34,962	75%
Medical Assisting	2,238	\$28,944	80%	\$37,664	81%
Electricity	2,177	\$32,804	75%	\$46,080	77%
Automotive Service Technology	2,054	\$30,256	78%	\$46,920	78%
Commercial Vehicle Driving	2,004	\$44,800	71%	\$67,436	58%
Phlebotomy	1,973	\$28,658	75%	\$40,565	68%

<sup>1</sup> Data for fifth-year earnings and employment is unavailable. Some data are suppressed for privacy reasons.

As shown in **Table 5**, the differences in first-year earnings varied greatly between the popular certificate programs at FCS institutions. Median first-year earnings of the most popular career certificates offered in the Florida College System varied from more than \$25,600 (Cosmetology) to more than \$52,000 (Florida Law Enforcement Officers). The range for top programs based on first-year earnings was more than \$53,000 (Paramedic) to more than \$86,600 (Advanced Automotive Service Technology).



**Table 5. First- and Fifth-Year Employment Outcomes for Graduates of Ten Most Popular Career Certificates Awarded by the Florida College System (FCS)**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Florida Law Enforcement Academy	9,481	\$52,040	91%	\$66,692	88%
Correctional Officer	3,404	\$47,180	96%	\$59,172	88%
Firefighter	3,171	\$43,336	90%	\$68,808	93%
Cosmetology	1,673	\$25,646	69%	\$36,916	62%
Insurance Claims Adjuster	1,406	\$46,056	76%	\$58,494	76%
Insurance Customer Service Representative	1,331	\$32,358	82%	\$44,602	73%
Welding Technology	1,175	\$36,900	79%	\$54,970	81%
Facials Specialty	1,147	\$33,754	66%	\$37,536	60%
Phlebotomy	1,138	\$28,360	78%	\$43,283	74%
Practical Nursing	957	\$37,712	89%	\$60,304	90%

**Table 6** identifies the median first-year earnings outcomes of graduates with the most popular college credit certificates. Earnings among the most popular college credit certificates range from more than \$28,000 (Child Care) to nearly \$43,000 (EMT Paramedic). Among the highest-earning college credit certificates, the range was more than \$50,000 (Funeral Service and Mortuary Science) to nearly \$82,000 (Fire Prevention and Safety Technology).

**Table 6. First- and Fifth-Year Employment Outcomes for Graduates of Ten Most Popular College Credit Certificates Awarded by the Florida College System (FCS)**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Business Administration and Management, General	32,591	\$37,500	72%	\$52,768	75%
Emergency Medical Technology/Technician (EMT Paramedic)	10,809	\$42,872	86%	\$68,840	86%
Accounting Technology/Technician and Bookkeeping	9,653	\$37,670	74%	\$52,848	77%
Entrepreneurship/Entrepreneurial Studies	6,237	\$39,315	73%	\$49,486	74%
Operations Management and Supervision	5,925	\$39,096	73%	\$45,536	78%
Chemical Technology/Technician	3,621	\$41,584	74%	\$69,058	87%
Information Technology	3,291	\$39,728	73%	\$58,276	77%
Network and System Administration/Administrator	3,018	\$42,022	77%	\$60,773	83%
Child Care Provider/Assistant	2,725	\$28,368	73%	\$36,268	73%
Biotechnology	2,545	\$34,320	73%	\$62,052	84%

Applied Technology Diplomas are offered in a dozen programs in both DTCs and FCS institutions. Outcomes for the top five most popular are shown in **Tables 7a and 7b** by educational system. Certificates related to EMT and Dental Assistants were common in both systems, with EMT median first-year earnings ranging between \$32,684 and \$33,212, and dental assistants' median first-year earnings ranging between \$29,260 and \$31,362. Among all applied technology diploma programs, the highest earnings were found with graduates of DTC Paramedic programs (\$58,196) with the lowest median first-year earnings being graduates of DTC Pharmacy Technician programs (\$27,812).

**Table 7. First- and Fifth-Year Employment Outcomes for Graduates of an Applied Technology Diploma**

**A. FCS**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Emergency Medical Technology/Technician (EMT Paramedic)	4,940	\$33,212	82%	\$56,506	85%
Dental Assisting/Assistant	395	\$31,362	81%	\$47,000	80%
Pharmacy Technician/Assistant	131	\$29,808	86%	\$37,664	100%
Health Information/Medical Records Technology/Technician	38	\$28,980	76%	-- <sup>1</sup>	62%
Clinical/Medical Social Work	16	-- <sup>2</sup>	69%	-- <sup>1</sup>	71%

<sup>1</sup> Data for fifth-year earnings is unavailable. Some data are suppressed for privacy reasons.  
<sup>2</sup> Data for first-year earnings is unavailable. Some data are suppressed for privacy reasons.

**B. DTCs**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Emergency Medical Technician - ATD	1,695	\$32,684	82%	\$61,280	85%
Medical Coder/Biller – ATD	522	\$31,120	79%	\$42,104	73%
Dental Assisting Technology and Management - ATD	440	\$29,260	87%	\$37,824	81%
Pharmacy Technician - ATD	211	\$27,812	82%	\$31,125	97%
Paramedic	168	\$58,196	95%	-- <sup>1</sup>	-- <sup>1</sup>

<sup>1</sup> Data for fifth-year earnings and employment is unavailable. Some data are suppressed for privacy reasons.

Only a handful of apprenticeship programs are offered across nine FCS institutions. Outcomes for the five most popular programs are shown in **Table 8**. Apprenticeships in Plumbing Technology/Plumber programs had the highest first-year earnings (\$55,436) among these. Child Care Provider/Assistant program graduates had the lowest first-year earnings (\$24,308).

**Table 8. First- and Fifth-Year Employment Outcomes for Graduates of Apprenticeships Awarded by the Florida College System (FCS)**

Name	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Electrician	482	\$47,822	95%	\$63,192	90%
Plumbing Technology/Plumber	96	\$55,436	97%	\$65,588	82%
Pipefitting/Pipefitter and Sprinkler Fitter	91	\$50,674	96%	\$67,228	94%
Heating, Air Conditioning, Ventilation, and Refrigeration Maintenance Technology/Technician	90	\$51,740	90%	\$65,956	83%
Child Care Provider/Assistant	31	\$24,308	58%	— <sup>1</sup>	30%
<sup>1</sup> Data for fifth-year earnings is unavailable. Some data are suppressed for privacy reasons.					

**Table 9** shows first- and fifth-year employment outcomes for apprenticeship graduates in the most popular programs at DTC institutions. Among the most popular apprenticeship programs, Electric Line Service and Repair had the highest first-year earnings (\$76,806) while Elevator Constructor Mechanic apprenticeships had the highest median first-year earnings among all programs (\$96,844). Graduates of Early Childhood Education had the lowest median first-year earnings (\$24,858).

**Table 9. First- and Fifth-Year Employment Outcomes for Graduates of Ten-Most popular Apprenticeships Awarded by District Technical Centers (DTC)**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Electrician	4,588	\$45,710	83%	\$70,518	89%
Plumbing Technology	1,531	\$50,112	83%	\$68,756	83%
Early Childhood Education	1,514	\$24,858	74%	\$32,094	63%
Air Conditioning, Refrigeration and Heating Technology	1,372	\$49,088	87%	\$65,702	85%
Carpentry	640	\$40,752	71%	\$56,988	93%
Structural Steel Work	524	\$54,112	80%	\$61,196	78%
Firefighter	388	\$61,840	93%	\$69,622	94%
Brick and Block Masonry	379	\$34,816	66%	-- <sup>1</sup>	100%
Electrical Line Service and Repair	370	\$76,806	86%	\$113,798	93%
Pre-Apprenticeship	308	\$34,090	72%	\$51,888	74%

<sup>1</sup> Data for fifth-year earnings is unavailable. Some data are suppressed for privacy reasons.

