## Economic Security Report 2020

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### Outcomes for Graduates of Florida's Public Postsecondary Educational Institutions





Prepared by American Institutes for Research

## **About This Report**

The Florida Economic Security Report details the economic outcomes of recent completers from Florida's public postsecondary education institutions. Data from the District Technical Centers (DTCs), the Florida College System (FCS), and the State University System of Florida (SUS) are included in this report.<sup>1</sup> The report documents the variation in first- and fifth-year earnings among completers who earned certificates, diplomas, or degrees from Florida's three public postsecondary educational systems. The report also presents data on the percentage of completers from various institutions who received public assistance, as well as the percentage of completers that are enrolled in continuing education programs. The average federal debt acquired by all students (not just graduates) in academic year 2017-18 is also reported. The results show what type of postsecondary credentials students earn and that what they study matters.

Information in this report comes from four main data sources: the Florida Department of Education's Florida Education and Training Placement Information Program (FETPIP) and the Office of Student Financial Assistance, the Florida Department of Economic Opportunity's Bureau of Workforce Statistics and Economic Research Employment Projections, as well as the Wage Record Interchange System 2 (WRIS2) and the State Wage Interchange System (SWIS).<sup>2 & 3</sup> The data discussed in this report reflect outcomes for graduates and completers in their first year after graduation for a five-year period from academic years 2013–14 to 2017–18 (see **Table ATR1**). All earnings and employment data are provided through the Florida Department of Education. Although the data represents employment and earning outcomes, the data does not include information about the occupations of completers and whether they are employed in their field of study.

<sup>&</sup>lt;sup>1</sup> The SUS includes 12 public universities (<u>http://www.flbog.edu/universities/</u>). The FCS consists of 28 public community colleges and state colleges, some of which offer 4-year bachelor's degrees (<u>http://www.fldoe.org/schools/higher-ed/fl-college-system/colleges/</u>). Fifty-two DTCs offer certifications in a variety of career and technical education program areas (<u>http://fldoe.org/academics/career-adult-edu/dist-ps-instit.stml</u>). These three systems make up Florida's public postsecondary education system.

<sup>&</sup>lt;sup>2</sup> The WRIS2 program was a voluntary system whereby states can share aggregate employment and wage outcomes with other states. The WRIS/WRIS2 operations ceased on December 31, 2019. Replacing the WRIS2 program is the SWIS program. Data from these two programs enables us to report on the employment and earnings data of graduates from Florida who are employed in other states. The membership of the WRIS2 exchange included 45 states, the District of Columbia, and the Commonwealth of Puerto Rico. A map of participating states can be found at <a href="https://www.doleta.gov/performance/pfdocs/WRIS2">https://www.doleta.gov/performance/pfdocs/WRIS2</a> Status Map.pdf. The SWIS program includes wage data from all 50 US states, Puerto Rico, and the District of Columbia. More information can be found at <a href="https://www.dol.gov/agencies/eta/performance/swis">https://www.dol.gov/agencies/eta/performance/swis</a>.

<sup>&</sup>lt;sup>3</sup> The WRIS2 data is linked to the 2013-14 and 2014-15 cohort classes. The SWIS data are linked to the 2016-17 and 2017-18 cohort classes. The 2015-16 cohort class only includes employment data from the state of Florida.

#### Table ATR1. Cohorts Contributing to Outcomes

Cohort	2013–14	2014–15	2015–16	2017–18	2017-18
Contributes to first-year outcomes	✓	$\checkmark$	$\checkmark$	$\checkmark$	√
Contributes to fifth-year outcomes	✓				

It should also be noted that this report includes figures that show the median first- and fifth-year earnings for the five-year academic period of 2013–14 to 2017–18. However, the data was not always available for graduates five years after graduation (i.e., the 2016–17 graduating class). In such cases, the figures only show median earnings for the first-year post graduation.

## **Executive Summary**

The Florida Economic Security Report details the economic outcomes of recent completers from Florida's public postsecondary educational systems, which include the District Technical Centers (DTCs), the Florida College System (FCS), and the State University System of Florida (SUS).

The report aims to document the variation in earnings, employment, continuing education, and public assistance among completers who have earned degrees or certificates from Florida's public postsecondary education institutions. The results show that economic outcomes are correlated with a student's selected degree or certificate and credential level, as well as institution.

The data discussed in this report reflect outcomes for 1,005,331 completers across a five-year period from academic years 2013–14 to 2017–18. Key findings for each of Florida's public postsecondary education institutions by attainment level are as follows.

### **Certificates/Diplomas/Apprenticeships**

- Over 200,000 certificates, diplomas, and apprenticeships were awarded between academic years 2013-14 to 2017-18.
- DTCs issued more than 30% more career certificates than colleges in the FCS. Career certificates issued by DTCs accounted for 60% of all certificates awarded in the state.
  - However, graduates with certificates from colleges in the FCS were more likely to be found in the employment data (84%) than graduates with career certificates from DTCs (73%).
  - In addition, during the five-year period of study, median first-year earnings of graduates from the FCS were higher (\$38,355) than the earnings of graduates with certificates from DTCs (\$29,806).
  - Fifth-year earnings for career certificates were higher than first-year earnings across institutions, but fifth-year employment percentages were often lower.
- Most apprenticeships are offered through DTC institutions. The most common, electrician, has first-year earnings of \$45,128. However, a large degree of variation exists in earnings between apprenticeship graduates (from around \$21,000 to more than \$63,000 for first-year earnings).
- Twenty-one percent of graduates who earned career certificates from DTCs received public assistance, which is 9% higher than the percentage of those who earned their certificates from institutions in the FCS.

### **Associate Degrees**

- The associate degree is the most commonly awarded degree in Florida, with 351,671 degrees awarded between academic years 2013-14 to 2017-18 (this includes 278,602 associate in art (AA) degrees, 70,555 associate in science (AS) degrees, and 2,514 associate in applied science (AAS) degrees).
- The median first-year earnings of graduates with AA degrees are usually lower than those of graduates from many other degree and certificate programs. For example, the median first-year earnings of graduates who were in the labor market with an AS degree were nearly \$19,000 higher than graduates with AA degrees.
- The field of study can greatly affect early career earnings. The median first-year earnings of graduates with an AS degree in early childhood education and teaching was \$26,152. Graduates with an AS degree in nursing earned about \$54,000, and graduates with an AS degree in emergency medicine technology–paramedic earned about \$58,000.
- Students who earned AA degrees were less likely to be found in the employment data one year after completion and more likely to be found in continuing education. This is consistent with the intent of AA degrees as a pathway to a bachelor's degree.
- Students who earned associate degrees were less likely to have received public assistance than students who earned certificates.

### **Bachelor's Degrees**

- The bachelor's degree is the second most commonly awarded degree in Florida, with 341,824 degrees awarded between academic years 2013-14 to 2017-18.
- Median first-year earnings of graduates with bachelor's degrees from SUS institutions varied from \$25,678 (New College of Florida) to nearly \$56,000 (Florida Polytechnic University).
- Biology and psychology are the two most popular fields of study in SUS institutions. Graduates in these fields had relatively low first-year earnings: about \$30,000 for psychology and \$28,000 for biology. In contrast, graduates with degrees in nursing, the third most popular degree, had first-year earnings around \$58,000.
- Completers for eight of the twelve SUS institutions had first-year median wages within a few thousand dollars of each other. This pattern demonstrates the consistent value of bachelor's degrees from Florida's universities.

During the five-year study period, FCS campuses awarded more than 36,000 bachelor's degrees. These degrees were concentrated in a small number of relatively high-paying fields (e.g., registered nursing/registered nurse, information technology, business administration, management and operations). As a result, the median first-year earnings of graduates with bachelor's degrees from FCS institutions were higher (\$45,326) than those of graduates with bachelor's degrees from SUS institutions (\$38,063).

#### Master's/Specialist's/Doctorate

- Over 108,000 master's, specialist's, and doctorate degrees were awarded between academic years 2013-14 to 2017-18.
- With regard to wages, there is clear value-added for master's degrees. Graduates with master's degrees earned more, often far more, than graduates who stopped at a bachelor's degree. The median first-year earnings of graduates with master's degrees was approximately \$55,000 compared with approximately \$38,000 for graduates with bachelor's degrees from Florida's universities.
- Graduates with specialist degrees in curriculum and instruction (education) had the highest one-year median earnings, at more than \$61,000.
- Medical doctorate degrees in pharmacy and dentistry were associated with the highest first-year earnings (more than \$100,000 for some institutions). Earnings among graduates of doctorate degrees in medicine had consistent first-year earnings across institutions, likely due to the compensation structure of the healthcare industry.
- Significant variation exists in first-year earnings for non-medical doctorate degree graduates, with those in business-related programs reporting the highest earnings of over \$140,000, and those with doctorates in physics reporting median first-year earnings of around \$55,000.

### **Student Loan Debt**

Student loan data were not available by degree program of the student and are instead averaged at the level of the institution.

- In the 2017-18 academic year, the average statewide federal loan amount per student was slightly more than \$6,000.
- Average federal debt for students at Florida's FCS Institutions ranged from an average of around \$1,255 (Seminole State College of Florida) to around \$4,350 (Florida Southwestern State College).

• Average federal debt for students at Florida's SUS institutions ranged from \$3,700 (Florida Polytechnic University) to around \$10,000 (Florida A&M University).

### **Public Assistance**

As an additional financial indicator, this report explores the percentage of graduates at each award level who received public assistance one year after completion.

- There was a strong relationship to award level, with the percentage of graduates falling to 3% or less for the master's degree level or above.
- Some differences were apparent between graduates with awards at the same level depending on whether they completed their award at an institution in the Florida College System (FCS) or at a District Technical Center (DTC).

### **Progress**

This report compares median first- and fifth-year wages by award over six Economic Security Reports (2015 through 2020). At nearly every award level, median first-year salaries have increased linearly over the years.

### Labor Market Information: Where the Jobs Are

The report also presents data on industries and occupations (those that require at least a postsecondary credential) that are likely to be most in demand through 2028.

- The 2020 and 2028 industry and occupational projections reflect the continued effects of COVID-19 and the efforts to reopen businesses and services. These effects are reflected in the 2020 employment estimates and result in higher employment growth rates in those industries and occupations which have been impacted the most.
- The food service and drinking places industry (which was significantly impacted by COVID-19) is projected to add over 200,000 new jobs through 2028, the most of any industry within Florida.
- Nine of the top 20 fastest growing occupations are health and/or wellness related due to population growth, an aging population, and improved medical technologies.

### Summary

- Many pathways to good earnings are available to students in Florida.
- Although there is a positive relationship between the level of the certificate/degree and earnings, the labor market clearly places a high relative value on technical associate degrees.
- At the bachelor's degree level, the data show that graduates from many campuses throughout the state, earn on average, roughly the same first-year wages.
- The data reported are short-term results from the labor market. In the long-term, graduates with bachelor's degrees tend to increase their earnings faster than those with associate degrees, so the short-term differences documented here may erode over time.

More findings are available at http://launchmycareerfl.org/.

In addition to <u>http://launchmycareerFL.org</u>, more information is available at the following sites:

- <u>Know Your Schools</u> is an online resource that provides system reports on Florida's schools at the primary, secondary, and postsecondary level (i.e., District Career & Adult Education and Florida College System (FCS)).
- <u>Baccalaureate Follow-up Study</u> is a report prepared by the Florida Board of Governors that provides students, parents, educators, and policymakers with information about the outcomes of graduates after they complete a bachelor's degree from the State University System of Florida (SUS).
- <u>The Florida ScoreBoard</u> offers key metrics for students at SUS institutions, including graduation rates, degree cost and other useful information.

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## Introduction

The Florida Economic Security Report, per s. 445.07, Florida Statue, provides information on employment and earnings outcomes for individuals who graduated from Florida's post-secondary educational institutions (i.e., post high school apprenticeships, certificates, associate degrees, and bachelor's through doctoral degrees). Results presented in this report show the variation in earnings, employment, continuing education, public assistance, and federal student loan debt for students who have earned degrees or certificates from the following public educational systems:

- District Technical Centers (DTCs)
- Florida College System (FCS)
- State University System of Florida (SUS)

The results show that economic outcomes are primarily correlated with a student's credential level. **Figure 1** below shows the first- and fifth-year earnings outcomes by credential for the 1,005,331 graduates who completed their program over the 5-year academic period of 2013-14 through 2017-18. The figure highlights that earnings increase with each step along the education ladder.



#### Figure 1. Median First- and Fifth-Year Earnings by Credential

The data discussed in this report reflects median outcomes for graduates in their firstand fifth-year after graduation for academic years 2013–14 to 2017–18. Only first-year or fifth-year earnings that met or exceeded the annualized Florida minimum wage in the applicable year are included in the earnings data. Median first-year earnings are calculated across five cohorts; five-year earnings are based solely on the 2013-14 cohort. As noted in the following pages, post-completion earnings vary among students who finish with different credentials, but longer courses of study do not always lead to higher earnings. However, it should be noted that no demographic information about graduates other than their institution and program of study are available, so it is not possible to determine the average age or the point at which the typical completer of a program is in their career. These factors may impact median earnings.

**Figure 2** illustrates the geographic distribution of institutions across Florida, indicating that postsecondary education opportunities are well dispersed across the state. The report documents the variation in first-year earnings for graduates who earned degrees or certificates from all three postsecondary education systems (i.e., DTC, FCS, and SUS). The report also presents data on other outcomes, such as the percentage of graduates who enrolled in further education. The report presents this data for programs, not just institutions, and reflects the type of postsecondary credential graduates earn, what they study, and where they study matters.



#### Figure 2. Map of Florida Public Postsecondary Educational Institutions

The number of completers in the data, by credential (i.e., degree/certificate), are shown in **Figure 3** (data collapsed by main degree/certificate types) and **Figure 4** (data for disaggregated for all degree/certificate categories). Associate degrees are most common, followed by bachelor's degrees. The least common award is an apprenticeship from one of Florida's colleges, followed by a specialist degree from an SUS institution. As this report will describe, the first- and fifth-year outcomes differ greatly both by level of the degree/certificate a student completes and by area of study for that degree/certificate.

#### Figure 3. Number of Completers by Credential (Collapsed)



#### Figure 4. Number of Completers by Credential (All Categories)



# Florida's Public Postsecondary Education Institutions

Florida's public postsecondary education system consists of 91 institutions within the following three systems: District Technical Centers (DTCs), the Florida College System (FCS), and the State University System of Florida (SUS). During the five-year period covered within this report (academic years 2013–14 to 2017–18), 1,005,331 students completed a certificate or degree at one (or more) of these institutions. The following subsections provide a brief summary of each system.

### **District Technical Centers**

The DTCs are a system of 51<sup>4</sup> centers that offer certifications in a variety of career and technical education program areas. Career and adult education is designed to meet the needs of students and industry. The DTCs represent a significant collaboration and partnership across both private and public sectors throughout Florida with the goal to improve Florida's workforce.

### Florida College System

The FCS is the primary access point to higher education for Floridians, including recent high school graduates and returning adult students. The FCS consists of 28 public community colleges and state colleges (more than 72 campuses), some of which offer 4-year bachelor's degrees, and is designed to respond quickly and efficiently to meet the demand of employers by aligning certificate and degree programs with regional workforce needs.

### State University System of Florida

The SUS consists of 12 public universities in Florida that provide over 1,800 programs at the baccalaureate, graduate, and professional levels, which awarded over 87,000 degrees in the 2017-18 academic year at all levels. The institutions that comprise the SUS enrich the state by providing high-quality, rigorous academic programs to meet the state's workforce needs. The SUS institutions also perform cutting-edge research to address global problems and engage in community outreach to improve the quality of life for all Floridians. In addition, Florida has been ranked as the #1 state for higher education by U.S. News and World Report for the past three consecutive years (2017, 2018, and 2019).

<sup>&</sup>lt;sup>4</sup> Some institutions that are not official District Technical Centers, but are affiliated with these programs, such as high schools, offer certificates, diplomas, and apprenticeships. These institutions are included in the figures below and in Figure 1 but not in the count of District Technical Centers (DTCs).

## **Certificates, Diplomas, and Apprenticeships**

In Florida's public postsecondary education system, students are afforded the opportunity to pursue a wide range of certificate, diplomas, apprenticeships, and degrees. Career and adult education is 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, 202,485 students completed a certificate, a diploma, or an apprenticeship at one (or more) of these institutions (20% of all certifications/degrees awarded in Florida in the five cohort years). The following subsections present a brief summary of each system.

#### **Certificate Outcomes**

Certificate programs are available in many specialties for students who want to spend fewer than 2 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 the FCS and DTCs offer these certificate programs as non-college credit. Examples of career certificates include correctional probation officer, cosmetologist, culinary operator, firefighter, and practical nurse. Career certificates also can be referred to as technical certificates.
- Postsecondary vocational certificate programs are a series of college-credit 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. Postsecondary vocational certificates also may be called college credit certificates.

Completers 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 (\$28,576) were lower than those of completers with career certificates from FCS institutions (\$38,355), DTC institutions (\$29,806), or postsecondary vocational certificates (\$35,286). However, completers of certificate courses, on average, had lower median first-year earnings than graduates with AS degrees (\$47,477). Together, Florida's FCS and DTCs awarded 184,522 career certificates for the academic years of 2013-14 through 2017-18.

#### **Career Certificate Programs**

Career certificate programs consist of a series of technical (non-college credit) courses that are designed to prepare students for entry-level employment in specific career fields (e.g., cosmetology, law enforcement, practical nursing). Institutions in both the FCS and DTCs award these types of certificates. There are systemic differences in the fields in which these certificates are awarded, including type of school, median first-year earnings, and student outcomes.

As shown in **Table 1**, DTCs awarded more career certificates than Florida's colleges (67,446 versus 45,217, respectively). However, students who completed career certificates from FCS institutions were more likely to be found in the employment records (84% compared with 73% of completers)<sup>5</sup> and earned a higher first-year median wage (\$38,355 compared with \$29,806).

Outcome Metric	Career Certificate (DTC)	Career Certificate (FCS)
Median First-Year Wage	\$29,806	\$38,355
Total Completers	67,446	45,217
Total Employed	50,478	36,354
Percentage Employed	73%	84%

#### Table 1. Employment Outcomes of Completers with Career Certificates

#### **Career Certificates Awarded by District Technical Centers**

**Figure 5** shows the median first-year earnings of graduates with career certificates awarded by DTCs. Earnings outcomes varied considerably, ranging from \$20,260 (Coral Gables Sr High Adult Ed) to \$53,268 (Community School North).

<sup>&</sup>lt;sup>5</sup> Part of this gap may be a function of the coverage of the Florida Unemployment Insurance (UI) wage data. For example, many of the occupations for which career certificates are awarded can lead to self-employment, which may not be captured in the wage data.

# Figure 5. Median First- and Fifth-Year Earnings of Completers of DTC Career Certificates



# Figure 5. Continued - Median First- and Fifth-Year Earnings of Completers of DTC Career Certificates

	\$0	\$20,000	\$40,000	\$60,000
Robert Morgan Educational Center and Technical College				
Okaloosa Technical College				
William T McFatter Technical College				
North Miami Senior Adult Ed.	-			
Pinellas Technical College-Clearwater	3			
Lorenzo Walker Technical College				
Ridge Technical College				
Pinellas Technical College-St. Petersburg				
Atlantic Technical College				
Lake Technical College		l,		
Traviss Technical College				
Sheridan Technical College				
Emerald Coast Technical College		- 7		
Gadsden Technical Institute				
Erwin Technical College				
Marion Technical College		ļ,		
Manatee Technical College		ſ		
Orange Technical College-Mid Florida Campus				
Technical Education Center-Osceola		1		
First Coast Technical College		Î		
Withlacoochee Technical College				
Suncoast Technical College		l.		
Florida Panhandle Technical College		Î		
Clewiston Adult School				
Bradford-Union Technical Center		r		
George Stone Technical Center		i i		
Miami Lakes Educational Center and Technical College				
William H. Turner Technical Adult				
Pasco High Adult Education				
George T Baker Aviation Technical College		l.		
Big Bend Technical College		r		
Fort Myers Technical College		i.		
Miami Springs Sr. High Adult				
Miami Senior Adult Ed. Center				
Suncoast Tech Educ Center- Extension Campus				
Community School North	l l		I,	
	F	irst-year Earnii	ngs Fifth	-year Earnings

**Figure 6** displays the percentage of completers found in the employment records one and five years after completion. Completers of career certificates from Baker County Adult Center were the most likely to be found in the employment records (96%), while those from Okeechobee Youth Development Center were least likely (36%) to be found.



# Figure 6. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of DTC Career Certificates

First-year Employment Fifth-year

# Figure 6. Continued - Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of DTC Career Certificates



First-year Employment

Fifth-year Employment

#### Career Certificates Awarded by the Florida College System

Colleges in the FCS also award career certificates, however not as many as awarded by DTCs. The FCS also focuses on career certificates in different fields of study than DTCs. As noted in **Table 1**, the statewide median first-year earnings of completers with career certificates from FCS institutions was more than \$38,000. And, as shown in **Figure 7**, the medians for FCS certificate completers varied by institution. For example, completers from Pensacola State College had a median first-year wage of less than \$27,000, while Broward College certificate completers had median earnings of over \$55,000. This broad range shows why detailed program-level analysis is essential.

# Figure 7. Median First-Year Earnings of Completers of Career Certificates, by FCS Institution

Pensacola State College Chipola College Daytona State College South Florida State College Eastern Florida State College North Florida College Pasco-Hernando State College Santa Fe College Miami Dade College Palm Beach State College Florida State College at Jacksonville Indian River State College Northwest Florida State College Florida Gateway College Gulf Coast State College Tallahassee Community College College of Central Florida Saint Johns River State College Seminole State College of Florida Florida SouthWestern State College Hillsborough Community College Polk State College Valencia College The College of the Florida Keys St Petersburg College Broward College



First-year Earnings

Fifth-year Earnings

**Figure 8** displays the percentage of completers within the employment records oneand five-years post-completion. Pensacola State College completers are found at the lowest rate (64%), whereas Polk State completers are found at the highest rate (96%) one year after completion. It is important to remember, however, that completers may not appear in the employment records for multiple reasons, including self-employment, continuing education, employment outside the Wage Record Interchange System 2 (WRIS2) consortium of states in cohort years 2013-14 or 2014-15, or employment outside the state of Florida in the 2015-16 cohort year.

# Figure 8. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Career Certificates, by FCS Institution

Pensacola State College Chipola College Indian River State College Florida State College at Jacksonville Eastern Florida State College Miami Dade College South Florida State College Palm Beach State College Daytona State College North Florida Community College Pasco-Hernando State College Florida Gateway College Santa Fe College Hillsborough Community College Seminole State College of Florida Northwest Florida State College Gulf Coast State College Saint Johns River State College Florida Keys Community College Broward College College of Central Florida St Petersburg College Valencia College Tallahassee Community College Florida SouthWestern State College Polk State College



#### **Postsecondary Vocational Certificates**

**Figure 9** shows the median first- and fifth-year earnings by institution for completers of postsecondary vocational certificates. With statewide median first-year earnings approximately \$35,200, completers with postsecondary vocational certificates had, on average, higher median first-year earnings than those who completed career certificates from DTCs. Completers from The College of the Florida Keys had the lowest median earnings, slightly over \$29,000. In contrast, completers with postsecondary vocational certificates from South Florida State College had median first-year earnings that exceeded \$51,000. **Figure 10** shows that the proportion of completers found employed in the state also varies widely, ranging from 68% for Daytona State College to 84% for Florida SouthWestern State College and Chipola College.

# Figure 9. First- and Fifth-Year Earnings for Completers of Postsecondary Vocational Certificates, by FCS Institution

The College of the Florida Keys State College of Florida-Manatee-Sarasota College of Central Florida Saint Johns River State College Valencia College Indian River State College Florida State College at Jacksonville Polk State College Pensacola State College Seminole State College of Florida Miami Dade College Daytona State College Santa Fe College Northwest Florida State College Eastern Florida State College Broward College Florida Gateway College Hillsborough Community College Palm Beach State College Gulf Coast State College Florida SouthWestern State College Lake-Sumter State College Tallahassee Community College St Petersburg College Chipola College Pasco-Hernando State College North Florida College South Florida State College



# Figure 10. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Postsecondary Vocational Certificates, by FCS Institution



### **Applied Technology Diploma Outcomes**

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.

**Figures 11** and **12** show outcomes for completers of applied technology diplomas from FCS institutions. First-year earnings were highest for those completing a diploma at Gulf Coast State College (\$38,164) and lowest for those completing at Santa Fe College (\$21,412).

# Figure 11. First- and Fifth-Year Earnings for Completers of Applied Technology Diplomas, by FCS Institution

Santa Fe College Pasco-Hernando State College Seminole State College of Florida College of Central Florida Northwest Florida State College Valencia College Eastern Florida State College Broward College Indian River State College Florida Gateway College Daytona State College Tallahassee Community College Polk State College Palm Beach State College St Petersburg College South Florida State College Pensacola State College North Florida College Florida State College at Jacksonville The College of the Florida Keys Gulf Coast State College


# Figure 12. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Applied Technology Diplomas, by FCS Institution



Completers from the College of Central Florida were most likely to be found in the employment records one year after completion. Santa Fe College completers were least likely to be found one year after completion.

**Figures 13** and **14** show outcomes for completers of applied technology diplomas at DTC institutions. George Stone Technical College completers saw the highest first-year earnings (\$34,108), while those from Orange Technical College-Mid Florida Campus saw the lowest (\$23,060).

Orange Technical College-Mid Florida Campus completers were the least likely to be found in the employment records one year after completion. Charlotte Technical College completers were the most likely to be found in the employment records one year after completion.

# Figure 13. First- and Fifth-Year Earnings for Completers of Applied Technology Diplomas, by DTC Institution







First-year Employment

Fifth-year Employment

## **Apprenticeship Outcomes**

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.

First-year wages were higher for those who attended FCS institutions than those who attended DTC institutions (FCS = \$44,302; DTC = \$36,688) and continued to be higher for FCS than DTC apprenticeship completers for fifth-year wages (\$53,329 and \$43,403, respectively). We see higher levels of FCS completers in the employment records as well (88% for FCS and 81% for DTC completers). Five-year employment percentages were slightly lower for both sets of completers (85% for FCS and 79% for DTC).

**Figures 15** and **16** show employment outcomes for FCS apprenticeship completers. Daytona State College completers had the lowest first-year earnings (approximately \$38,000), while Hillsborough Community College, Seminole State College of Florida, and Palm Beach State College completers had the highest (more than \$48,000). In addition, Daytona State College had the lowest percentage of completers found in the employment records one year after completion.



### Figure 15. First- and Fifth-Year Earnings for FCS Apprenticeship Completers

# Figure 16. Percentage Found in Employment Data After 1 Year and 5 Years for FCS Completers of Apprenticeships



**Figures 17** and **18** show employment outcomes for DTC apprenticeship completers. Clearly, significant variation exists between institutions.



### Figure 17. First- and Fifth-Year Earnings for DTC Apprenticeship Completers

## Figure 18. Percentage Found in Employment Data After 1 Year and 5 Years for DTC Completers of Apprenticeships

100% 0% 20% 40% 60% 80% Orange Technical College-Orlando Campus North Technical Education Center Brewster Technical College James Irvin Adult Education Flagler Technical Institute West Technical Education Center Manatee Technical College Pinellas Technical College-St. Petersburg Atlantic Technical College Learey Technical College Erwin Technical College Fred K Marchman Technical College Community School North Pinellas Technical College-Clearwater George Stone Technical Center Miami Lakes Educational Center and Technical College Aparicio-Levy Technical College Orange Technical College-Westside Campus Radford M Locklin Technical Center Sheridan Technical College Orange Technical College-Mid Florida Campus Suncoast Technical College Marion Technical College Lake Technical College First Coast Technical College Fort Myers Technical College

First-year Employment

Fifth-year Employment

## What Students Study Matters

**Table 2** presents student outcomes for the most popular career certificate programs offered by DTCs. Median first-year earnings ranged from \$22,652 (cosmetology) to about \$41,000 (commercial vehicle driving and law enforcement officer) for programs with the most completers (**Table 2A**), and from \$46,560 for commercial art technology to \$58,692 for firefighting-pump operator specialty for programs with the highest median first-year earnings (**Table 2B**).

## Table 2. First- and Fifth-Year Employment Outcomes for Completers of Popular Career Certificate Awarded by District Technical Centers

Program	Total Completers	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	5,662	\$35,624	86%	\$46,560	86%
Cosmetology	3,165	\$22,652	66%	NA	NA
Automotive Service Technology	2,197	\$27,112	74%	\$36,280	70%
Law Enforcement Officer	2,102	\$41,068	87%	\$51,092	85%
Commercial Vehicle Driving	2,098	\$40,648	72%	\$52,980	65%
Practical Nursing Postsecondary	1,690	\$36,108	85%	NA	NA
Commercial Foods and Culinary Arts	1,659	\$24,180	73%	NA	NA
Child Care Center Operations	1,643	\$27,936	75%	NA	NA
Welding Technology	1,627	\$33,204	73%	NA	NA
Electricity	1,550	\$29,060	74%	\$37,896	71%

### A. Ten Most Popular Career Certificates by Number of Completers

### B. Top 10 Career Certificates By Median First-Year Earnings

Program	Total Completers	Median First- Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Firefighting-Pump Operator Specialty	139	\$58,692	98%	\$72,528	94%
Paramedic <sup>6</sup>	72	\$54,612	96%	NA	NA
Paramedic	165	\$54,276	96%	NA	NA

<sup>&</sup>lt;sup>6</sup> There are two different "Paramedic" programs that have separate Classification of Instruction (CIP) codes (0351090406 and 0351090416) but are labeled with the same name.