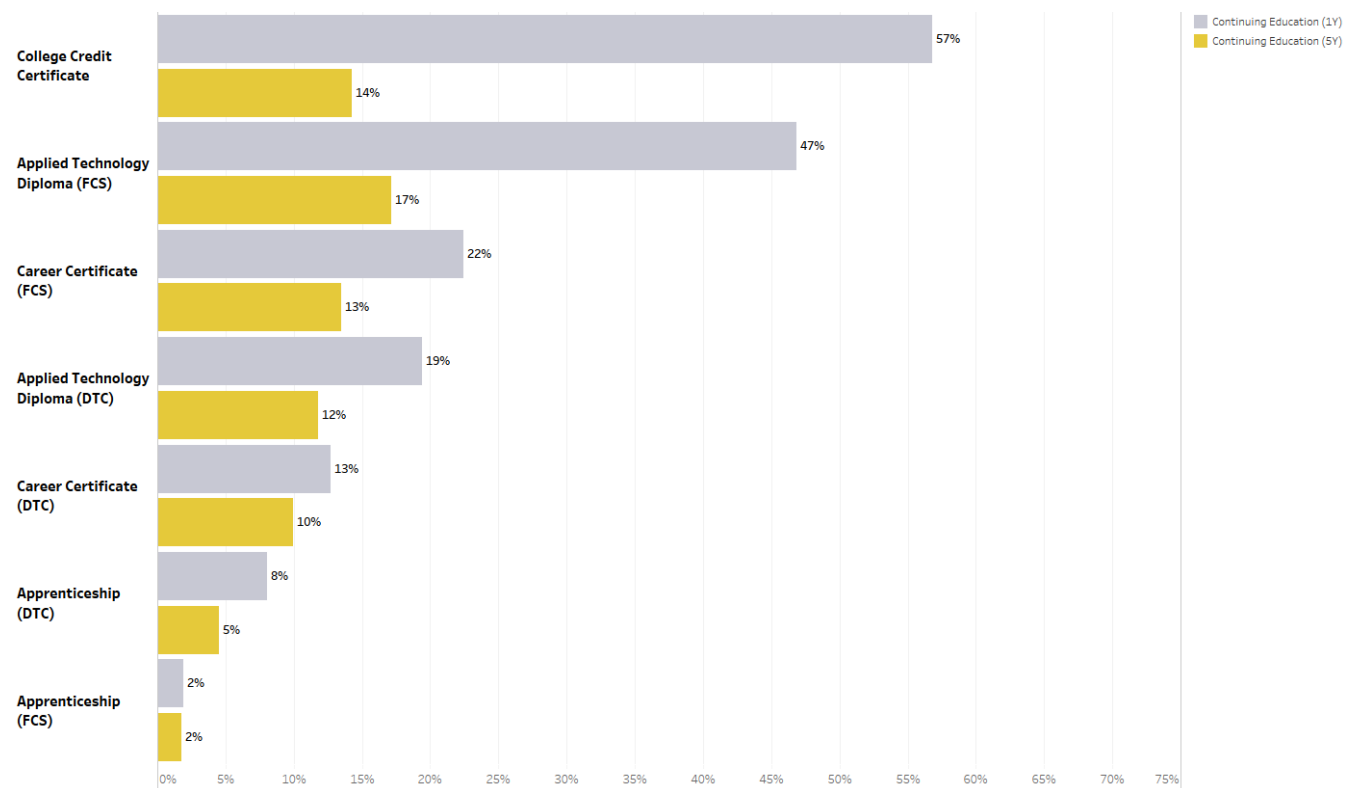
## Certificates/Diplomas/Apprenticeships Students Continuing Their Education

**Figure 4** shows the percentage of graduates found in the education enrollment records one and five years after completion in apprenticeship, certificate, or diploma programs who were enrolled in some form of subsequent education.

At DTCs, recipients of the applied technology diploma were most frequently found continuing education from one year after graduation (19%). Thirteen percent of career certificate recipients and 8% of apprenticeships were continuing education a year after receiving their awards.

In the Florida College System, recipients of the college credit certificates were most likely to be found continuing education after a year (57%) with 47% of applied technology diploma recipients pursuing education after a year and 22% of career certificate recipients.

**Figure 4. Percentage of Graduates Continuing Their Education After 1 and 5 Years**



# Associate Degrees

The **associate degree** is a two-year college credit degree/program. Within Florida's public educational system, there are four different types of associate degrees or certificates, depending on student career interest. Over the five-year period covered within this report (academic years 2016-17 through 2020-21), more than 360,000 students were awarded an associate degree or advanced technical certificate from one or more of these institutions, accounting for one third of all graduates. Below is a summary of each type of associate degree/certificate.

**Associate in Arts** | The AA degree is a two-year liberal arts degree designed to prepare students who are planning to earn a bachelor's degree. It serves as a basis for admission to a bachelor's degree program.

**Associate in Science** | The AS degree is a two-year technical degree designed to prepare students who are planning to enter a specific occupation. It serves as a basis for admission to a related bachelor's degree program.

**Associate in Applied Science** | The AAS degree is a two-year technical degree designed to train students for direct entry into a specialized occupation in the workplace. AAS degrees are designed for students who do not want to pursue education beyond an associate level degree.

**Advanced Technical Certificate** | ATC are programs of instruction that are less than 45 credit hours of college-level courses. They are awarded to students who have already received an AS or AAS degree and are seeking an advanced specialized planning program of study to supplement their associate degree.

As **Figure 1** shows, the associate degree is the second most awarded postsecondary credential in Florida (approximately 33% of all certificates/degrees awarded). **Table 10** shows that among associate degrees, AA degrees are the most common. The AA degree is designed as a pathway to a bachelor's degree. Compared with the AA degree, fewer students completed career- and technical-oriented programs of study. For example, 285,345 AA degrees were awarded during the study period, compared with 73,473 AS degrees, 1,965 ATC degrees, and 597 AAS graduates across the five cohort years.

**Table 10. Employment Outcomes for Graduates with Associate Degrees and Advanced Technical Certificates**

Degree	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
AA Degree	285,345	\$31,400	67%	\$49,689	77%
AS Degree	73,473	\$50,736	83%	\$66,160	83%
ATC	1,965	\$51,018	84%	\$65,336	84%
AAS Degree	597	\$37,454	80%	\$52,124	78%

### Associate in Arts Degree Outcomes

Among the types of associate degrees, the most common in Florida is the AA with 285,345 degrees awarded during the five-year study period. As shown in **Table 10**, the median first-year earnings of all graduates with AA degrees were \$31,400.

### Associate in Science Degree Outcomes

After the AA degree, the next most common associate degree awarded in Florida is the AS degree. More than 73,400 AS degrees were awarded during the five-year study period. The median first-year earnings for AS degrees (\$50,736) were the highest out of all associate degree types.

### Associate in Applied Science Degree Outcomes

A total of 597 students in Florida earned AAS degrees from academic years 2016-17 through 2020-21. The AAS degree focuses on training students for direct entry into a specialized occupation and are designed for students who choose not to pursue education beyond an associate level degree.

The median statewide first-year earnings of graduates with AAS degrees were \$ 37,454 which is approximately \$6,000 higher than those of graduates with AA degrees (\$31,400) but more than \$13,000 lower than those with AS degrees (\$50,736).