Program	Total Completers	Median First- Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Turbine Generator Maintenance, Inspection and Repair	67	\$52,372	75%	\$77,012	89%
Radiologic Technology	28	\$50,232	93%	NA	NA
Electrical and Instrumentation Technology 2	17	\$48,856	100%	NA	NA
Heavy Equipment Service Technician	21	\$48,820	90%	NA	NA
Electroneurodiagnostic Technology	37	\$47,588	76%	NA	NA
Correctional Officer to Law Enforcement Officer (Crossover)	291	\$47,028	85%	\$50,148	88%
Commercial Art Technology	21	\$46,560	62%	\$26,612	71%

As shown in **Table 3**, the differences in first-year earnings varied greatly between the popular certificate programs at the FCS institutions. At the high end, law enforcement officer and correctional officer were above \$40,000, whereas cosmetology and patient care assistant completers were below \$23,000 (**Table 3A**). For programs with the highest first-year median earnings, the range was from \$60,768 for heavy equipment mechanics to \$44,672 for correctional officer to law enforcement officer (crossover) (**Table 3B**). The popular programs listed in **Table 3A** (which represent 27,128 graduates) tend to pay substantially less than the programs listed in **Table 3B** (which represent 1,219 graduates).

# Table 3. First- and Fifth-Year Employment Outcomes for Completers of Popular Career Certificate Awarded by the Florida College System (FCS)

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Law Enforcement Officer	9,900	\$44,620	90%	\$55,956	85%
Correctional Officer	3,727	\$41,756	94%	\$48,584	87%
Fire Fighter	3,000	\$37,052	88%	\$56,496	90%
Practical Nursing	2,074	\$36,128	87%	\$50,356	88%
Cosmetology	1,772	\$22,528	69%	\$29,144	64%
Insurance Customer Service Representative	1,748	\$30.136	79%	\$36,336	76%
Fire Fighter I/II	1,584	\$39,460	89%	NA	NA

### A. Ten Most Popular Career Certificates by Number of Completers

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Phlebotomy	1,484	\$25,184	76%	\$33,180	78%
Patient Care Assistant	949	\$22,900	70%	\$29,332	76%
Insurance Claims Adjustor	890	\$40,516	78%	\$46,672	72%

### B. Top 10 Career Certificates By Median First-Year Earnings

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth- Year Earnings	Percentage Found in Employment Data After 5 Years
Heavy Equipment Mechanics	22	\$60,768	100%	NA	NA
Transit Technician 3	17	\$60,052	100%	NA	NA
Transit Technician 2	19	\$59,944	100%	NA	NA
Firefighting–Pump Operator Specialty	198	\$58,928	96%	\$84,932	95%
Paramedic	12	\$57,316	100%	NA	NA
Transit Technician 1	31	\$57,204	94%	\$78,700	100%
Auxiliary Law Enforcement Officer	111	\$51,220	81%	\$48,648	90%
Medium and Heavy Duty Truck and Bus Technician 2	37	\$46,300	86%	NA	NA
Police Service Aide	117	\$45,088	96%	\$61,280	91%
Correctional Officer to Law Enforcement Officer (Crossover)	655	\$44,672	95%	\$59,284	88%

**Table 4A** identifies the median first-year earnings of completers with the most popular postsecondary vocational certificates. Completers of postsecondary vocational certificates in childcare provider/assistant had the lowest median first-year earnings (\$26,192). At the high end of the scale, completers of postsecondary vocational certificates in network and system administration/administrator had median first-year earnings of approximately \$39,744 and median five-year earnings of \$47,352. This parallels the results for AS degrees, where completers in the EMT paramedic program had the highest median first-year earnings and showed the steepest growth in earnings in five years. The highest earning postsecondary vocational certificates are shown in **Table 4B**. The median first-year salary for fire prevention and safety technology/technician was \$79,136 and for fire services administration was \$76,328. This clearly shows the certificate/program is key to salary outcomes (a \$52,944 difference between childcare provider as compared to fire prevention).

Table 4. First- and Fifth-Year Employment Outcomes for Completers of Popular Postsecondary Vocational Certificates Awarded by the Florida College System (FCS)

A. Ten Most Popular Postsecondary Vocational Certificates by Number of Completers

Name	Total Completers	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	16,839	\$34,144	74%	\$42,828	75%
EMT Paramedic	9,979	\$38,448	86%	\$55,332	87%
Accounting Technology/Technician and Bookkeeping	9,635	\$33,588	73%	\$43,904	76%
Entrepreneurship/Entrepreneurial Studies	4,653	\$34,252	72%	\$41,848	74%
Information Technology	3,265	\$36,084	72%	\$48,572	74%
Child Care Provider/Assistant	2,985	\$26,192	72%	\$29,552	68%
Office Management and Supervision	2,904	\$28,948	70%	\$34,268	73%
Network and System Administration/Administrator	2,590	\$39,744	75%	\$47,352	82%
Chemical Technology/Technician	2,341	\$32,236	70%	\$39,744	80%
Biotechnology	2,225	\$32,680	70%	\$54,568	83%

### B. Top 10 Postsecondary Vocational Certificates By Median First-Year Earnings

Name	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Fire Prevention and Safety Technology/ Technician	434	\$79,136	95%	NA	NA
Fire Services Administration	121	\$76,328	90%	\$97,456	93%
Management Science	13	\$55,400	85%	NA	NA
Medical Radiologic Technology/Science– Radiation Therapist	66	\$54,704	91%	\$63,260	100%
Electrical and Power Transmission Installation/Installer	36	\$52,784	89%	NA	NA
Nuclear Medical Technology/Technologist	28	\$50,456	79%	NA	NA
Banking and Financial Support Services	55	\$49,572	93%	NA	NA

Name	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	86	\$49,316	80%	\$52,516	92%
Quality Control Technology/Technician	154	\$47,860	89%	\$74,404	89%
Logistics, Materials, and Supply Chain Management	14	\$47,220	64%	NA	NA

Applied Technology Diplomas are offered in only a few programs (7 at FCS institutions and 12 at DTC institutions), so outcomes for all programs are shown in **Table 5** by educational system. Certificates related to EMT were the most common in both systems. Median first-year earnings ranged from around \$26,000 to approximately \$36,000 for completers from FCS, and around \$24,000 to approximately \$43,000 for completers from DTC, indicating that both systems' completers had a similar range of earnings (except for medial clinical laboratory technicians).

# Table 5. First- and Fifth-Year Employment Outcomes for Completers of an AppliedTechnology Diploma

Name	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
EMT Paramedic	6,265	\$29,340	79%	\$47,928	85%
Dental Assisting/Assistant	369	\$27,496	81%	\$36,140	83%
Health Information/Medical Records Technology/Technician	188	\$26,300	70%	\$30,776	72%
Pharmacy Technician/Assistant	175	\$26,060	81%	\$32,504	81%
Clinical/Medical Social Work	29	\$30,332	79%	NA	NA
Plant Protection and Integrated Pest Management	15	\$35,640	100%	NA	NA
Golf Course Operation and Grounds Management	11	\$36,224	82%	NA	NA

### A. FCS

### B. DTCs

Name	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
EMT - ATD	688	\$28,928	81%	NA	NA
EMT (basic)	368	\$25,516	77%	\$43,084	82%
Medical Coder/Biller	360	\$30,264	81%	NA	NA
EMT (basic) - ATD	346	\$28,448	79%	NA	NA
Dental Assisting Technology and Management - ATD	315	\$27,836	89%	NA	NA
Pharmacy Technician - ATD	119	\$26,124	780%	NA	NA
Medical Clinical Laboratory Technician - ATD	101	\$39,844	81%	NA	NA
Medical Coder/Biller	98	\$31,412	74%	\$38,504	70%
Dental Assisting Technology and Management	73	\$27,700	90%	\$35,600	81%
Medial Clinical Laboratory Technician	39	\$43,292	85%	\$45,256	92%
Pharmacy Technician	28	\$27,656	93%	\$27,804	86%
Unit Treatment and Rehabilitation - ATD	12	\$24,324	75%	NA	NA

Only a handful of apprenticeship programs are offered at 6 FSC institutions. Outcomes for these programs are shown in **Table 6**. Apprenticeships in plumbing technology/plumber programs had by far the highest first-year earnings. Childcare provider/assistant program completers had the lowest first-year earnings, again by a sizable degree.

# Table 6. First- and Fifth-Year Employment Outcomes for Completers ofApprenticeships Awarded by the Florida College System (FCS)

Name	Total Completers	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	399	\$44,388	95%	\$50,404	90%
Plumbing Technology/Plumber	136	\$60,080	85%	\$68,184	89%
Heating, Air Conditioning, Ventilation, and Refrigeration Maintenance Technology/ Technician	118	\$47,772	92%	NA	NA
Pipefitting/Pipefitter and Sprinkler Fitter	92	\$48,404	87%	\$61,856	76%

Name	Total Completers	Median First-Year Earnings		Median Fifth-Year Earnings	
Child Care Provider/Assistant	65	\$22,412	46%	\$25,948	60%
Sheet Metal Technology/Sheetworking	14	\$42,684	93%	NA	NA
Carpentry/Carpenter	13	\$38,400	85%	NA	NA

**Table 7** shows first- and fifth-year employment outcomes for apprenticeship completers in the most popular programs at DTC institutions. The most common apprenticeship, electrician, also had one of the highest median first-year earnings—more than \$45,000. Other lucrative apprenticeships were also in the top 10 most common—fire fighter and structural steel worker. Amongst the highest first-year wages, there is a spread of more than \$38,000 between Elevator Constructor Mechanic (\$88,660) and Commercial and Industrial Insulation (\$50,636), again indicating that the program of study is key in determining future earnings for completers of apprenticeships.

# Table 7. First- and Fifth-Year Employment Outcomes for Completers of Apprenticeships Awarded by District Technical Centers (DTC)

Name	Total Completers	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	1757	\$45,128	87%	\$61,252	80%
Early Childhood Education	1282	\$22,968	72%	NA	NA
Plumbing Technology	727	\$47,404	86%	\$60,084	83%
Air Conditioning, Refrigeration and Heating Technology (PS)	722	\$50,372	88%	NA	NA
Pre-Apprenticeship	449	\$33,744	74%	NA	NA
Early Childhood Education	337	\$20,912	68%	\$24,580	64%
Structural Steel Work	280	\$52,672	81%	NA	NA
Carpentry	249	\$40,592	75%	NA	NA
Fire Fighter	196	\$58,648	97%	NA	NA
Machining	130	\$46,432	96%	\$73,660	93%

### A. Ten Most Popular Apprenticeships by Number of Completers

Name	Total Completers	Median First- Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth- Year Earnings	Percentage Found in Employment Data After 5 Years
Elevator Constructor Mechanic	78	\$88,660	91%	\$122,216	93%
Heavy Equipment Operation	85	\$81,188	87%	NA	NA
Millwright	104	\$77,364	89%	\$109,588	69%
Electrical Line Service and Repair	75	\$75,940	83%	NA	NA
Structural Steel Work	16	\$63,040	88%	\$60,380	88%
Industrial Machinery Maintenance	45	\$59,268	82%	NA	NA
Fire Fighter	196	\$58,648	97%	NA	NA
Commercial and Industrial Insulation	13	\$53,572	92%	\$87,480	85%
Structural Steel Work	280	\$52,672	81%	NA	NA
Commercial and Industrial Insulation	49	\$50,636	71%	NA	NA

### B. Top 10 Apprenticeships By Median First-Year Earnings

## **Continuing Education of Certificates/Diplomas/Apprenticeships Students**

**Figure 19** shows the percentage of completers found in the continuing education records one and five years after completion in apprenticeship, certificate, or diploma programs and were enrolled in some form of continuing education. Completers from FCS institutions are most likely to go on to continuing education, both one and five years after completion. Those completing applied technology diplomas or postsecondary vocational certificates are more likely to continue their education than those completing career certificates or apprenticeships.

# Figure 19. Percentage of Completers Enrolled in Continuing 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 2013–14 to 2017–18), 352,906 students were awarded an Associate degree or Advanced Technical Certificate from one (or more) of these institutions. This is the largest class (35%) of degrees/certificates issued in the State of Florida across the five cohort years. Below is a brief summary of each type of associate degree/certificate.

- Associate in Arts. The AA degree is a 2-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 2-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 2-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 <u>not</u> want to pursue education beyond an associate's level degree.
- Advanced Technical Certificates. 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 2** shows, the associate degree is the most commonly awarded postsecondary credential in Florida (approximately 35% of all certificates/degrees awarded). **Table 8** shows that among associate degrees, AA degrees are by far the most common. The AA degree is designed as a pathway to a bachelor's degree. Compared with the AA degree, far fewer students completed career- and technical-oriented programs of study. For example, 278,602 AA degrees were awarded during the study period, compared with 70,555 AS degrees and 2,514 AAS degrees. ATCs were quite rare in the completion data, with only 1,235 completers across the five cohort years.

Table 8. Employment Outcomes for Graduates with Associate Degrees andAdvanced Technical Certificates

Name	Total Completers	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	278,602	\$28,576	66%	\$40,700	75%
AS Degree	70,555	\$47,477	83%	\$55,648	83%
AAS Degree	2,514	\$35,104	77%	\$43,500	74%
ATC	1,235	\$44,393	83%	\$58,038	85%

### **Associate in Arts Degree Outcomes**

Within the different associate degrees, the most common in Florida is the AA with 278,602 degrees awarded during the five-year study period. The AA degree is designed for students who plan to enter a 4-year institution as a junior to complete a bachelor's degree program. The AA degree is awarded after completing 60 credit hours in a selected course of study, which includes a general education program consisting of 36 credit hours.

As shown in **Table 8**, the median first-year earnings of all graduates with AA degrees were slightly more than \$28,500. **Figure 20** displays the median first-year earnings of graduates with AA degrees from the 28 FCS colleges in Florida. Nearly \$7,800 separates the median first-year earnings of graduates from the college with the lowest (Lake-Sumter State College, \$26,468) and highest (St. Petersburg College, \$34,184) earning graduates with AA degrees. However, after five years, the difference between graduates from these two institutions is reduced to approximately \$4,000.

# Figure 20. Median First- and Fifth-Year Earnings of Graduates with AA Degrees, by College

Lake-Sumter State College Tallahassee Community College Eastern Florida State College College of Central Florida Pasco-Hernando State College Indian River State College Pensacola State College State College of Florida-Manatee-Sarasota Valencia College Daytona State College North Florida College Saint Johns River State College Santa Fe College Chipola College South Florida State College Seminole State College of Florida Northwest Florida State College Gulf Coast State College Palm Beach State College Florida Gateway College Florida SouthWestern State College Broward College Miami Dade College Polk State College Hillsborough Community College Florida State College at Jacksonville The College of the Florida Keys St Petersburg College



Although this report does not explain these differences, those graduates who completed AA degrees and had first-year earnings at or above the 90<sup>th</sup> percentile completed their degree at an institution in an area with a relatively high median income (Florida State College at Jacksonville, The College of the Florida Keys, and St Petersburg College). Graduates of schools in higher income areas who stay in those areas may have higher earnings.

**Figure 21** shows that employment outcomes also varied across institutions, ranging from 55% for AA graduates from Northwest Florida State College to 71% for AA graduates from Valencia College one year after completion.

## Figure 21. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with AA Degrees, by FCS Institution

Northwest Florida State College Chipola College Santa Fe College Pensacola State College Gulf Coast State College North Florida College Eastern Florida State College The College of the Florida Keys Tallahassee Community College Miami Dade College South Florida State College Florida Gateway College College of Central Florida Indian River State College Saint Johns River State College State College of Florida-Manatee-Sarasota Daytona State College Lake-Sumter State College Florida State College at Jacksonville Broward College Hillsborough Community College Pasco-Hernando State College Seminole State College of Florida St Petersburg College Polk State College Florida SouthWestern State College Palm Beach State College Valencia College



First-year Employment

Fifth-year Employment

## Associate in Science Degree Outcomes

After the AA degree, the next most common associate degree awarded in Florida is the AS degree. More than 70,000 AS degrees were awarded during the five-year study period, which are designed to prepare students who are planning to enter a specific occupation.

**Figure 22** shows that the median first- and fifth-year earnings of graduates with AS degrees varied substantially across Florida. At the high end, graduates with AS degrees from five colleges (Lake-Sumter State College, Florida Gateway College, Florida SouthWestern State College, North Florida College, and South Florida State College) had median first-year earnings greater than \$50,000, with graduates of South Florida State College earning more than \$56,000. In contrast, graduates with AS degrees from Valencia College had median first-year earnings of approximately \$40,000. The increase of fifth-year earnings from first-year earnings also varies considerably across institutions, with Miami Dade College and Palm Beach State College AS completers showing the largest increase, and North Florida College showing lower fifth-year median earnings.

## Figure 22. Median First- and Fifth-Year Earnings of Graduates with AS Degrees, by FCS Institution

Valencia College Tallahassee Community College Pensacola State College Eastern Florida State College Indian River State College Florida State College at Jacksonville Hillsborough Community College Northwest Florida State College St Petersburg College Daytona State College Palm Beach State College Gulf Coast State College College of Central Florida Miami Dade College Saint Johns River State College State College of Florida-Manatee-Sarasota Chipola College Santa Fe College Polk State College The College of the Florida Keys Pasco-Hernando State College Broward College Seminole State College of Florida Lake-Sumter State College Florida Gateway College Florida SouthWestern State College North Florida College South Florida State College



First-year Earnings Fifth-y

Fifth-year Earnings

Figure 23 shows the percentage of graduates with AS degrees found in the employment records by institution. North Florida graduates were more likely to be found one year after completion.

### Figure 23. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with AS Degrees, by FCS Institution



Fifth-year Employment

## **Associate in Applied Science Degree Outcomes**

More than 2,500 students in Florida earned AAS degrees from academic years 2013– 14 to 2017–18. The AAS degree focuses on training students for direct entry into a specialized occupation in the workplace and are designed for students who do not want to pursue education beyond an associate's level degree.

The median statewide first-year earnings of graduates with AAS degrees were \$35,104, which is approximately \$6,500 higher than those of graduates with AA degrees (\$28,576) but more than \$12,000 lower than those with AS degrees (\$47,477). Figure 24 shows the median first- and fifth-year earnings for AAS graduates, by institution. The range in median first-year earnings among graduates with AAS degrees varied substantially, from approximately \$26,140 (Gulf Coast State College) to more than \$47,000 (State College of Florida-Manatee-Sarasota).

Graduates with AAS degrees from three colleges (Gulf Coast State College, Lake-Sumter State College, and Pasco-Hernando State College) had median first-year earnings of less than \$30,000. In contrast, the median first-year earnings of graduates with AAS degrees from four colleges (Polk State College, Palm Beach State College, Hillsborough Community College, and State College of Florida-Manatee-Sarasota) were more than \$40,000 (**Figure 24**).

**Figure 25** shows the percentage of completers found in the employment records oneand five-years following completion of their AAS degree. Completers from Seminole State College of Florida were most likely to be found in the employment data and completers from Pasco-Hernando State College were least likely to be found.

# Figure 24. Median First- and Fifth-Year Earnings of Completers of AAS Degrees, by FCS Institution

Gulf Coast State College Lake-Sumter State College Pasco-Hernando State College Valencia College Pensacola State College Tallahassee Community College Santa Fe College Indian River State College Seminole State College of Florida Daytona State College Northwest Florida State College South Florida State College Florida State College at Jacksonville The College of the Florida Keys Broward College Eastern Florida State College Miami Dade College Polk State College Palm Beach State College Hillsborough Community College State College of Florida-Manatee-Sarasota



## Figure 25. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of AAS Degrees, by FCS Institution

Pasco-Hernando State College Northwest Florida State College Pensacola State College Florida State College at Jacksonville Palm Beach State College The College of the Florida Keys Valencia College Santa Fe College Indian River State College Daytona State College State College of Florida-Manatee-Sarasota Eastern Florida State College Gulf Coast State College Lake-Sumter State College Hillsborough Community College Tallahassee Community College South Florida State College Broward College Polk State College Miami Dade College Seminole State College of Florida



## **Advanced Technical Certificates Outcomes**

The highest median first-year earnings (\$44,393) were achieved by the 1,235 completers of ATCs, which are generally designed for individuals who have already completed a 2-year AS or AAS degree and are seeking advanced, specialized preparation in a particular career field to supplement their degree.

Advanced Technical Certificates (ATC) are offered at 14 of the 28 FCS institutions. First-year earnings for graduates at these colleges are shown in **Figure 26**. Completers from Valencia College had the highest first-year earnings, at approximately \$53,000; graduates from the next highest institution, Santa Fe College (\$51,032), also showed the steepest increase between first- and fifth-year earnings (ending up at more than \$71,000). However, it should be noted that fifth-year earnings data were unavailable for many of the FCS institutions.

# Figure 26. Median First- and Fifth-Year Earnings of Completers of ATC, by FCS Institution



Completers of ATC appeared in the employment records at a high rate, from nearly 68% for Pensacola State College to 95% for Eastern Florida State College graduates (**Figure 27**). The data indicates that graduates with this degree were generally able to find employment within a year post-completion, and this employment was within the limits of the employment records (i.e., not self-employed, within Florida's employment records for all five years, employed within the Wage Record Interchange System 2 (WRIS2) consortium of states in cohort years 2013-14 or 2014-15, and within the State Wage Interchange System (SWIS) consortium of states in cohort years 2016-17 and 2017-18.

## Figure 27. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of ATC



## What Students Study Matters

Graduates with AA degrees are classified into a single program of study (liberal arts and sciences/liberal studies<sup>7</sup>). However, AAS and AS degrees are offered in different programs of study. **Table 9** shows the first- and fifth-year outcomes for graduates of the most popular AS degrees. Registered nursing/registered nurse AS completers outnumber completers of other programs by more than a factor of seven. Registered

<sup>&</sup>lt;sup>7</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.

nursing also is one of the highest paying of the common AS degrees, with median firstyear earnings of more than \$54,000. However, completers of physician assistant AS programs earn nearly twice this amount, with median first-year earnings of \$93,836.<sup>8</sup> Along with emergency medical technology/technician (EMT paramedic) and medical radiologic technology/science-radiation therapist, completers of registered nursing/registered nurse AS degrees also were highly likely to be found in employment records one year after completion. A graduate's program of study may also play a large role in how likely a student is to find employment after completion, although this report cannot speak to whether the employment was directly related to the AS degree.

## Table 9. First- and Fifth-Year Employment Outcomes for Graduates with Popular AS Degrees

Program	Total Completers	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	23,399	\$54,180	90%	\$63,384	90%
Business Administration and Management	3,298	\$34,552	74%	\$43,148	74%
Criminal Justice/Law Enforcement Administration	3,160	\$35,280	80%	\$44,564	80%
Legal Assistant/Paralegal	2,603	\$33,276	78%	\$42,112	78%
Emergency Medical Technology/Technician (EMT Paramedic)	2,254	\$57,824	95%	\$73,488	95%
Medical Radiologic Technology/Science - Radiation Therapist	2,138	\$44,000	90%	\$52,284	90%
Information Technology	1,822	\$35,952	72%	\$46,004	72%
Dental Hygiene/Hygienist	1,665	\$46,692	84%	\$53,744	84%
Physical Therapy Technician/Assistant	1,616	\$42,832	81%	\$52,960	81%
Early Childhood Education and Teaching	1,460	\$26,152	72%	\$31,288	72%

### A. Ten Most Popular by Number of Graduates

<sup>&</sup>lt;sup>8</sup> This AS degree is only offered at Miami Dade College and is part of its Bachelor of Applied Science (BAS) degree. Students are initially admitted into the AS program, but once the AS program has been completed students are transitioned into the BAS program. The AS and BAS are a joint program. Neither the AS nor BAS degree for Physician Assistant are offered separately. Therefore, these students have completed both their associate and bachelor's degrees.

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Physician Assistant <sup>9</sup>	237	\$93,836	79%	\$110,304	79%
Fire Prevention and Safety Technology/Technician	743	\$73,092	90%	\$88,384	92%
EMT Paramedic	2,254	\$57,824	95%	\$73,488	91%
Cardiovascular Technology/ Technologist	394	\$56,376	91%	\$63,428	88%
Operations Management and Supervision	240	\$56,200	59%	\$67,240	48%
Registered Nursing/Registered Nurse	23,399	\$54,180	90%	\$63,384	90%
Information Technology Project Management	56	\$53,968	82%	\$51,076	62%
Clinical/Medical Laboratory Technician	470	\$51,128	87%	\$59,184	90%
Management Information Systems	16	\$50,488	63%	NA	NA
Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician	512	\$49,608	83%	\$56,964	89%

### B. Top 10 By Median First-Year Earnings

**Table 10** shows a wide range in median first- and fifth-year earnings among graduates with AAS degrees in the most popular fields of study. Median first-year earnings ranged from approximately \$27,952 (computer graphics) to \$41,156 (diesel mechanics technology/technician). Across the top 10 AAS programs, there is a large variation in median first-year wages at \$88,976 for the top program (fire prevention and safety technology/technician) to \$40,896 for the lowest of the 10 (computer engineering technology/technician). The program of study is by far the most important determiner of first-year earnings for completers of AAS degrees, as opposed to institution.

<sup>&</sup>lt;sup>9</sup> This AS degree is only offered at Miami Dade College and is part of its Bachelor of Applied Science (BAS) degree. Students are initially admitted into the AS program, but once the AS program has been completed students are transitioned into the BAS program. The AS and BAS are a joint program. Neither the AS nor BAS degree for Physician Assistant are offered separately. Therefore, these students have completed both their associate and bachelor's degrees.

# Table 10. First- and Fifth-Year Employment Outcomes for Graduates with PopularAAS Degrees

### A. Ten Most Popular Programs by Number of Graduates

Program	Total Completers	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	271	\$31,716	81%	\$45,804	86%
Business Administration and Management	266	\$35,036	78%	\$42,396	79%
Office Management and Supervision	172	\$31,076	69%	\$32,416	69%
Aviation/Airway Management and Operations	171	\$32,420	84%	\$53,268	59%
Automobile/Automotive Mechanics Technology/Technician	158	\$35,900	91%	\$42,300	82%
Criminal Justice/Law Enforcement Administration	126	\$40,332	78%	\$51,016	74%
Medical Radiologic Technology/Science – Radiation Therapist	99	\$39,644	91%	\$48,324	87%
Electrical, Electronic and Communications Engineering Technology/Technician	80	\$35,452	70%	\$49,444	75%
Computer Graphics	76	\$27,952	66%	\$30,740	86%
Diesel Mechanics Technology/Technician	66	\$41,156	67%	NA	NA

## B. Top 10 Programs By Median First-Year Earnings

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Fire Prevention and Safety Technology/Technician	18	\$88,976	100%	\$102,192	100%
Electrical and Power Transmission Installation/Installer	13	\$62,472	92%	NA	NA
Emergency Medical Technology/Technician (EMT Paramedic)	47	\$56,376	91%	\$66,016	78%

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Operations Management and Supervision	54	\$52,980	69%	\$60,908	61%
Nuclear Medical Technology/Technologist	23	\$49,028	87%	\$64,816	81%
Small Business Administration/Management	13	\$48,932	77%	NA	NA
Biomedical Technology/Technician	18	\$43,812	78%	\$46,056	69%
Computer Systems Networking and Telecommunications	30	\$41,528	70%	\$56,200	68%
Diesel Mechanics Technology/Technician	66	\$41,156	67%	NA	NA
Computer Engineering Technology/Technician	16	\$40,896	69%	NA	NA

Tremendous variation also exists in the rate of completers being found in the employment records, with computer graphics completers at about 66% compared with fire prevention and safety technology/technician completers at 100%. Clearly, the program of study plays a large role in whether students enter the workforce immediately after completing their degree. It is important to remember, however, that completers may not appear in the employment records for multiple reasons, including self-employment, continuation of education, employment outside the Wage Record Interchange System 2 (WRIS2) consortium of states in cohort years 2013-14 and 2014-15, employment outside the State Wage Interchange System (SWIS) consortium of states in cohort years 2016-17 and 2017-18, or were not employed in the state of Florida in the 2015-16 cohort year.

Advanced Technical Certificates (ATC) are offered in only 13 programs, so **Table 11** shows all programs rather than the most popular or highest earning. First-year earnings varied considerably, from \$31,464 for completers of transportation/mobility management to more than \$58,000 for completers of registered nursing/registered nurse.

Program	Total Completers	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	115	\$38,832	84%	NA	NA
Child Care and Support Services Management	23	\$51,836	96%	NA	NA
Computer and Information Systems Security/Information Assurance	63	\$40,768	90%	NA	NA
Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	20	\$44,752	90%	NA	NA
Environmental Science	47	\$37,140	72%	NA	NA
Funeral Service and Mortuary Science	70	\$44,596	81%	\$58,908	83%
Health/Health Care Administration/Management	195	\$36,160	77%	NA	NA
Information Technology	36	\$46,216	78%	NA	NA
Legal Assistant/Paralegal	164	\$39,320	82%	\$48,092	83%
Medical Radiologic Technology/Science - Radiation Therapist	392	\$52,672	91%	\$59,888	88%
Registered Nursing/Registered Nurse	35	\$58,532	74%	\$68,372	87%
Respiratory Care Therapy/Therapist	39	\$45,616	87%	NA	NA
Transportation/Mobility Management	28	\$31,464	82%	NA	NA

## Table 11. First- and Fifth-Year Employment Outcomes for Completers of ATC
#### **Continuing Education of Associate Degree Students**

**Figure 28** shows the percentage of associates degree completers found in the continuing education data one- and five-years after completion. As expected, completers of AA degrees were most likely to be found enrolled in continuing education one year after completion (approximately 70%). AS degree completers were somewhat more likely to be enrolled (34%) than AAS degree completers (24%), who were in turn somewhat more likely than completers of ATC (20%). Five years after completion, continuing education enrollment rates were less than 20% for all categories of associate degrees/ATC.