### Advanced Technical Certificates Outcomes

Those receiving ATCs achieved the highest median first-year earnings during the reporting period among this group of credentials. Earnings for ATCs were narrowly higher than AS degrees (\$51,018 versus \$50,736). ATCs are generally designed for individuals who have already completed a two-year AS or AAS degree and are seeking



advanced, specialized preparation in a particular career field to supplement their degree. ATCs are offered at 14 of the 28 FCS institutions. A total of 597 ATCs were awarded during the reporting period.

## What Students Study Matters

Graduates with AA degrees are classified into a single program of study (liberal arts and sciences/liberal studies<sup>3</sup>). However, AAS and AS degrees are offered in different programs of study. **Table 11** shows the first- and fifth-year outcomes for graduates of the most popular AS degrees. Registered Nursing/Registered Nurse AS graduates outnumber graduates of the second-most popular program (Business Administration and Management) by more than 20,000. Registered Nursing also is one of the highest paying of the common AS degrees, with median first-year earnings of more than \$58,000. The highest earnings among the most popular programs listed in Table 11 were found among graduates of EMT Paramedic programs (\$67,316). There is a wide range of earnings with AS awards, starting with Animation, Interactive Technology, Video Graphics, and Special Effects (\$24,496) on the low end to Physical Assistant awards (\$97,516) on the high end. Furthermore, there is a large range of graduates found within employment data, ranging from 29% one year after completion (Physical Fitness Technician) to 95% (EMT Paramedic).

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<sup>3</sup> This classification and information about all other fields of study used in this report are defined by the U.S. Department of Education's Classification of Instructional Programs (CIP) Code.

**Table 11. First- and Fifth-Year Employment Outcomes for Graduates of Ten-Most Popular AS Degrees**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Registered Nursing/Registered Nurse	24,201	\$58,630	92%	\$81,776	91%
Business Administration and Management, General	3,974	\$39,000	75%	\$52,000	77%
Criminal Justice/Law Enforcement Administration	3,082	\$38,256	80%	\$51,936	80%
Legal Assistant/Paralegal	2,160	\$36,560	79%	\$50,676	76%
Emergency Medical Technology/Technician (EMT Paramedic)	2,103	\$67,316	95%	\$91,912	93%
Medical Radiologic Technology/Science – Radiation Therapist	2,099	\$49,376	93%	\$61,320	89%
Network and System Administration/Administrator	1,929	\$42,656	77%	\$62,628	80%
Information Technology	1,870	\$38,534	74%	\$54,577	80%
Physical Therapy Technician/Assistant	1,710	\$40,688	78%	\$55,364	80%
Computer Programming/Programmer, General	1,683	\$41,640	70%	\$63,944	80%

Employment Outcomes data exist for only nine AAS degree programs, and earnings data is available for only six of those. **Table 12** shows outcomes for the five most popular programs by number of graduates in the reporting period. Median first-year earnings ranged from \$41,348 (Heating, Ventilation, Air Conditioning, and Refrigeration Engineering Technology/Technician) to \$27,580 (Diver, Professional, and Instructor).

**Table 12. First- and Fifth-Year Employment Outcomes for Graduates of the Most Popular AAS Degrees**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Automotive Engineering Technology/Technician	308	\$35,392	83%	\$52,576	80%
Diesel Mechanics Technology/Technician	113	\$40,812	68%	\$45,574	67%
Automobile/Automotive Mechanics Technology/Technician	40	\$41,196	95%	\$59,544	89%
Diver, Professional, and Instructor	31	\$27,580	68%	— <sup>1</sup>	67%
Heating, Ventilation, Air Conditioning, and Refrigeration Engineering Technology/Technician	27	\$41,348	78%	-- <sup>1</sup>	78%

<sup>1</sup> Data for fifth-year earnings is unavailable. Some data are suppressed for privacy reasons.

ATCs are currently offered in 26 programs. **Table 13** shows outcomes for the ten most popular by number of graduates. First-year earnings varied considerably from \$37,606 (Health Care Administration/Management) to \$75,676 (Registered Nursing). Among all programs, graduates of Information Technology Project Management had the highest earnings after one year (\$83,464). Health Care Administration/Management was the lowest among all programs (\$37,606).

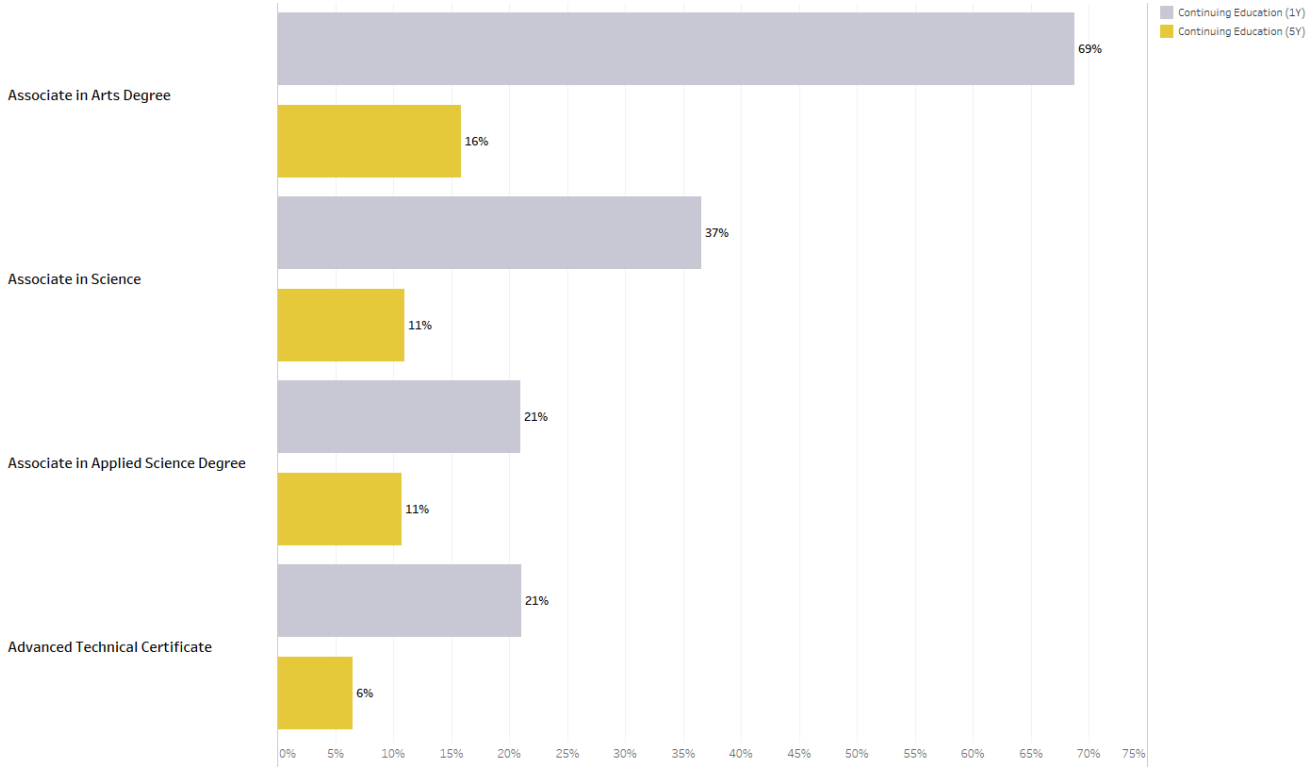
**Table 13. First- and Fifth-Year Employment Outcomes for the Ten-Most Popular ATC Programs**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Medical Radiologic Technology/Science – Radiation Therapist	426	\$59,020	93%	\$70,166	85%
Business Administration and Management, General	239	\$41,352	82%	-- <sup>1</sup>	60%
Health/Health Care Administration/Management	226	\$37,606	77%	\$56,218	84%
Legal Assistant/Paralegal	211	\$41,902	83%	\$53,386	76%
Information Technology	146	\$48,840	75%	-- <sup>1</sup>	78%
Computer and Information System Security/Information Assurance	144	\$44,800	84%	\$59,884	89%
Environmental Science	116	\$37,710	73%	\$62,304	93%
Funeral Service and Mortuary Science, General	88	\$57,200	77%	\$70,452	76%
Registered Nursing/Registered Nurse	75	\$75,676	95%	-- <sup>1</sup>	-- <sup>1</sup>
Network and System Administration/Administrator	59	\$53,150	86%	-- <sup>1</sup>	-- <sup>1</sup>
<sup>1</sup> Data for fifth-year earnings and employment is unavailable. Some data are suppressed for privacy reasons.					