## Figure 28. Percentage of Associate Degrees and ATC Completers Enrolled in Continuing Education After 1 and 5 Years



### **Bachelor's Degrees**

The bachelor's degree is a 4-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 second most common degree awarded in Florida. According to data from the U.S. Department of Labor's Bureau of Labor Statistics, graduates with bachelor's degrees nationwide earn, on average, just over 67% per year more than high school graduates, and graduates with bachelor's degrees are far less likely to be unemployed.<sup>10</sup>

However, the national data mask differences in the labor market outcomes among graduates with bachelor's degrees. As evident in the figures in this section, the return on investment among graduates from universities varies widely by institution and by degree choice. In short, a bachelor's degree is not sufficient on its own to determine labor market outcomes; the specific college or university and field of study have shown to play a more significant role. These choices have consequences for graduates when they enter the labor market. The data in this report and on <u>Florida's Launch My Career</u> website enable readers to delve deeper into this variation.

Bachelor's degrees are awarded by institutions in the FCS and the SUS. However, bachelor's degrees are awarded only in a limited number of undergraduate majors at FCS institutions. During the five-year period covered within this report (academic years 2013–14 to 2017–18), 341,824 students completed a bachelor's degree at one (or more) of these institutions, which is 34% of all degrees or certificates issued across the five cohort years.

#### Bachelor's Degree Outcomes (Florida College System)

In many states, including Florida, 2-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 2-year colleges.

During the five-year study period, FCS institutions awarded 36,354 bachelor's degrees, which is approximately 11% of all bachelor's degrees granted by the FCS and SUS. **Table 12** shows the differences in employment outcomes for completers of bachelor's degrees from the two systems. At both one-year post-completion and five-year post-completion, completers who received their bachelor's degree from an FCS institution tended to have higher earnings and were found in the employment records at a higher rate. However, it's worth noting that graduates from FCS institutions tend to be older,

<sup>&</sup>lt;sup>10</sup> See https://www.bls.gov/careeroutlook/2020/data-on-display/education-pays.htm.

which means they are more likely to enter the workforce with prior professional experience as compared to graduates from SUS institutions. This may account for some of the earning differentials between FCS and SUS bachelor's degree. In addition, the bachelor's degrees offered at FCS institutions tend to be concentrated in fields that have higher wages.

Name	Total Completers	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)	36,354	\$45,326	84%	\$52,042	82%
Bachelor's Degree (SUS)	305,470	\$38,063	71%	\$50,874	74%
Total	341,824	-	-	-	-

Table 12. Employment Outcomes for	Graduates with Bachelor's Degrees
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**Figure 29** displays the median first- and fifth-year earnings of graduates with bachelor's degrees from FCS institutions. Variation across institutions is wide, ranging from \$37,472 for Eastern Florida State College to \$60,464 for Valencia College graduates. The likelihood of being found in the employment records was fairly high across all bachelor's graduates from FCS institutions, ranging from 75% for Pensacola State College to nearly 90% for Valencia College (**Figure 30**).

## Figure 29. Median First- and Fifth-Year Earnings of Graduates with Bachelor's Degrees, by FCS Institution

Eastern Florida State College Lake-Sumter State College Indian River State College Chipola College Pensacola State College Saint Johns River State College South Florida State College Northwest Florida State College College of Central Florida Daytona State College Palm Beach State College Seminole State College of Florida Florida State College at Jacksonville Pasco-Hernando State College Polk State College Santa Fe College Florida SouthWestern State College Broward College Miami Dade College St Petersburg College Gulf Coast State College State College of Florida-Manatee-Sarasota Florida Gateway College Valencia College



First-year Earnings

Fifth-year Earnings

### Figure 30. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Bachelor's Degrees, by FCS Institution

Pensacola State College Northwest Florida State College Eastern Florida State College Lake-Sumter State College Daytona State College Florida State College at Jacksonville Palm Beach State College Indian River State College Santa Fe College Seminole State College of Florida College of Central Florida Gulf Coast State College St Petersburg College Chipola College Miami Dade College South Florida State College Saint Johns River State College State College of Florida-Manatee-Sarasota Broward College Pasco-Hernando State College Florida SouthWestern State College Polk State College Florida Gateway College Valencia College



#### **Bachelor's Degree Outcomes (State University System)**

All 12 of the public universities in Florida that make up the State University System of Florida (SUS) award bachelor's degrees. During the five-year study period, SUS institutions in the state of Florida awarded 305,470 bachelor's degrees. This represents nearly 89% of all bachelor's degrees awarded during this timeframe. **Figure 31** shows the median first-year earnings of graduates with bachelor's degrees by university. Median first-year earnings of graduates varied substantially, ranging from approximately \$25,700 (New College of Florida) to nearly \$56,000 (Florida Polytechnic University).<sup>11</sup> Such differences in the median first-year earnings between universities can potentially be attributed to the types of programs offered at each university, such as Florida Polytechnic University that focuses on STEM disciplines.



### Figure 31. Median First- and Fifth-Year Earnings of Graduates with Bachelor's Degrees, by SUS Institution

<sup>&</sup>lt;sup>11</sup> Florida Polytechnic University is composed of programs previously offered at the Lakeland campus of the University of South Florida.

The likelihood of appearing in the employment records varied across Florida's universities (**Figure 32**). Graduates from the University of North Florida were most likely to appear within the records one year after completion (78%), while graduates from New College of Florida were least likely (53%). Students who were not found in the employment records may have enrolled in graduate studies following the completion of their bachelor's degree, may be employed outside the WRIS2 Consortium states in cohort years 2013-14 and 2014-15, employed outside the State Wage Interchange System (SWIS) consortium of states in cohort years 2016-17 and 2017-18, or were not employed in the state of Florida in the 2015-16 cohort year.

## Figure 32. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Bachelor's Degrees, by SUS Institution

New College of Florida University of Florida Florida State University University of West Florida Florida International University University of South Florida Florida A&M University University of Central Florida Florida Atlantic University Florida Polytechnic University Florida Gulf Coast University University of North Florida



#### What Students Study Matters

As noted in **Table 12**, graduates with bachelor's degrees from FCS institutions tend to have higher first-year earnings than those who complete their degree at an SUS institution. Bachelor's degrees are awarded only in a limited number of majors at FCS institutions (50 majors in the current dataset, compared with 222 for SUS institutions), and these areas of study tend to be relatively high paying. Among the 10 most popular FCS bachelor's degrees (**Table 13**), the highest first-year earnings were associated with a registered nursing/registered nurse degree (\$66,616) and the lowest with a human services degree (\$31,864). Ninety-three percent of the registered nursing/registered nurse completers were found in the employment records one year after completion. Among the highest paid FCS Bachelor's degrees, the top ten earnings ranged from \$90,256 (health services/allied health/health sciences<sup>12</sup>) to \$49,952 (clinical laboratory science/medical technology/technologist).

Median first-year earnings of FCS and SUS graduates can be compared by reviewing the outcomes shown in **Table 13** and **Table 14**. For example, when you compare the earnings of graduates with the registered nursing/registered nurse degree, FCS graduates had higher median first-year earnings (\$66,616) compared to SUS graduates with the same degree (\$58,368), a difference of \$8,248. The reason for this difference may be that graduates from FCS institutions tend to be older, which means they are more likely to have prior professional work experience as compared to graduates from SUS institutions. In addition, the percentage of graduates found within the employment records for FCS registered nursing/registered nurse graduates was also higher than SUS graduates (93% compared to 88%).

Among the most popular SUS degrees, the highest salary was \$58,368 for registered nursing/registered nurse and the lowest was \$27,844 for biology/biological sciences. Among the 10 highest paid SUS bachelor's degrees, the highest first-year earnings were associated with fire science/firefighting degree (\$84,248) and the lowest of the top 10 was nuclear engineering completers (\$61,752).

Across both systems, the subject area of a student's degree is far more important to eventual earnings than is the institution attended. The probability of being found in the employment records also ranged lower for SUS completers (56% to 88%) than for FCS completers (81% to 93%) in the most popular programs. This is consistent with a different path to employment for SUS completers, which may involve graduate study: as

<sup>&</sup>lt;sup>12</sup> This degree is only offered at Miami Dade College and is part of its Bachelor of Applied Science (BAS) degree. Students are initially admitted into the AS program, but once the AS program has been completed students are transitioned into the BAS program. The AS and BAS are a joint program. Neither the AS nor BAS degree for Physician Assistant are offered separately. Therefore, these students have completed both their associate and bachelor's degrees.

we will discuss in the next section, graduates with SUS bachelor's degrees are more likely to enroll in continuing education.

## Table 13. First- and Fifth-Year Employment Outcomes for Graduates with PopularFCS Bachelor's Degrees

#### A. Ten Most Popular FCS Bachelor's Degrees by Number of Graduates

Program	Total Completers	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	12,800	\$40,000	81%	\$49,168	79%
Registered Nursing/Registered Nurse	7,462	\$66,616	93%	\$78,864	89%
Homeland Security, Law Enforcement, Firefighting and Related Protective Services	1,481	\$40,696	82%	\$51,040	79%
Business Administration and Management	1,406	\$40,152	83%	\$51,760	78%
Information Technology	1,206	\$47,472	82%	\$63,056	83%
Computer/Information Technology Services Administration and Management	1,132	\$47,452	82%	\$63,564	82%
Elementary Education and Teaching	1,122	\$40,000	89%	\$42,908	83%
Special Education and Teaching	983	\$42,828	92%	\$46,524	89%
Early Childhood Education and Teaching	884	\$38,780	84%	\$42,700	80%
Human Services	643	\$31,864	80%	\$41,548	74%

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Health Services/Allied Health/Health Sciences	117	\$90,256	87%	NA	NA
Respiratory Care Therapy/Therapist	95	\$68,336	97%	NA	NA
Registered Nursing/Registered Nurse	7,462	\$66,616	93%	\$78,864	89%
Construction Engineering Technology/Technician	75	\$61,560	80%	\$79,620	81%
Medical Radiologic Technology/Science - Radiation Therapist	134	\$60,760	87%	NA	NA
Aeronautics/Aviation/Aerospace Science and Technology	22	\$56,876	82%	NA	NA
Dental Hygiene/Hygienist	218	\$55,640	84%	\$54,628	84%
Electrical, Electronic and Communications Engineering Technology/Technician	151	\$54,912	81%	\$71,368	92%
Banking and Financial Support Services	30	\$51,632	80%	NA	NA
Clinical Laboratory Science/Medical Technology/Technologist	50	\$49,952	92%	NA	NA

#### B. Top 10 FCS Bachelor's Degrees By Median First-Year Earnings

## Table 14. First- and Fifth-Year Employment Outcomes for Graduates with PopularSUS Bachelor's Degrees

#### A. Ten Most Popular SUS Bachelor's Degrees by Number of Graduates

Program	Total Completers	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	25,484	\$29,948	67%	\$44,308	72%
Biology/Biological Sciences	14,168	\$27,844	60%	\$49,840	61%
Registered Nursing/Registered Nurse	13,419	\$58,368	88%	\$70,256	83%
Finance	12,958	\$45,152	72%	\$68,620	81%
Criminal Justice/Safety Studies	12,000	\$32,360	74%	\$46,812	76%
Business Administration and Management	10,617	\$40,972	76%	\$57,704	80%
Marketing/Marketing Management	10,084	\$39,740	74%	\$58,420	79%

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Health Services/Allied Health/Health Sciences	9,706	\$28,288	71%	\$51,672	75%
Accounting	9,510	\$45,508	73%	\$67,176	85%
Political Science and Government	8,826	\$33,704	56%	\$53,396	73%

#### B. Top 10 SUS Bachelor's Degrees By Median First-Year Earnings

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Fire Science/Fire Fighting	89	\$84,248	91%	\$83,052	83%
Music Theory and Composition	21	\$79,168	29%	NA	NA
Laser and Optical Engineering	33	\$70,896	76%	NA	NA
Materials Engineering	196	\$68,828	44%	\$80,840	59%
Systems Engineering	629	\$66,472	65%	\$91,204	87%
Computer Engineering	1,862	\$64,300	72%	\$87,372	84%
Electrical and Electronics Engineering	3,140	\$63,424	70%	\$80,892	75%
Chemical Engineering	1,343	\$63,252	62%	\$83,144	74%
Aerospace, Aeronautical and Astronautical/Space Engineering	915	\$62,684	65%	\$81,216	72%
Nuclear Engineering	118	\$61,752	43%	\$82,556	50%

#### **Continuing Education of Bachelor's Degree Students**

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 will continue their education in a graduate program. **Figure 33** indicates that this is more common for graduates from SUS institutions (16%) than FCS institutions (9%).



### Figure 33. Percentage of Bachelor's Degree Graduates Enrolled in Continuing Education After 1 and 5 Years

**Table 15** shows the wide variation in the rate of continuing education enrollment across FCS colleges, from 4% for Saint Johns River State College to 13% for St Petersburg College. Statewide, about 16% of graduates with SUS bachelor's degrees continue their education in Florida one year after graduation.<sup>13</sup>

Table 15. Percentage of Graduates with Bachelor's Degrees Who Were Enrolled in
Continuing Education in Florida After One Year, by FCS Institution

Institution	Percentage Enrolled in Continuing Education
Saint Johns River State College	4%
Gulf Coast State College	4%
Chipola College	5%
College of Central Florida	6%
Pensacola State College	7%
South Florida State College	7%
Florida SouthWestern State College	7%
Northwest Florida State College	7%
Palm Beach State College	7%
Daytona State College	8%
Seminole State College of Florida	8%
State College of Florida-Manatee-Sarasota	8%
Pasco-Hernando State College	8%
Santa Fe College	8%
Florida State College at Jacksonville	8%
Broward College	9%
Indian River State College	9%
Miami Dade College	9%
Polk State College	10%
Valencia College	11%
Eastern Florida State College	13%
Florida Gateway College	13%
Lake-Sumter State College	13%
St Petersburg College	13%

<sup>&</sup>lt;sup>13</sup> This can be full time or part time. Data show only whether students were enrolled, not whether they completed an advanced degree or certificate. These enrollment records are for students enrolled within Florida and do not include students who may be studying in other states.

**Table 16** shows that eleven of the 12 SUS universities have rates of continuing education that are near or exceed the highest level seen for FCS institutions. At the high end, 20% of graduates with bachelor's degrees from the University of Florida were enrolled in continuing education. In contrast, only 6% of graduates with bachelor's degrees from New College of Florida were enrolled in continuing education within the state (which may be indicative of students pursuing education opportunities outside of Florida).

Institution	Percentage Enrolled in Continuing Education
New College of Florida	6%
University of North Florida	12%
Florida Gulf Coast University	13%
Florida Polytechnic University	13%
University of Central Florida	13%
University of South Florida	14%
University of West Florida	15%
Florida A&M University	15%
Florida Atlantic University	16%
Florida State University	17%
Florida International University	18%
University of Florida	20%

## Table 16. Percentage of Graduates with Bachelor's Degrees Who Were Enrolled in Continuing Education in Florida After One Year, by SUS Institution

### **Master's Degrees**

The master's degree is a one- or two-year degree that is typically 30–45 credit hours beyond the bachelor's level, where 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 educational system, master's degrees are only awarded by SUS institutions.

Public higher education institutions in Florida awarded 82,574 master's degrees during the five-year study (8% of all degrees/certificates issued between 2013-14 and 2017-18). Nearly 73% of these graduates were found in the matched student record/UI wage database and WRIS2/SWIS dataset used for this report, which did not include the 2015-16 cohort year.

#### **Master's Degree Outcomes**

Similar to the first-year earnings of graduates with bachelor's degrees, the first-year earnings of graduates with master's degrees varied considerably by area of study and institution. **Figure 34** shows that the median first-year earnings of graduates with master's degrees differ across institutions. Graduates with master's degrees from Florida A&M University had median first-year earnings of approximately \$41,000. In contrast, graduates with master's degrees from the New College of Florida had median first-year earnings of nearly \$84,000.

# Figure 34. Median First- and Fifth-Year Earnings of Graduates with Master's Degrees, by University



## Figure 35. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Master's Degrees



#### What Students Study Matters

**Table 17** shows the first- and fifth-year outcomes for completers of the most popular and highest-earning master's degrees. Within the most popular programs business administration and management was by far the most popular program, with a first-year median salary of \$68,404; while social work had the lowest first-year median salary of \$40,316. Two medical programs, dental clinical sciences (\$171,880) and nurse anesthetist (\$152,992) had the highest first-year median salaries.

### Table 17. First- and Fifth-Year Employment Outcomes for Completers of PopularMaster's Degrees

Program	Total Completers	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	9,874	\$68,404	78%	\$92,896	79%
Registered Nursing/Registered Nurse	3,394	\$84,368	89%	\$105,168	83%
Accounting	3,272	\$56,888	85%	\$82,448	84%
Social Work	2,912	\$40,316	81%	\$51,980	76%
Educational Leadership and Administration	2,870	\$51,192	91%	\$63,772	88%
Public Health	2,118	\$46,388	66%	\$62,460	67%
Curriculum and Instruction	1,912	\$47,304	78%	\$52,204	78%
Business/Commerce	1,762	\$67,360	79%	\$91,264	81%
Public Administration	1,539	\$49,204	78%	\$61,108	74%
Computer and Information Sciences	1,538	\$82,932	65%	\$103,624	77%

#### A. Ten Most Popular Master's Programs by Number of Graduates

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Dental Clinical Sciences	70	\$171,880	70%	\$271,500 <sup>14</sup>	79%
Nurse Anesthetist	186	\$152,992	84%	NA	NA
Psychiatric/Mental Health Nurse/Nursing	48	\$115,384	92%	NA	NA
International Construction Management	18	\$103,392	78%	NA	NA
Adult Health Nurse/Nursing	74	\$96,352	82%	NA	NA
Fire Science/Fire Fighting	11	\$96,264	100%	NA	NA
Physician Assistant	336	\$93,800	87%	\$123,616	91%
Family Practice Nurse/Nursing	215	\$92,096	84%	NA	NA
Engineering/Industrial Management	323	\$90,316	82%	\$120,688	79%
Insurance	62	\$89,908	66%	NA	NA

#### B. Top 10 Master's Programs By Median First-Year Earnings

**Figure 36** compares the earnings between master's and bachelor's degrees for the most common bachelor's degrees. Graduates with master's degrees were rewarded in the labor market. For area of study, the additional earnings gained for having a master's degree ranged from \$5,680 (political science and government) to over \$27,000 (business administration and management, general). Clearly, the extent of the benefit of earning a master's degree is associated with the area of study. The relative value of a master's degree to a bachelor's degree also differed by institution (see **Figure 37**). Differences ranged from approximately \$9,500 (Florida A&M University) to more than \$58,000 (New College of Florida).<sup>15</sup> These differences, to some degree, reflect differences in local labor markets and confirm (a) the value of the master's degree and (b) that great differences can exist in the added value of the master's degree. Of note, earnings outcomes reported at the university level reflect the mix of majors within each degree level. Data from universities that graduate more students in higher-paying programs, such as business or nursing, highlight higher earnings versus universities that graduate more students in lower.

<sup>&</sup>lt;sup>14</sup> There were only 14 graduates in the 5-year dataset, with all completers graduating from the University of Florida. The lowest 5-year earning was \$95,912 while the highest was \$1,480,660. The small number of graduates along with high earnings skewed the 5-year median earnings significantly upward.

<sup>&</sup>lt;sup>15</sup> New College only offers 1 Master's degree (Data Science), which likely pays more than the many liberal arts degrees at the bachelor's level.

## Figure 36. Median First-Year Earnings of Graduates with Bachelor's and Master's Degrees for Popular Bachelor's Degrees



Bachelor's First-Year Earnings Master's First-Year Earnings

# Figure 37. Median First-Year Earnings for Graduates with Bachelor's and Master's Degrees, by SUS Institution



Bachelor's First-Year Earnings Master's First-Year Earnings One unusual case is posed by Florida Polytechnic University, where completers who earned a master's degree had a slightly lower median salary than those who earned a bachelor's degree. It should be noted that the median master's degree earnings for this institution are based on only 27 completers; these results will likely change in the future as more data for completers of master's degrees from this institution become available.

In general, some of these results can likely be attributed to the fact that graduates with master's degrees are older and may already have careers, so their earnings would be higher. Further work is needed to separate the added value of the skills learned when attaining a master's degree from the characteristics of the graduates who earn them. But as the data show, graduates with master's degrees generally earn more, often far more, than graduates with only bachelor's degrees.

### **Specialist's Degrees**

The specialist's degree (EdS) is above the master's degree but below the doctorate degree and is a one or two-year degree typically 30 to 36 credit hours beyond the master's level. The specialist's 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's degrees are only awarded by SUS institutions. During the five-year period, Florida's universities awarded 1,176 specialist's degrees (less than 1% of all degrees/certifications issued across the five cohort years).

#### **Specialist's Degree Outcomes**

**Figure 38** displays the median first-year earnings of graduates with specialist's degrees by university. Here again, median first-year earnings varied considerably, ranging from less than \$47,500 (University of Florida) to more than \$64,000 (University of West Florida). Graduates tended to experience greater earnings if they attended universities in larger metropolitan areas. Specialist's degree completers from Florida Atlantic University also show the largest increase from first- to fifth-year earnings.



# Figure 38, Median First- and Fifth-Year Earnings of Graduates with Specialist Degrees, by SUS Institution

Florida Atlantic University completers are most likely to be found in the employment records, whereas fewer than 71% of University of South Florida graduates are (**Figure 39**).



# Figure 39. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Specialist Degrees, by SUS Institution

#### What Students Study Matters

Specialist's degrees are offered in a limited set of programs, so employment outcomes for all programs are shown in **Table 18**. Median first-year earnings varied widely: more than \$29,000 separated the lowest median first-year earnings (marriage and family therapy/counseling) from the highest median first-year earnings (curriculum and instruction). Clearly, choosing the right specialty for this type of degree can have a significant impact on earnings.

# Table 18. First- and Fifth-Year Employment Outcomes for Graduates withSpecialist Degrees, by Program

Program	Total Completers	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	396	\$61,304	76%	\$55,420 <sup>16</sup>	72%
Educational Leadership and Administration	244	\$59,792	96%	\$74,100	97%
Library and Information Science	12	\$59,456	58%	NA	NA
Special Education and Teaching	16	\$57,100	81%	NA	NA
School Psychology	142	\$55,040	85%	\$60,984	88%
Education	11	\$49,892	82%	NA	NA
Counselor Education/School Counseling and Guidance Services	219	\$45,444	79%	\$50,292	81%
Mental Health Counseling/Counselor	89	\$41,000	75%	\$61,540	67%
Marriage and Family Therapy/Counseling	42	\$32,144	62%	NA	NA

<sup>&</sup>lt;sup>16</sup> There were 47 people represented in the 5-year median wage calculation.

### **Doctorate Degrees**

The doctorate degree is the highest degree awarded in the education system. Less than 4% of the U.S. population (25 or older) has a doctorate-level degree.<sup>17</sup> During the 5-year period covered within this report (academic years 2013–14 to 2017–18), 24,366 students completed a doctorate degree at one of ten Florida SUS institutions (2.4% of all degrees/certificates issued between 2013 and 2018).

The doctorate degree, at least in this report, has been divided into three categories: 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 3-year course of study. Several degrees are underneath law, which 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 4 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.

<sup>&</sup>lt;sup>17</sup> US Census, Educational Attainment in the United States: 2018, Table 2. Educational Attainment of the Population 25 Years and Over, by Selected Characteristics: 2018, <u>https://www.census.gov/data/tables/2018/demo/education-attainment/cps-detailed-tables.html</u>

#### **Doctorate Degree (Law) Outcomes**

Four universities within the Florida public postsecondary educational system offer law degrees. The employment outcomes for these institutions is shown in **Table 19**. Graduates of Florida A&M University Law School had median first-year earnings of approximately \$42,000, which is about \$9,000 less than graduates from Florida International University and about \$5,000 less than graduates from Florida State University. Law school graduates from the University of Florida had the highest median first-year earnings at \$58,360.

# Table 19. First- and Fifth-Year Employment Outcomes for Graduates withDoctorate Law Degrees

Institution	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
University of Florida	1,577	\$58,360	75%	\$100,760	87%
Florida State University	1,121	\$47,628	71%	\$75,088	81%
Florida International University	754	\$51,396	71%	\$78,460	76%
Florida A&M University	676	\$42,136	67%	\$66,032	78%

#### **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). The employment outcome for these institutions are shown in **Table 20**. Graduates with dentistry and pharmacy degrees have highest first-year earnings (more than \$100,000 for dentistry and pharmacy degree graduates from the University of Florida). Variation in first-year median salaries is quite low for graduates with degrees in medicine. At all four universities offering this doctorate, first-year salaries are between \$51,500 and \$53,300. But as noted previously, this salary range is likely the result of the structure of the profession, whereby the majority of medical school graduates first serve as interns/residents, which is an essential step to gaining a license to practice medicine unsupervised. Such internship/residency requirements are not present for new dentists, pharmacists, or veterinarians.

Institution	Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
University of Florida	Dentistry	426	\$107,788	68%	\$172,224	84%
University of Florida	Pharmacy	1,856	\$100,892	78%	\$127,224	87%
Florida A&M University	Pharmacy	752	\$87,768	71%	\$121,572	89%
University of South Florida	Pharmacy	304	\$87,528	80%	NA	NA
University of Florida	Veterinary Medicine, DVM	536	\$69,892	76%	\$88,304	80%
Florida International University	Medicine	459	\$53,264	57%	\$76,536	84%
Florida State University	Medicine	574	\$53,260	68%	\$125,968	77%
Florida Atlantic University	Medicine	241	\$53,196	64%	NA	NA
University of Florida	Medicine	664	\$52,620	67%	\$91,584	85%
University of Central Florida	Medicine	454	\$52,116	64%	\$94,836	85%
University of South Florida	Medicine	736	\$51,520	67%	\$73,800	78%

 Table 20. First- and Fifth-Year Employment Outcomes for Graduates with

 Doctorate Medical Degrees

#### **Doctorate Degree (Non-Medical) Outcomes**

Ten universities within the Florida public postsecondary educational system offer doctorate degrees. Non-medical doctorates are offered in a lot of different programs as compared to law and medical doctorates. As a result, there is a wider variation in earnings outcomes. Graduates with non-medical doctorate degrees typically earn \$60,000 or more in their first year after graduation (see Figure 40). Graduates from Florida State University, the University of Florida, Florida A&M, and the University of North Florida earn approximately this amount. However, graduates from some institutions earn considerably more: Florida Atlantic University graduates earn a median salary of nearly \$80,000 in their first post-completion year. Less than 56% of nonmedical doctorate degree graduates from Florida State University were found in the employment records one year after completion, whereas 86% of those from the University of North Florida and Florida Gulf Coast University were found (see Figure **41**). Although this report cannot definitively answer why completers are not found in the employment records, it is possible that students who attend certain institutions are likely to be self-employed or to work outside the state of Florida and were thus underrepresented in employment data in the 2015-16 cohort class.

### Figure 40. Median First- and Fifth-Year Earnings of Graduates with Non-Medical Doctorate Degrees, by SUS Institution

Florida State University Florida A&M University University of Florida University of West Florida Florida International University Florida Gulf Coast University University of Central Florida University of South Florida Florida Atlantic University



### Figure 41. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Non-Medical Doctorate Degrees, by SUS Institution

Florida State University University of Florida Florida A&M University Florida International University University of Central Florida University of South Florida University of West Florida Florida Atlantic University Florida Gulf Coast University University of North Florida



#### What Students Study Matters

**Table 21** shows the top 10 programs by popularity along with median first-year earnings. Tremendous variability exists between the different programs with regard to first-year earnings. Among the most popular programs, graduates with a doctorate in electrical and electronics engineering have the highest median first-year earnings (\$102,000), and graduates with physics degrees have the lowest earnings (\$55,088). There also is a large range in the percentage of completers found in the employment records; only 51% of physics degree graduates were found, compared with 89% of nursing practice graduates. The highest paying non-medical doctorate degree is business administration and management (\$145,000). Electrical and electronics engineering is in the top 10 for both lists.

 Table 21. First- and Fifth-Year Employment Outcomes for Graduates with Popular

 Non-Medical Doctorate Degrees

Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Physical Therapy/Therapist	1,625	\$68,320	84%	\$78,904	84%
Nursing Practice	807	\$95,436	89%	\$109,108	87%
Curriculum and Instruction	615	\$70,752	74%	\$81,048	78%
Chemistry	566	\$56,100	53%	\$95,060	67%
Electrical and Electronics Engineering	457	\$102,000	49%	\$148,172	66%
Psychology	447	\$63,612	54%	\$92,412	72%
Educational Leadership and Administration	422	\$72,880	87%	\$88,700	78%
Physics	353	\$55,088	51%	\$92,204	60%
Education	291	\$70,616	78%	\$81,124	83%
Mechanical Engineering	284	\$77,536	55%	\$115,312	72%

#### A. Ten Most Popular Doctorate Degrees by Number of Graduates

#### B. Top 10 Doctorate Degrees By Median First-Year Earnings

Program	Total Completers	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	250	\$145,000	60%	\$155,712	71%
Nurse Anesthetist	18	\$144,564	83%	NA	NA
Business/Commerce	55	\$126,964	51%	\$123,076	78%
Computer Engineering	147	\$110,800	54%	\$156,152	78%
Electrical and Electronics Engineering	457	\$102,000	49%	\$148,172	66%
Computer and Information Sciences	181	\$100,360	57%	\$108,480	74%
Systems Science and Theory	43	\$98,880	72%	\$93,320	50%
Epidemiology	25	\$98,704	48%	NA	NA
Statistics	87	\$97,868	61%	\$109,840	64%
Biostatistics	28	\$95,692	43%	NA	NA

Some completers of doctorate degrees, such as those in chemistry and physics, have lower median first-year earnings than some completers of AS degrees. However, such comparisons must be made carefully since the current data do not speak to the level of career experience of graduates.