## Associate Degree Students Continuing Their Education

**Figure 5** shows the percentage of associate degree graduates found in the education enrollment data one- and five-years after completion. Most undergraduate degrees are intended to begin a career after completion. However, AA degrees were generally designed as a starting block for further study and they had the highest proportion of enrollment in subsequent education one year after graduation (approximately 69%), followed by AS degree graduates (37%), and graduates of ATC and AAS degrees (21%). Five years after completion, subsequent education enrollment rates ranged from 16% for AA to 6% for ATC.

**Figure 5. Percentage of Associate Degrees and ATC Graduates Continuing Their Education After 1 and 5 Years**



## Bachelor's Degrees

The **bachelor's degree** is a four-year degree that is typically 120 credit hours. It may have an emphasis on science and liberal arts or accommodate unique demands for entry into specific workforce sectors. The bachelor's degree is the most common degree awarded in Florida. According to data from the United States Census Bureau's American Community Survey, graduates with bachelor's degrees nationwide in 2021 had median earnings of more than 74% more than those of high school graduates (\$61,073 to \$35,019). In Florida, the difference was 62% (\$51,381 to \$31,711). In the Florida public postsecondary educational system, bachelor's programs are offered at both SUS institutions and many FCS institutions.

During the five-year period covered within this report (academic years 2016-17 through 2020-21), more than 380,000 students completed a bachelor's degree at one or more of these institutions, which accounts for nearly 35% of all awards issued across the five cohort years.

**Table 14. Employment Outcomes for Graduates with Bachelor's Degrees**

Name	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Bachelor's Degree (FCS)	45,911	\$51,208	84%	\$67,268	82%
Bachelor's Degree (SUS)	334,471	\$41,764	74%	\$63,492	78%
<b>Total</b>	<b>380,382</b>	<b>\$43,048</b>	<b>75%</b>	<b>\$63,934</b>	<b>79%</b>

## Bachelor's Degree Outcomes

In many states, including Florida, two-year colleges have been awarding bachelor's degrees. The authority to award bachelor's degrees is usually limited to more technical areas that are aligned with the career orientation of certificates and associate degrees that are core to the mission of two-year colleges.

During the five-year study period, FCS institutions awarded 12% of all bachelor's degrees granted during the reporting period (45,911), while the 12 institutions comprising the SUS accounted for the other 88% (334,471).

## What Students Study Matters

During the reporting period, there were a total of nearly 300 different bachelor's degree programs offered between FCS and SUS institutions, with at least three dozen being offered in both institution types. Among the ten most popular FCS bachelor's degrees

(Table 15), the highest first-year earnings were found with a Registered Nursing/Registered Nurse degree (\$71,104). Ninety-three percent of the Registered Nursing/Registered Nurse graduates were found in the employment records one year after completion. Among all programs, the earnings ranged from \$34,150 for recipients of Animation, Interactive Technology, Video Graphics, and Special Effects degrees on the low end to \$73,900 on the high end for Respiratory Care Therapy/Therapist degrees.

For SUS institutions, the highest earnings among the most popular programs were also seen in Registered Nursing/Registered Nurse degrees (\$63,470), similar to the most popular FCS programs. Earnings among all programs at SUS institutions ranged from \$24,602 for Photography degrees to \$84,240 for Fire Science/Firefighting.

**Table 15. First- and Fifth-Year Employment Outcomes for Graduates of the Ten-Most Popular FCS Bachelor’s Degrees**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Business Administration, Management and Operations, Other	15,356	\$44,432	81%	\$59,516	79%
Registered Nursing/Registered Nurse	9,727	\$71,104	93%	\$96,664	90%
Business Administration and Management, General	2,507	\$45,000	82%	\$58,612	84%
Information Technology	2,087	\$51,534	82%	\$70,803	82%
Homeland Security, Law Enforcement, Firefighting and Related Protective Services, Other	1,473	\$46,056	80%	\$65,664	79%
Computer/Information Technology Services Administration and Management, Other	1,416	\$54,576	82%	\$75,790	82%
Elementary Education and Teaching	1,198	\$42,908	91%	\$49,298	86%
Human Services, General	1,022	\$36,698	78%	\$44,392	78%
Early Childhood Education and Teaching	864	\$41,672	84%	\$50,400	83%
Health Services Administration	762	\$46,398	84%	\$65,532	80%

**Table 16. First- and Fifth-Year Employment Outcomes for Graduates of the Ten-Most Popular SUS Bachelor’s Degrees**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Psychology, General	26,833	\$32,820	70%	\$52,592	73%
Biology/Biological Sciences, General	16,277	\$30,624	65%	\$57,128	61%
Registered Nursing/Registered Nurse	14,888	\$63,470	91%	\$89,627	86%
Finance, General	13,790	\$50,392	76%	\$81,309	84%
Health Services/Allied Health/Health Sciences, General	13,710	\$31,608	73%	\$60,685	77%
Criminal Justice/Safety Studies	11,783	\$35,400	75%	\$56,708	79%
Marketing/Marketing Management, General	11,253	\$43,720	78%	\$70,254	82%
Business Administration and Management, General	11,004	\$45,644	77%	\$69,918	82%
Political Science and Government, General	9,324	\$37,656	61%	\$63,942	76%
Multi-/Interdisciplinary Studies, General	8,978	\$37,904	76%	\$53,940	80%

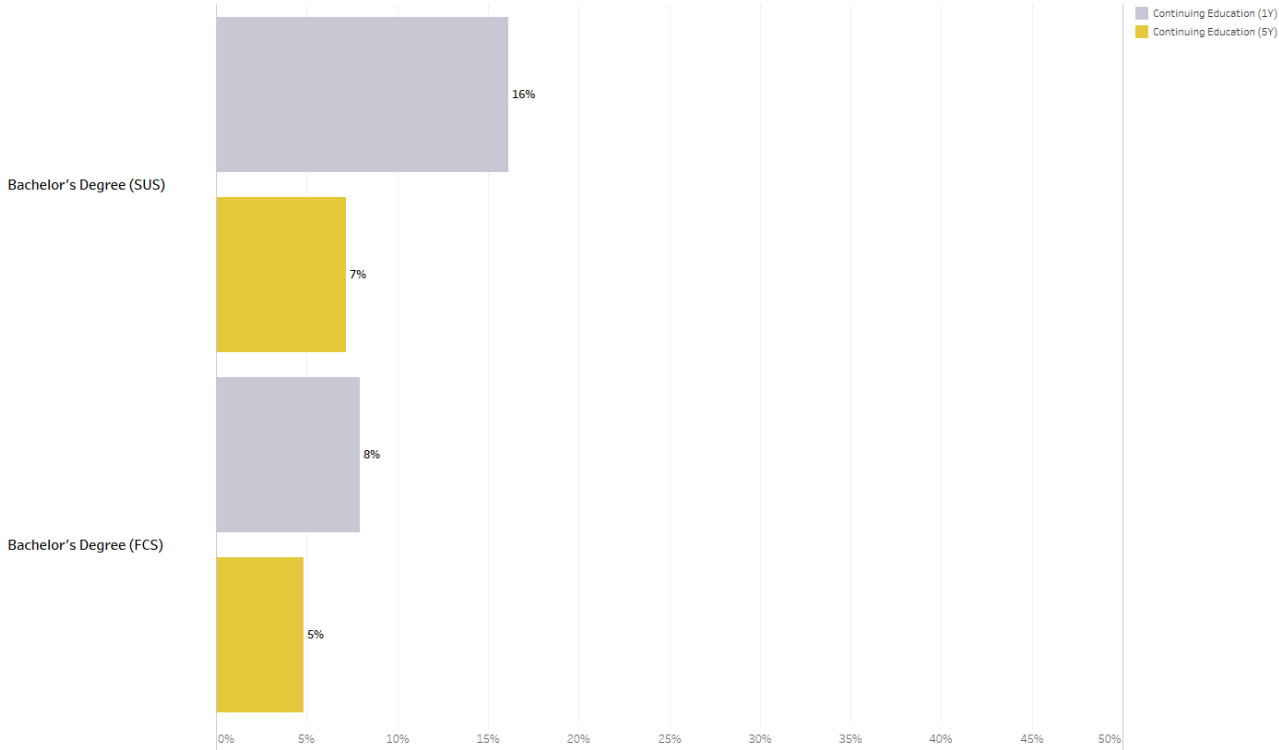
## Bachelor’s Degree Students Continuing Their Education

As is the case nationwide, the bachelor’s degree is the highest degree that most students in Florida will attain. However, a minority of students completing their bachelor’s degree enrolled in subsequent education programs. **Figure 6** displays these rates below.

One year after graduation, approximately 16% of bachelor’s recipients at SUS institutions were enrolled in subsequent education, compared to nearly 8% at FCS institutions. Five years after graduation, those rates fell to 7% at SUS schools and 5% at FCS.



**Figure 6. Percentage of Bachelor's Degree Graduates Continuing Their Education After 1 and 5 Years**



## Master’s and Specialist Degrees

The **master’s degree** is a one- or two-year postgraduate degree that is typically 30-45 credit hours beyond the bachelor’s level, wherein graduates are expected to possess advanced knowledge of a specialized body of theoretical and applied topics, higher order skills in analysis, critical evaluation, or professional application, and the ability to solve complex problems and think rigorously and independently. Within Florida’s public postsecondary framework, master’s degrees are only awarded by SUS institutions.

The **specialist degree** is above the master’s degree but below the doctoral degree and is a one or two-year degree typically 30 to 36 credit hours beyond the master’s level. The specialist degree focuses on subjects related to K-12 education — such as educational leadership, curriculum and instruction, counseling, educational psychology, and administration. Within Florida’s public postsecondary educational system, specialist degrees are only awarded by SUS institutions.

**Table 19. Employment Outcomes of Graduates with Master’s/Specialist Degrees**

Name	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Master’s Degree (SUS)	88,265	\$58,860	76%	\$81,333	79%
Specialist Degree	1,276	\$60,190	84%	\$72,000	87%

Public higher education institutions in Florida awarded 88,265 master’s degrees during the five-year study (8% of all degrees/certificates issued between 2016-17 and 2020-21). Approximately 76% of these graduates were found within employment data one year after completion.

During the five-year period, Florida’s universities awarded 1,276 specialist degrees (approximately 0.1% of all degrees/certifications issued across the five cohort years).

### What Students Study Matters

**Table 20** shows the first- and fifth-year outcomes for graduates of the most popular and highest-earning master’s degrees. Within the most popular programs, Business Administration and Management was the most popular program and second in highest median earnings after a year (\$74,700). Among these most popular, there was a wide range of first-year earnings from slightly more than \$44,500 (Social Work) to more than \$100,000 (Computer and Information Sciences).

Among all master's programs, median earnings had a range of over \$28,800 for Agriculture to over \$195,800 for Dental Clinical Sciences. Seven programs had earnings over \$100,000 in the first year after graduation.

**Table 20. First- and Fifth-Year Employment Outcomes for Graduates of Ten-Most Popular Master's Degrees**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Business Administration and Management, General	10,835	\$74,700	84%	\$109,066	85%
Accounting	3,492	\$60,682	89%	\$95,084	89%
Educational Leadership and Administration, General	2,916	\$54,478	92%	\$68,878	92%
Registered Nursing/Registered Nurse	2,759	\$87,050	89%	\$118,296	89%
Public Health, General	2,274	\$51,204	72%	\$71,032	72%
Clinical/Medical Social Work	2,259	\$45,200	85%	\$59,408	77%
Business/Commerce, General	2,130	\$71,888	84%	\$113,896	82%
Computer and Information Sciences, General	1,994	\$100,372	76%	\$151,205	84%
Social Work	1,982	\$44,542	85%	\$61,746	80%
Curriculum and Instruction	1,784	\$50,740	83%	\$61,096	79%

Specialist degrees are offered in a dozen programs. Employment outcomes for the five most popular are shown in **Table 21**. Eight of these programs have first-year earnings data available during the reporting period. Among those, the median first-year earnings ranged from \$38,768 for Marriage and Family Therapy/Counseling to \$68,786 for Educational Leadership and Administration.

**Table 21. First- and Fifth-Year Employment Outcomes for Graduates with Specialist Degrees, by Program**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Curriculum and Instruction	512	\$66,590	81%	\$83,111	83%
Counselor Education/School Counseling and Guidance Services	245	\$51,476	83%	\$60,472	86%
Educational Leadership and Administration, General	208	\$68,786	95%	\$78,880	96%
School Psychology	116	\$59,756	94%	\$69,880	100%
Mental Health Counseling/Counselor	106	\$41,294	79%	\$59,904	75%

# Doctorate Degrees

The **doctorate degree** is the highest degree awarded in the education system and it is also the least frequently awarded. During the five-year period covered by this report, slightly more than 25,000 graduates (2.3%) received a form of doctorate degree out of the nearly 1.1 million graduates from all three postsecondary education systems.

The doctorate degree can be grouped into three types: law, medical, and non-medical. Law degrees and some doctorate degrees are considered “professional” degrees in that they prepare students for professional careers in fields such as law or medicine. Other doctorate degrees prepare students for academic teaching and/or conducting research. These categories are further defined as follows:

**Doctorate (Law)** | Law school is where students obtain a professional education in law after first obtaining an undergraduate degree, and typically entails a three-year course of study. Law degrees include juris doctor (JD), the Master of Laws (LLM), and the Doctor of Juridical Science (JSD or SJD). Law schools in the United States confer the JD degree, which is a professional doctorate, the highest degree necessary to practice law in the United States, and the final degree obtained by most practitioners in the field. Other degrees that are awarded include the LLM and the JSD or SJD degrees.

**Doctorate (Medical)** | The doctorate in a medical-related field (e.g., MD, DVM, DDM, PharmD) typically consists of four years of medical education. These doctorate programs prepare students to become professional physicians, pharmacists, physical therapists, dentists, or veterinarians.