### **Student Loan Debt**

Student debt is a growing concern nationwide. Totaling more than \$1 trillion, student debt now surpasses outstanding credit card debt and automobile loans and is second only to home mortgages.<sup>18</sup> Many students default on their loans, and because student loans cannot be discharged in bankruptcy, the consequences of accumulating debt that cannot be paid off can be long term and financially devastating.

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>19</sup> The data reflect the average federal student loan debt of all students (not just graduates) receiving federal loans in 2017–18, and includes federal student loans from Stafford, Perkins, Graduate PLUS, Parent PLUS, and TEACH programs. The average student loan debt represents the total amount of student loans for 2017–18 at each college, divided by the number of students attending the college that academic year. The average does <u>not</u> include private loans or other debt issued by non-federal government sources that students may have sought to help finance their education.

Student loan data were not available by the degree program but are instead averaged at the level of the institution. **Figure 42** shows the average federal debt level per student in 2017–18 at each FCS institution in Florida.<sup>20</sup> Similar data are shown for each SUS institution in **Figure 43**.

<sup>&</sup>lt;sup>18</sup> The Federal Reserve Bank of New York issues periodic reports on the level of student debt. See, for example, <u>https://www.newyorkfed.org/newsevents/news/research/2019/20190514</u>.

<sup>&</sup>lt;sup>19</sup> District Technical Colleges (DTC) do not report debt information, so average debt for students at these institutions are not reported here.

<sup>&</sup>lt;sup>20</sup> Student loan data were <u>not</u> available for Chipola College or North Florida College.

#### Figure 42. Average Federal Loan Amount per Student, by FCS Institution, 2017–18

Florida Southwestern State College The College of the Florida Keys Miami Dade College Florida State College At Jacksonville Palm Beach State College Eastern Florida State College St Petersburg College St Johns River State College College Of Central Florida Indian River State College Valencia College South Florida State College Polk State College Hillsborough Community College Broward College Santa Fe College Lake Sumter State College Pasco Hernando State College Florida Gateway College Pensacola State College Gulf Coast State College Tallahassee Community College Daytona College Northwest Florida State College State College Of Florida Manatee And Sarasota Seminole State College Of Florida





#### Figure 43. Average Federal Loan Amount per Student, by SUS Institution, 2017–18

For FCS institutions, students at Seminole State College of Florida have the lowest average student loan debt in 2017-18 (\$1,255), whereas those attending Florida SouthWestern State College have the highest (\$4,355). Potential reasons for differences in the average student loan debt are differences in tuition cost and the proportion of students who are full time (thus paying full tuition) versus part time.

There also is a wide range in the average student loan debt taken on by students across Florida's SUS universities, from approximately \$3,700 (Florida Polytechnic University) to more than \$10,000 (Florida A&M University).

### **Levels of Public Assistance**

Higher education is often viewed as one of the most productive forms of human capital investment that individuals and taxpayers make. Up to this point, the 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>21</sup> which is an indicator of the financial well-being of students who complete different programs.

In the current dataset, 87,653 completers were receiving public assistance one-year post-completion. The range in the percentage of completers receiving public assistance is large, usually falling substantially with more advanced credentials.

**Table 22** reports the percentage of completers 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.

Twenty-one percent of students with certificates from DTCs received public assistance one year after completion, which is 9% more than the percentage of students earning the same credential at Florida colleges. Similarly, the percentage of students completing diplomas or apprenticeships at DTCs and receiving public assistance was higher (15% and 12% respectively) than that of students who completed diplomas or apprenticeships at Florida colleges (8% for both groups). As noted above, there is no data to explore potential differences in factors related to student success between students who attend Florida colleges and those who attend DTC institutions, and this should be considered when drawing any conclusions from these results.

<sup>&</sup>lt;sup>21</sup> For purposes of this report, public assistance includes a unique count of graduates and completers who received support or services from the Temporary Assistance for Needy Families (TANF) program and/or the Supplemental Nutrition Assistance Program (SNAP).
# Table 22. Percentage of Completers Receiving Public Assistance One Year After Completion

Program	Percentage Receiving Public Assistance
Career Certificate (DTC)	21%
Career Certificate (FCS)	12%
Postsecondary Vocational Certificate (FCS)	12%
Applied Technology Diploma (DTC)	15%
Applied Technology Diploma (FCS)	8%
Apprenticeship (DTC)	12%
Apprenticeship (FCS)	8%
Associate in Arts (FCS)	11%
Associate in Science (FCS)	10%
Associate in Applied Science Degree (FCS)	11%
Advanced Technical Certificate (FCS)	10%
Bachelor's Degree (FCS)	9%
Bachelor's Degree (SUS)	5%
Master's Degree (SUS)	2%
Specialist's Degree (SUS)	2%
Doctorate Degree, Law (SUS)	3%
Doctorate Degree, Medical/Pharmacy (SUS)	3%
Doctorate Degree, Medical/Medicine (SUS)	1%
Doctorate Degree, Non-Medical (SUS)	1%

## **Progress**

This is the seventh annual Economic Security Report (with six years of comparable data). Therefore, there is enough data to draw some conclusions about the progress made over the past six years. The median first-year earnings of graduates over the past six years can be compared across past Economic Security Reports (**Figure 44**).<sup>22</sup> In each case, the median is based on a cohort of five graduating classes.<sup>23</sup>

In nearly every case, median first-year salaries have increased steadily during the reporting years. The exception to this general pattern is completers of Advance Technical Certificates where earnings have fluctuated. Apprenticeships also showed a modest decrease between the 2019 and 2020 Economic Security Reports.

<sup>&</sup>lt;sup>22</sup> We selected the past five Economic Security Reports median first-year salaries because 2016 is the first year in which bachelor's degree median values were available for the FCS.

<sup>&</sup>lt;sup>23</sup> Data for higher-level degrees were not reported in the 2018 ESR, and so are not reported in Figure 42.

## Figure 44. Median First-Year Earnings by Degree, 2015–2020 Economic Security Report Medians



# Labor Market Information: Where the Jobs Are

Although this report primarily focuses on the first- and fifth-year earnings of graduates for academic years 2013–14 through 2017–18, 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 2028. 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.

A significant issue related to the projections is that the 2020 and 2028 industry and occupational projections reflect the continued effects of COVID-19 and the efforts to reopen businesses and services. These effects are reflected in the 2020 employment estimates and result in higher employment growth rates in those industries and occupations which have been impacted the most.

## **Industry Growth**

As students consider their educational options, two factors are important: the size and growth rates of the industries into which they might find employment. **Table 23** shows that in October 2020, the five largest industry sectors in Florida were trade, transportation, and utilities (20.7% of total employment); professional and business services (15.7%); education and health services (15.4%); government (12.7%); and leisure and hospitality (12.4%). Together, these five industries accounted for nearly 77% of Florida's total nonagricultural employment.

Total	8,593,200	Percentage of Total
Trade, Transportation, and Utilities	1,775,400	20.7%
Professional and Business Services	1,347,300	15.7%
Education and Health Services	1,326,600	15.4%
Government	1,088,000	12.7%
Leisure and Hospitality	1,061,600	12.4%
Financial Activities	598,500	7.0%
Construction	562,100	6.5%
Manufacturing	382,700	4.5%

#### Table 23. Nonagricultural Employment in Florida, by Industry, October 2020

Total	8,593,200	Percentage of Total
Other Services	327,100	3.8%
Information	127,300	1.5%

*Source:* U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Program, released November 20, 2020. Prepared by the Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research.

**Figure 45** shows the number of jobs lost by Florida's industries between 2019 and 2020 due to the continued effects of COVID-19 on businesses and services statewide. Florida lost 407,600 nonagricultural jobs between October 2019 and October 2020, which contrasts with the gain of over 233,000 jobs between October 2018 and October 2019. The hardest hit industries were leisure and hospitality (198,500 lost jobs); professional and business services (49,100 lost jobs); government (39,000 lost jobs); and trade, transportation, and utilities (37,700 lost jobs). This will be a challenging environment for graduates entering the labor market.



#### Figure 45. Number of Jobs Lost in Florida From October 2019 to October 2020

*Source:* U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Program, released November 20, 2020. Prepared by the Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research.

Long-term projections of growth by industry and occupation may be more important than short-term growth trends. Clearly, finding employment in a rapidly expanding industry or occupation is easier than finding one in a slow-growth industry. **Table 24** shows the industries in which percentage growth is most likely to occur through 2028. The fastest-growing industries are related to leisure and hospitality. With projected growth of 49.1% between 2020 and 2028, performing arts, spectator sports, and related industries is projected to be the fastest growing field, with accommodations (43.9%), amusement, gambling, and recreation industries (35.1%), and food services and drinking places (30.6%) coming in second, third, and fourth. All of these industries were significantly impacted by COVID-19, which resulted in fairly high growth rates.

Rank	Industry	Growth (2020 to 2028)	Percent Growth (2020 to 2028)
1	Performing Arts, Spectator Sports, and Related Industries	14,616	49.1%
2	Accommodations	61,626	43.9%
3	Amusement, Gambling, and Recreation Industries	54,202	35.1%
4	Food Services and Drinking Places	218,014	30.6%
5	Couriers and Messengers	15,935	27.9%
6	Personal and Laundry Services	24,901	27.6%
7	Social Assistance	27,788	20.6%
8	Educational Services	33,181	18.2%
9	Ambulatory Health Care Services	95,850	18.1%
10	Waste Management and Remediation Service	4,698	17.9%
11	Water Transportation	2,380	17.8%
12	Administrative and Support Services	102,829	17.0%
13	Nursing and Residential Care Facilities	29,916	16.2%
14	Warehousing and Storage	10,470	14.8%
15	Furniture and Home Furnishings Stores	5,156	14.5%
16	Support Activities for Transportation	8,990	14.0%
17	Professional, Scientific, and Technical Services	83,304	13.9%
18	Air Transportation	6,063	13.8%
19	Beverage and Tobacco Product Manufacturing	1,573	13.2%
20	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	6,390	12.8%

Source: http://floridajobs.org/economic-data/employment-projections.

However, high growth rates do not necessarily mean many new jobs will be created. For example, water transportation has a projected growth rate of 17.8%, but only about 2,380 new jobs are projected to be created by 2028. Another way to look at where jobs will likely be is to see which industries will be creating the most jobs, regardless of the growth rate. **Table 25** shows the top 20 industries in which the most jobs are likely to be created. After food services and drinking places (218,014 new jobs), which was significantly impacted by COVID-19, administrative and support services (102,829 new jobs), and ambulatory health care services (95,850 new jobs) are industries that are expected to grow rapidly in the coming years. Similarly, professional, scientific, and technical services (83,304 new jobs) and accommodations (61,626 new jobs) are expected to add a significant number of new jobs between 2020 and 2028.

Rank	Industry	Growth (2020 to 2028)	Percent Growth (2020 to 2028)
1	Food Services and Drinking Places	218,014	30.6%
2	Administrative and Support Services	102,829	17.0%
3	Ambulatory Health Care Services	95,850	18.1%
4	Professional, Scientific, and Technical Services	83,304	13.9%
5	Accommodation	61,626	43.9%
6	Amusement, Gambling, and Recreation Industries	54,202	35.1%
7	Local Government	43,298	5.8%
8	Specialty Trade Contractors	37,270	9.8%
9	Educational Services	33,181	18.2%
10	Nursing and Residential Care Facilities	29,916	16.2%
11	Social Assistance	27,788	20.6%
12	Hospitals	26,203	7.8%
13	Personal and Laundry Services	24,901	27.6%
14	State Government	16,455	7.8%
15	Couriers and Messengers	15,935	27.9%
16	Insurance Carriers and Related Activities	15,585	8.1%
17	Performing Arts, Spectator Sports, and Related Industries	14,616	49.1%
18	Motor Vehicle and Parts Dealers	14,061	9.7%
19	General Merchandise Stores	11,730	5.7%
20	Merchant Wholesalers, Durable Goods	11,615	6.3%

#### Table 25. Forecast of Industries Gaining the Most Jobs in Florida, 2020 to 2028

Source: http://floridajobs.org/economic-data/employment-projections.

## **Occupation Growth**

In addition to looking at which industries are growing; it is also important to consider growth in occupations. **Table 26** shows the occupations projected to grow the fastest through 2028. Out of the top 20 occupations that require at least some postsecondary education nine require a postsecondary vocational certificate, four require an associate degree, two require a bachelor's degree, and five require a master's, doctorate, or professional degree.

		2020-2028 Pro	jected Growth	Hourly	
Rank	Standard Occupation Classification (SOC) Title	Growth	Percent Growth	Median Wage (2019)	Education
1	Nurse Practitioners	6,062	51.9%	\$49.19	Master's, doctoral or professional degree
2	Cooks, Restaurant	46,054	47.6%	\$14.18	Postsecondary (PS) non-degree award
3	Massage Therapists	4,906	37.6%	\$18.36	PS non-degree award
4	Skin Care Specialists	1,709	34.3%	\$16.82	PS non-degree award
5	Physician Assistants	2,241	33.7%	\$52.84	Bachelor's degree
6	Chefs and Head Cooks	3,254	32.2%	\$25.16	PS non-degree award
7	Physical Therapist Assistants	2,022	29.6%	\$29.49	Associate degree
8	Interpreters and Translators	1,433	29.6%	\$23.66	Associate degree
9	First-Line Supervisors/Managers of Food Preparation and Serving Workers	17,297	28.3%	\$17.10	PS non-degree award
10	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	4,216	27.0%	\$16.96	PS non-degree award
11	Phlebotomists	2,334	26.5%	\$15.82	PS non-degree award
12	Health Specialties Teachers, Postsecondary	2,917	26.3%	\$69,387.00	Master's, doctoral or professional degree
13	Speech-Language Pathologists	2,030	26.2%	\$43.30	Master's, doctoral or professional degree
14	Audio and Video Equipment Technicians	1,470	25.9%	\$20.48	Associate degree
15	Operations Research Analysts	1,127	25.8%	\$32.59	Master's, doctoral or professional degree

#### Table 26. Forecast of the Fastest Growing Occupations<sup>24</sup> in Florida Through 2028

<sup>&</sup>lt;sup>24</sup> Includes the top 20 ranked occupations, excluding those that only require a high school diploma or GED.

		2020-2028 Projected Growth		Hourly	
Rank	Standard Occupation Classification (SOC) Title	Growth	Percent Growth	Median Wage (2019)	Education
16	Market Research Analysts and Marketing Specialists	9,223	25.0%	\$28.29	Bachelor's degree
17	Personal and Home Care Aides	9,457	24.9%	-	PS non-degree award
18	First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers	4,113	24.6%	\$23.53	PS non-degree award
19	Veterinarians	1,181	22.6%	\$37.97	Master's, doctoral or professional degree
20	Meeting and Convention Planners	1,734	22.5%	\$22.62	Associate degree

Source: http://floridajobs.org/economic-data/employment-projections.