**Doctorate (Non-Medical)** | The non-medical doctorate (i.e., PhD, DrPH, EdD, DPT, etc.) is an advanced degree that typically requires 72 credit hours of advanced study beyond the bachelor’s level, or 54 hours beyond the master’s level. Even though this group is labeled non-medical, there are several health-related degrees included within this grouping such as physical therapy/therapist, nursing practice, nursing science, and epidemiology, along with many other non-health related degrees. The non-medical related doctorates prepare students for practitioner engagement, academic teaching, and/or for conducting rigorous research.

**Table 24. First- and Fifth-Year Employment Outcomes for Graduates with Doctorate Degrees**

Name	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Doctorate Degree (Non-Medical)	14,053	\$75,572	74%	\$96,448	77%
Law	3,933	\$56,400	76%	\$106,300	83%
Medicine	3,545	\$58,422	85%	\$95,146	88%
Pharmacy	2,824	\$87,140	77%	\$136,516	87%
Veterinary Medicine	555	\$78,624	88%	\$136,788	91%
Dentistry	451	\$114,880	72%	\$165,844	81%

### Doctorate Degree (Law) Outcomes

Four universities within the Florida public postsecondary educational system offer law degrees. Among them, the median first-year earnings were \$56,400 and nearly doubled after the fifth year to \$106,300. More than 3,900 graduates were awarded law degrees during the reporting period.

### Doctorate Degree (Medical) Outcomes

Seven universities within the Florida public postsecondary educational system offer medical doctorate degrees (i.e., Medicine, Veterinary Medicine, Dentistry, and Pharmacy). These medical fields produced more than 7,300 combined graduates during the reporting period. Median first-year earnings for these degrees ranged from \$58,422 for Medicine to \$114,880 for Dentistry. Fifth-year earnings ranged from \$95,146 for Medicine to \$165,844 for Dentistry.

### Doctorate Degree (Non-Medical) Outcomes

Ten universities within the Florida public postsecondary educational system offer doctorate degrees. Non-medical doctorates are offered in many different programs as compared to law and medical doctorates. As a result, there is a wider variation in earnings outcomes. There were 139 non-medical doctoral degree programs during the reporting period. The range of median first-year salaries was \$42,920 on the low end for Music Theory and Composition to \$173,758 for Nurse Anesthetist on the high end. Nurse Anesthetist graduates also had the highest number of graduates found within employment data after one year (95%). Sixteen different programs had median first-year earnings more than \$100,000.

## What Students Study Matters

**Table 25** shows the top 10 doctoral programs by popularity along with median first-year earnings. Tremendous variability exists between the programs regarding first-year earnings. Among the most popular programs, median first-year earnings had a large range from \$64,000 for Chemistry to nearly \$150,000 for Business Administration and Management. There also is a large range in the percentage of graduates found within employment records, ranging from 64% for Psychology to 90% for Nursing. Among all non-medical doctoral programs, the percent of graduates found within employment ranges from 29% for Social and Philosophical Foundations of Education to the 95% mentioned previously for Nurse Anesthetist.

**Table 25. First- and Fifth-Year Employment Outcomes for Graduates of the Ten-Most Popular Non-Medical Doctorate Degrees**

Program	Total Graduates	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Nursing Practice	1,558	\$107,352	90%	\$125,848	88%
Physical Therapy/Therapist	1,459	\$68,670	88%	\$80,888	89%
Curriculum and Instruction	611	\$73,726	76%	\$85,664	78%
Chemistry, General	551	\$64,008	65%	\$108,492	72%
Electrical and Electronics Engineering	466	\$111,803	67%	\$154,987	85%
Educational Leadership and Administration, General	433	\$75,292	89%	\$96,048	87%
Psychology, General	423	\$66,200	64%	\$100,953	74%
Business Administration and Management, General	371	\$148,608	78%	\$158,785	84%
Physics, General	329	\$67,067	66%	\$114,701	75%
Mechanical Engineering	313	\$85,098	66%	\$125,560	71%

## Student Loan Debt

In 2023 quarter four, the National Student Loan Data System (NSLDS) reports \$1.6 trillion in outstanding federal student loan debt, which peaked at \$1.65 trillion in 2023 quarter two. At the end of 2018, debt totaled slightly more than \$1.4 trillion – an 11% increase in the past five years.

Students who default on their loans might be without recourse. Loans cannot be discharged in bankruptcy and more young adults continue to be saddled with outstanding credit card, automobile loan, and student loan debts than ever before. With these burdens, monitoring student loan debt takes on a much higher priority.

In Florida, each institution in the FCS and SUS systems self-reports data about debt to the Office of Student Financial Assistance in Florida's Department of Education.<sup>4</sup> Data contained in the tables below represent the average federal student loan debt of all students that received federal loans in the 2020-21 academic year, including loans from Stafford, Perkins, Graduate PLUS, Parent PLUS, and TEACH programs.

A total of \$1.56 billion across 255,569 federal student loans was dispersed to FCS and SUS institutions in 2020-21.<sup>5</sup> The statewide average was \$6,110 per loanee.

There is a wide range in average loan amount due to many factors, which could include degree type, program length, and student profile. When comparing loan averages to per-enrollment averages, the distribution outcomes are similar. SUS institutions have a standard deviation of \$1,697 per loanee and FCS institutions have a standard deviation of \$631 per loanee. The average loan for students in SUS institutions was \$7,504 per student enrolled. For FCS institutions, the average loan amount for students was \$3,394. Student loan data were not available by the degree program but are instead averaged for each institution.

The average student loan debt per loanee reflects the total amount of student loans for each institutional system (FCS and SUS) in the 2020-21 academic year, divided by the number of students who received a federal student loan during the year.

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<sup>4</sup> District Technical Colleges (DTC) do not report debt information, so average debt for students at these institutions are not reported here.

<sup>5</sup> Excludes Chipola College and North Florida College where data were not reported.



**Table 25. Summary of Federal Loan Data by Sector**

Data Type	FCS	SUS
Federal Loan Amount	\$294,298,251	\$1,267,120,799
Number of Federal Loans	86,715	168,854
Average Loan Amount	\$3,394	\$7,504
Fall 2020 Enrollment	389,931	365,715
Ratio of Loans to Students Enrolled	22	46

## Public Assistance

Up to this point, this report has focused primarily on earnings that are associated with the completion of the most common degrees and certificates awarded in Florida. This section examines public assistance,<sup>6</sup> which is an indicator of the financial well-being of graduates. Eligibility requirements for SNAP, for example, are limited to household incomes below 130% of the poverty line as of 2024.<sup>7</sup> The fewer graduates in need of assistance, the likelier they are to be financially viable.

In the current dataset, more than 84,000 graduates received public assistance one-year post-completion. The percentage of graduates who received public assistance ranged from more than 17% for career certificates to less than 1% for doctorate degrees. Just 0.4% of graduates for Medicine, for instance, received public assistance. Among programs with public assistance data, graduates of Early Childhood Education Career Certificates had the highest percentage of students receiving assistance after one year (46.6%) followed by 46.2% of Home Health Aide Certificates, and 45.5% of Avionics System Technician Certificates.

**Figure 7** reports the percentage of graduates found in the wage database receiving public assistance by certificate/degree. Of note, the levels reported are not adjusted for differences in the skill level or income level of students who enrolled in these different programs. That is, these outcome measures are unadjusted for such factors known to affect student success.