Italics indicate where an annual wage is reported when no hourly wage rates exist.

## Higher Education Pays But Wages Vary Across Programs

**Figure 46** displays the median first- and fifth-year salaries for all certificates, diplomas, and degrees across all applicable institutions. Although some patterns are very clear, for instance, master's degree completers generally earn more than bachelor's degree completers, and medical doctorate degrees tend to have the highest earnings of all; the red line within each colored bar illustrates the variance in median wages (across applicable institutions), demonstrating the considerable variation across institutions offering the specific degree or certificate. The U.S. Department of Labor's Bureau of Labor Statistics and the U.S. Census Bureau have documented the "big payoff" for higher education,<sup>25</sup> but this report shows that the payoff varies considerably from program to program and somewhat from institution to institution. The bottom line: The level and type of postsecondary credentials that completers earn matters.

<sup>&</sup>lt;sup>25</sup> See <u>http://www.census.gov/prod/2002pubs/p23-210.pdf</u> and more recently <u>https://www.census.gov/newsroom/cspan/educ/educ\_attain\_slides.pdf</u>.



#### Figure 46. Median First- and Fifth-Year Earnings by Credential (for All Institutions)

Most notably, the labor market clearly places a high value on technical associate degrees. For many students, some certificates may represent an efficient pathway into the labor market. At the bachelor's degree level, the data shows that graduates earn on average roughly the same first-year wages regardless of their institution of learning. In short, there are many pathways to good earnings available to students in Florida, and the data available in this report and on Florida's Launch My Career website can help students find such pathways.

As students and others consider this data, it is important to keep in mind some of the limitations of the available data. Although the report documents wide variations in the first-year earnings of graduates from different programs, not all of these variations can be explained with the available data. For example, the credentials of incoming students vary across institutions, missions vary across institutions, and many schools serve regional labor markets where earnings vary. The data reported here are all short-term results from the labor market. In the long-term, graduates with bachelor's degrees tend to increase their earnings faster than those with associate degrees, so the short-term differences documented here may erode across time. Indeed, prospective students are encouraged to look at the long-term earnings data (20-year estimated Return on Investment [ROI]) on Florida's Launch My Career website.

Furthermore, postsecondary education has many rewards in addition to boosting earnings. However, those rewards along with earnings, should be evaluated relative to the investment, including loans, necessary to achieve them. It is particularly important to understand how the relative costs and earning potential vary by field of study, degree type, and institution. The data reported here should be made widely accessible to the public to inform students, their families, taxpayers, and their representatives about the labor market outcomes of programs, degrees, and institutions.

## Methodology

## Graduates Cohort 2013–14 to 2017–18

The cohort includes graduates and completers during their first year after graduation from public postsecondary education institutions for each academic year 2013–14 to 2017–18. Florida's public postsecondary education institutions include the SUS, the FCS, and DTCs. The data for this cohort reflects employment and earnings outcomes, continuing education, student loan debt, and level of public assistance.

#### Key Concepts

Median first- and fifth-year earnings and continuing 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 2013/14, 2014/15, 2015/16, 2016/17, and 2017/18 academic years. The fifth-year rates only include the 2013/14 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 Unemployment Insurance (UI) program for 2015-16, the Wage Record Interchange System 2 (WRIS2) for 2013-14 and 2014-15, and the State Wage Interchange System (SWIS) for 2016-17 and 2017-18 cohort years<sup>26</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. The 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 or in other fields.

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

<sup>&</sup>lt;sup>26</sup> WRIS2/SWIS data were excluded for the 2015-16 cohort year.

years 2013–14 to 2017–18 was summed and divided by the total number of graduates across the five years. Out-of- state continuing education is not included in this report.

Outcome data related to graduates and completers and continuing education are provided by the Florida Education and Training Placement Information Program (FETPIP). 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 the state of 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, "The [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>27</sup> For more information about CIP codes, visit the <u>NCES</u> website.

**Employment Records.** Employment data obtained from the UI wage records, as provided by the Florida Department of Revenue for the 2015-16 cohort year, the WRIS2 data for the 2013-14 and 2014-15 cohort years, and the SWIS data for the 2016-17 and 2017-18 cohort years.<sup>28</sup>

**Found Continuing Education Percentage.** The number of completers who were enrolled at a District Technical Center (DTC), Florida College System (FCS), or State University System (SUS) institution in the fall and spring semesters following graduation or completion of an educational program divided by the total number of completers.

**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.

<sup>&</sup>lt;sup>27</sup> <u>http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55.</u>

<sup>&</sup>lt;sup>28</sup> WRIS2/SWIS data were excluded for the 2015-16 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 2013-14 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 cohorts described in this report are shown in **Table 27** below.

Year	Min Wage	Min Wage Threshold 4th QTR	Min Wage Threshold Annualized
2013-14	\$7.93	\$4,124	\$16,496
2014-15	\$8.05	\$4,186	\$16,744
2015-16	\$8.05	\$4,186	\$16,744
2017-18	\$8.10	\$4,212	\$16,848
2018-19	\$8.25	\$4,290	\$17,160
2019-20	\$8.46	\$4,399	\$17,597

Table 27. Minimum Wage Thresholds Applied to Cohort Data

**Number of Completers.** The total number of students who completed or graduated from a program in the cohort.

**Public Assistance Percentage.** The number of completers 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 completers.

**Student Loan Debt.** The total average amount of student loans for 2017–18 at a Florida public postsecondary educational institution, divided by the number of students attending the school for that same period.

**Total Found Employed Percentage.** The number of completers with earnings divided by the total number of completers.

#### Data Disclosure

The data provided for the cohorts include only completers with valid Social Security numbers, and the earnings represent completers 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 2017–18, 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.

# Appendix: Completer Percentages by Degree/Certification and Institution

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Career Certificate (DTC)	American Senior High Adult Ed.	71%
	Aparicio-Levy Technical College	74%
	Atlantic Technical College	74%
	Baker County Adult Center	96%
	Big Bend Technical College	76%
	Bradford-Union Technical Center	70%
	Brewster Technical College	71%
	Cape Coral Technical College	79%
	Charlotte Technical College	83%
	Clay County Center for Adult & Community Education	92%
	Clewiston Adult School	59%
	Community School North	82%
	Coral Gables Sr High Adult Ed	53%
	D A Dorsey Technical College	66%
	DeSoto County Adult Education Center	79%
	Emerald Coast Technical College	71%
	Erwin Technical College	76%
	First Coast Technical College	78%
	Flagler Technical Institute	69%
	Florida Panhandle Technical College	72%
	Fort Myers Technical College	84%
	Fred K Marchman Technical College	72%
	Gadsden Technical Institute	69%
	George Stone Technical Center	73%
	George T Baker Aviation Technical College	78%
	Hialeah-Miami Lakes Sr. Adult	60%
	Hialeah Sr High Adult Ed Ctr	79%
	Immokalee Technical College	77%
	Indian River - Technical Center for Career and Adult Education	73%
	Lake Technical College	81%

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
	Learey Technical College	79%
	Lindsey Hopkins Technical College	70%
	Lively Technical Center	73%
	Lorenzo Walker Technical College	82%
	M-DCPS The English Center	56%
	Manatee Technical College	80%
	Marion Technical College	79%
	Miami Coral Park High Adult Ed	67%
	Miami Lakes Educational Center and Technical College	71%
	Miami Senior Adult Ed. Center	77%
	Miami Springs Sr. High Adult	89%
	North Miami Senior Adult Ed.	65%
	Okaloosa Technical College	67%
	Okeechobee Youth Development Center	36%
	Orange Technical College-Mid Florida Campus	75%
	Orange Technical College-Orlando Campus	77%
	Orange Technical College-Westside Campus	71%
	Orange Technical College-Winter Park Campus	74%
	Osceola Technical College Poinciana Campus	86%
	Osceola Technical College St Cloud Campus	73%
	Pasco High Adult Education	53%
	Pinellas Technical College-Clearwater	74%
	Pinellas Technical College-St. Petersburg	72%
	Radford M Locklin Technical Center	66%
	Ridge Technical College	76%
	RIVEROAK Technical College	74%
	Robert Morgan Educational Center and Technical College	67%
	Sheridan Technical College	70%
	South Dade Technical College	62%
	Southwest Adult Center	50%
	Sumter Count Adult Education	75%
	Suncoast Tech Educ Center- Extension Campus	70%
	Suncoast Technical College	83%
	Suncoast Technical Education Center	67%
	Technical Education Center-Osceola	79%
	Tom P Haney Technical Center	73%

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
	Traviss Technical College	80%
	Wakulla County Adult and Community Education	64%
	William H. Turner Technical Adult	77%
	William T McFatter Technical College	73%
	Withlacoochee Technical College	77%
Career Certificate (FCS)	Broward College	89%
	Chipola College	76%
	College of Central Florida	89%
	Daytona State College	81%
	Eastern Florida State College	79%
	Florida Gateway College	83%
	Florida Keys Community College	89%
	Florida SouthWestern State College	92%
	Florida State College at Jacksonville	78%
	Gulf Coast State College	87%
	Hillsborough Community College	84%
	Indian River State College	77%
	Miami Dade College	79%
	North Florida Community College	82%
	Northwest Florida State College	86%
	Palm Beach State College	81%
	Pasco-Hernando State College	82%
	Pensacola State College	65%
	Polk State College	96%
	Saint Johns River State College	87%
	Santa Fe College	84%
	Seminole State College of Florida	85%
	South Florida State College	80%
	St Petersburg College	90%
	Tallahassee Community College	92%
	Valencia College	91%

# Table A2. Percentage of Postsecondary Vocational Certificate Completers Foundin Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Postsecondary	Broward College	74%
Vocational Certificate (FCS)	Chipola College	84%
(FCS)	College of Central Florida	75%
	Daytona State College	68%
	Eastern Florida State College	68%
	Florida Gateway College	77%
	Florida Keys Community College	68%
	Florida SouthWestern State College	84%
	Florida State College at Jacksonville	70%
	Gulf Coast State College	74%
	Hillsborough Community College	79%
	Indian River State College	74%
	Lake-Sumter State College	77%
	Miami Dade College	75%
	North Florida Community College	80%
	Northwest Florida State College	71%
	Palm Beach State College	77%
	Pasco-Hernando State College	72%
	Pensacola State College	72%
	Polk State College	78%
	Saint Johns River State College	70%
	Santa Fe College	75%
	Seminole State College of Florida	74%
	South Florida State College	81%
	St Petersburg College	76%
	State College of Florida-Manatee-Sarasota	69%
	Tallahassee Community College	80%
	Valencia College	75%

# Table A3. Percentage of Applied Technology Certificate Completers Found inEarnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Applied Technology	Atlantic Technical College	85%
Diploma (DTC)	Charlotte Technical College	89%
	Erwin Technical College	80%
	Flagler Technical Institute	76%
	Florida Panhandle Technical College	77%
	Fort Myers Technical College	87%
	George Stone Technical Center	82%
	Learey Technical College	82%
	Manatee Technical College	85%
	Marion Technical College	76%
	Orange Technical College-Mid Florida Campus	81%
	Orange Technical College-Winter Park Campus	73%
	Sheridan Technical College	85%
	Suncoast Technical College	83%
	William T McFatter Technical College	76%
Applied Technology	Broward College	77%
Diploma (FCS)	College of Central Florida	89%
	Daytona State College	80%
	Eastern Florida State College	81%
	Florida Gateway College	80%
	Florida Keys Community College	70%
	Florida State College at Jacksonville	63%
	Gulf Coast State College	84%
	Indian River State College	80%
	North Florida Community College	84%
	Northwest Florida State College	77%
	Palm Beach State College	76%
	Pasco-Hernando State College	81%
	Pensacola State College	80%
	Polk State College	85%
	Santa Fe College	50%
	Seminole State College of Florida	86%
	South Florida State College	86%
	St Petersburg College	79%
	Tallahassee Community College	80%
	Valencia College	75%

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Apprenticeship (DTC)	Aparicio-Levy Technical College	85%
	Atlantic Technical College	80%
	Brewster Technical College	66%
	Community School North	84%
	Erwin Technical College	82%
	First Coast Technical College	91%
	Flagler Technical Institute	68%
	Fort Myers Technical College	93%
	Fred K Marchman Technical College	84%
	George Stone Technical Center	85%
	James Irvin Adult Education	67%
	Lake Technical College	91%
	Learey Technical College	81%
	Manatee Technical College	74%
	Marion Technical College	88%
	Miami Lakes Educational Center and Technical College	85%
	North Technical Education Center	64%
	Orange Technical College-Mid Florida Campus	87%
	Orange Technical College-Orlando Campus	61%
	Orange Technical College-Westside Campus	86%
	Pinellas Technical College-Clearwater	85%
	Pinellas Technical College-St. Petersburg	78%
	Radford M Locklin Technical Center	87%
	Sheridan Technical College	87%
	Suncoast Technical College	87%
	West Technical Education Center	71%
Apprenticeship (FCS)	Daytona State College	69%
	Hillsborough Community College	91%
	Indian River State College	89%
	Palm Beach State College	91%
	Santa Fe College	94%
	Seminole State College of Florida	94%

## Table A4. Percentage of Apprentice Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
AA Degree (FCS)	Broward College	68%
	Chipola College	58%
	College of Central Florida	66%
	Daytona State College	67%
	Eastern Florida State College	62%
	Florida Gateway College	65%
	Florida Keys Community College	62%
	Florida SouthWestern State College	70%
	Florida State College at Jacksonville	68%
	Gulf Coast State College	62%
	Hillsborough Community College	69%
	Indian River State College	66%
	Lake-Sumter State College	68%
	Miami Dade College	64%
	North Florida Community College	62%
	Northwest Florida State College	54%
	Palm Beach State College	71%
	Pasco-Hernando State College	70%
	Pensacola State College	61%
	Polk State College	70%
	Saint Johns River State College	66%
	Santa Fe College	60%
	Seminole State College of Florida	70%
	South Florida State College	65%
	St Petersburg College	70%
	State College of Florida-Manatee-Sarasota	67%
	Tallahassee Community College	63%
	Valencia College	71%

 Table A5. Percentage of Associate in Arts Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
AS Degree (FCS)	Broward College	83%
	Chipola College	75%
	College of Central Florida	84%
	Daytona State College	79%
	Eastern Florida State College	78%
	Florida Gateway College	89%
	Florida Keys Community College	76%
	Florida SouthWestern State College	88%
	Florida State College at Jacksonville	80%
	Gulf Coast State College	84%
	Hillsborough Community College	83%
	Indian River State College	83%
	Lake-Sumter State College	87%
	Miami Dade College	77%
	North Florida Community College	93%
	Northwest Florida State College	69%
	Palm Beach State College	83%
	Pasco-Hernando State College	84%
	Pensacola State College	72%
	Polk State College	90%
	Saint Johns River State College	79%
	Santa Fe College	86%
	Seminole State College of Florida	85%
	South Florida State College	91%
	St Petersburg College	83%
	State College of