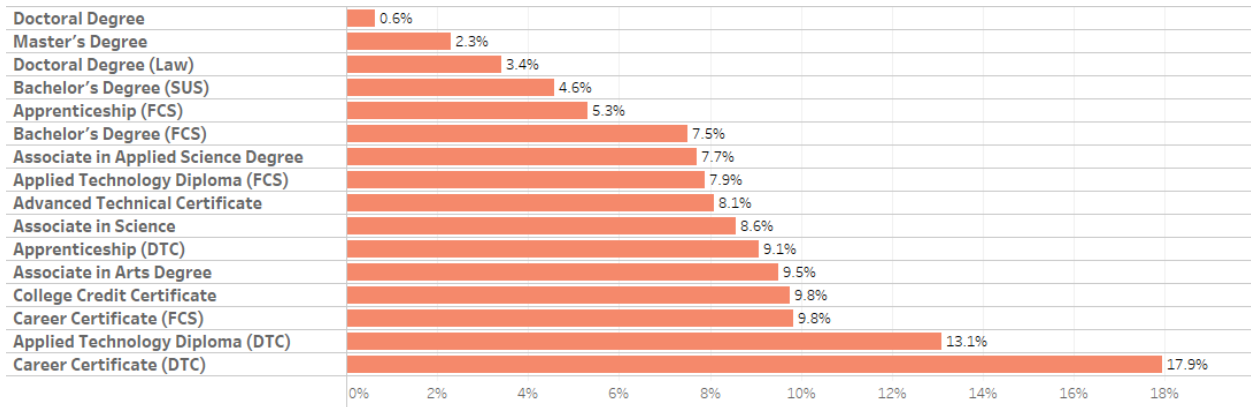
Public assistance for graduates of certificate, diploma, or apprenticeship programs ranged between 2.6% for graduates of Firefighter career certificate programs to 46.6% for graduates of Early Childhood Education career certificate programs. Associate degrees had a smaller range receiving public assistance. On the low end, 2.5% of graduates of Emergency Medical Technology/Technician programs with an associate in science degrees received public assistance. On the high end, 27.6% of Community Health Services/Liaison/Counseling programs with associate in science degrees received assistance. Among bachelor's programs, just 1.1% of Industrial Engineering graduates received public assistance on the low end, compared to 27% of Respiratory Care Therapy/Therapist graduates on the high end. Just 2.3% of master's degrees and 0.6% of nonmedical doctorate degrees received public assistance a year after graduation.

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<sup>6</sup> For purposes of this report, public assistance includes a unique count of graduates who received support or services from the Temporary Assistance for Needy Families (TANF) program and/or the Supplemental Nutrition Assistance Program (SNAP).

<sup>7</sup> SNAP household eligibility: <https://www.fns.usda.gov/snap/recipient/eligibility>

**Figure 7. Percentage of Graduates Receiving Public Assistance One Year After Completion**



# Labor Market Information: Which Jobs Are In Demand?

Although this report primarily focuses on the first- and fifth-year earnings of graduates for academic years 2016-17 through 2020-21, clearly the earnings that graduates command are not only a function of the programs from which they graduate but also of the strength of the labor market into which they enter. The following subsections provide information about the demand for jobs, including information on the fastest-growing industries and occupations forecast through 2031. This section also provides information on the top 20 jobs statewide that require a postsecondary credential. This section aims to supplement the earnings data presented throughout this report to help students anticipate where the demand for workers may be strongest across Florida in the coming years.

## Industry Growth

Long-term projections of growth by industry and occupation are important indicators of labor demand. **Table 27** and **Table 28** show the top 20 industries with the fastest projected growth and the top 20 industries projected to gain the most jobs through 2031.

**Table 27. Forecast of Fastest Growing Industries in Florida, 2023 to 2031**

Rank	Industry	Growth (2023 to 2031)	Percent Growth (2023 to 2031)
1	Other Information Services	2,402	22.5%
2	Warehousing and Storage	21,949	20.8%
3	Educational Services	40,141	19.2%
4	Ambulatory Health Care Services	98,164	17.0%
5	Accommodation	30,006	16.5%
6	Professional and Technical Services	116,550	15.7%
7	Waste Management and Remediation Service	4,709	15.1%
8	Transit and Ground Passenger Transport	2,171	14.7%
9	Social Assistance	22,386	14.5%
10	Nonmetallic Mineral Product Mfg	3,286	13.1%
11	ISPs, Search Portals, & Data Processing	3,701	12.9%
12	Motion Picture & Sound Recording Ind	1,990	12.3%
13	Insurance Carriers & Related Activities	26,056	12.1%
14	Food Services and Drinking Places	100,194	11.8%
15	Rental and Leasing Services	5,389	11.5%
16	Publishing Industries	4,351	11.4%
17	Financial Investment & Related Activity	7,162	11.3%
18	Food Manufacturing	3,971	11.0%
19	Furniture and Home Furnishings Stores	4,017	10.7%
20	General Merchandise Stores	22,401	10.6%

\*This table includes industries with a minimum of 10,000 jobs in 2023.

Source: [FloridaJobs.org/economic-data/employment-projections](https://floridajobs.org/economic-data/employment-projections).

**Table 28. Forecast of Industries Gaining the Most Jobs in Florida, 2023 to 2031**

Rank	Industry	Percent Growth (2023 to 2031)	Growth (2023 to 2031)
1	Professional and Technical Services	15.7%	116,550
2	Food Services and Drinking Places	11.8%	100,194
3	Ambulatory Health Care Services	17.0%	98,164
4	Administrative and Support Services	7.0%	51,446
5	Educational Services	19.2%	40,141
6	Accommodation	16.5%	30,006
7	Specialty Trade Contractors	7.0%	28,596
8	Insurance Carriers & Related Activities	12.1%	26,056
9	General Merchandise Stores	10.6%	22,401
10	Social Assistance	14.5%	22,386
11	Warehousing and Storage	20.8%	21,949
12	Hospitals	5.7%	19,452
13	Real Estate	10.6%	17,674
14	Local Government	2.3%	16,094
15	Credit Intermediation & Related Activity	6.5%	11,679
16	Merchant Wholesalers, Durable Goods	5.5%	11,608
17	Amusement, Gambling & Recreation Ind	5.6%	11,439
18	Construction of Buildings	8.6%	10,796
19	Building Material & Garden Supply Stores	9.3%	9,162
20	Nursing and Residential Care Facilities	5.3%	9,127

Source: [FloridaJobs.org/economic-data/employment-projections](https://floridajobs.org/economic-data/employment-projections).

## Occupational Growth

In addition to identifying which industries are growing, it is also important to consider growth in occupations. **Table 29** shows the occupations requiring a postsecondary education beyond a high school diploma with employment more than 4,000 that are projected to grow the fastest through 2031. Among the top 20 fastest-growing occupations meeting this criteria, three require a postsecondary nondegree award, three require an associate degree, nine require a bachelor's degree, and the remaining five require a master's, doctorate, or professional-level degree.

**Table 29. Forecast of the Fastest Growing Occupations<sup>8</sup> in Florida, 2023 to 2031**

Rank	Standard Occupation Classification (SOC) Title	2023-2031 Projected Growth		Median Wage (2022)	Education
		Growth	Percent Growth		
1	Nurse Practitioners	7,691	46.8	\$51.73	Master's degree
2	Data Scientists	1,871	33.9	\$48.33	Bachelor's degree
3	Physician Assistants	2,589	32.7	\$52.48	Master's degree
4	Information Security Analysts	3,360	31.0	\$51.17	Bachelor's degree
5	Software Developers	18,720	26.3	\$51.66	Bachelor's degree
6	Medical and Health Services Managers	9,120	25.5	\$48.90	Bachelor's degree
7	Physical Therapist Assistants	1,935	25.4	\$30.94	Associate degree
8	Nursing Instructors and Teachers, Postsecondary	1,307	23.0	\$37.08	Master's degree
9	Software Quality Assurance Analysts and Testers	2,799	22.1	\$39.84	Bachelor's degree
10	Operations Research Analysts	1,407	21.6	\$36.09	Bachelor's degree
11	Health Specialties Teachers, Postsecondary	1,556	21.0	\$38.45	Bachelor's degree
12	Ophthalmic Medical Technicians	1,111	20.7	\$20.82	Postsecondary (PS) nondegree award
13	Medical Assistants	12,716	20.4	\$17.76	Postsecondary (PS) nondegree award
14	Speech-Language Pathologists	1,690	20.3	\$41.76	Master's degree
15	Logisticians	2,227	20.2	\$30.03	Bachelor's degree
16	Web Developers	1,119	19.8	\$29.79	Associate degree
17	Veterinary Technologists and Technicians	2,060	19.4	\$17.69	Associate degree
18	Industrial Machinery Mechanics	2,642	19.4	\$25.49	Postsecondary (PS) nondegree award

<sup>8</sup> Includes the top 20 ranked occupations, excluding those that only require a high school diploma or GED.

19	Veterinarians	1,210	18.9	\$50.42	Doctorate degree
20	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	2,879	18.8	\$23.10	Bachelor's degree

Source: [FloridaJobs.org/economic-data/employment-projections](https://www.floridajobs.org/economic-data/employment-projections).



# Appendix

## Graduate Cohort Classes 2016–2017 Through 2020–2021

The cohort includes graduates during their first year after graduation from public postsecondary education institutions for each academic year 2016–2017 through 2020–2021. Florida’s public postsecondary education institutions include the SUS, FCS, and DTCs. The data for this cohort reflects employment and earnings outcomes, election to continue their education, student loan debt, and level of public assistance.

### Key Concepts

Median first- and fifth-year earnings and subsequent education are key concepts related to the employment outcomes used throughout this report. The rates reported are combined first-year rates across graduates in the 2015–2016, 2016–2017, 2017–2018, 2018–2019, and 2019–2020 academic years. The fifth-year rates only include the 2015–2016 academic class. Only earnings records that met or exceeded the annualized Florida minimum wage threshold for the applicable year are included in the median calculations. This approach provides enough data at the local program level to enable students, parents, and other stakeholders to view results. The minimum number of graduates to allow reporting for this report is 10. Results are suppressed when fewer graduates appear with any specific program.

The median is the middle score in a distribution, and the first-year earnings of graduates reported here reflect the median over five-years. Annualized calendar year fourth quarter (October–December) earnings of graduates for each year were arranged by institution from lowest to highest, and the middle value was selected for each institution and from a combined, sorted statewide list. Wage data from the Florida UI program for 2015–2016, and the State Wage Interchange System (SWIS) for 2016–2017, 2017–2018, 2018–2019 and 2019–2020 cohort years<sup>9</sup> are the underlying sources of the employment and earnings data. Some information, such as wages for sole proprietorships and federal employees, may not be included in the data.

UI wage records provide information about employment and earnings only. These records do not provide data about the occupations in which graduates are employed, therefore, it is not possible to know whether graduates are employed in their fields of study.

The education enrollment data reflect a five-year average. The number of students enrolled in higher education in the academic year following graduation for academic

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<sup>9</sup> WRIS2/SWIS data were excluded for the 2015–2016 cohort year.

years 2015–2016 through 2019–2020 was summed and divided by the total number of graduates across the five years. Data on graduates continuing their education out-of-state is not included in this report.

Outcome data related to graduates as well as education enrollment are provided by the Florida Education and Training Placement Information Program (FETPIP). The FETPIP, located in the Florida Department of Education, is a data collection and consumer reporting system established by Florida law to provide follow-up data on former students and program participants who have graduated, exited, or completed a public education or training program in Florida.

## Definitions

**Area of Study** | The area (or field) of study code and program refer to the Classification of Instructional Program (CIP). The CIP was developed and is maintained by the U.S. Department of Education’s National Center for Education Statistics (NCES). According to NCES, “CIP provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity. CIP was originally developed by the U.S. Department of Education’s (NCES) in 1980, with revisions in 1985, 1990, 2000, and 2010.”<sup>10</sup> For more information about CIP codes, visit the [NCES website](#).

**Employment Records** | Employment data obtained from the UI wage records, as provided by the Florida Department of Revenue for the 2015–2016 cohort year, the and the SWIS data for the 2016–2017, 2017–2018, 2018–2019 and 2019-2020 cohort years.<sup>11</sup>

**Found Enrolled in Subsequent Education Percentage** | The number of graduates who were enrolled at a DTC, FCS, or SUS institution in the fall and spring semesters following graduation or completion of an educational program, divided by the total number of graduates.

**Median First-Year Earnings** | The median is the middle score in a distribution, and the first-year earnings of graduates reported here reflect the median over five-years. Annualized calendar year fourth quarter (October–December) earnings of graduates for each year were arranged by institution from lowest to highest, and the middle value was selected for each institution and from a combined sorted statewide list.

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<sup>10</sup> [NCES.ed.gov/ipeds/cipcode/Default.aspx?y=55](https://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55).

<sup>11</sup> WRIS2/SWIS data were excluded for the 2015–2016 cohort year.

**Median Fifth-Year Earnings** | The fifth-year earnings of graduates reported here reflect the median of the annualized calendar year fourth quarter (October–December) earnings of graduates for the 2015–2016 academic year.

**Minimum Wage Threshold** | A threshold was applied to all earnings data based on the annualized Florida minimum wage in the applicable year. Earnings data that fell below this threshold were not included in median earnings calculations. The thresholds applied to the five graduating classes described in this report are shown in **Table 30** below.

**Table 30. Minimum Wage Threshold by Academic Year**

Year	Min. Wage	Min. Wage Threshold 4th Quarter	Min. Wage Threshold Annualized
2013–2014	\$7.93	\$4,124	\$16,494
2014–2015	\$8.05	\$4,186	\$16,744
2015–2016	\$8.05	\$4,186	\$16,744
2016–2017	\$8.10	\$4,212	\$16,848
2017–2018	\$8.25	\$4,290	\$17,160
2018–2019	\$8.46	\$4,399	\$17,597
2019–2020	\$8.56	\$4,451	\$17,805
2020–2021	\$8.65	\$4,498	\$17,992

**Number of Graduates** | The total number of students who completed or graduated from a program.

**Public Assistance Percentage** | The number of graduates who received public assistance from the Temporary Assistance for Needy Families (TANF) program or the Supplemental Nutrition Assistance Program (SNAP) during the fourth quarter of the year, divided by the total number of graduates.

**Student Loan Debt** | The total amount of federal student loans for 2020–2021 at each Florida public postsecondary FCS and SUS educational institution, divided by the number of students who received a federal student loan at those institutions during the 2020–2021 academic year.

**Total Found Employed Percentage** | The number of graduates with earnings, divided by the total number of graduates.

## Data Disclosure

The data provided for the cohorts include only graduates with valid Social Security numbers, and the earnings represent graduates who met the full-time threshold. The full-time threshold equals the hourly minimum wage, multiplied by 40 hours per week, multiplied by 13 weeks. Earnings and public assistance data reflect the fourth quarter of the year (October–December). The earnings are annualized by multiplying by four (which is equal to a year's earnings). Finally, the records are unduplicated between years, therefore, students are represented only once per year. Data on student loan debt are self-reported by each public educational institution at the institution level. The data reflect the average student loan debt of all students (i.e., those who were enrolled and those who graduated) at that Florida public postsecondary educational institution in 2019–2020, divided by the number of students who were enrolled. The data include federal student loans from Stafford, Perkins, Graduate PLUS, Parent PLUS, and TEACH programs



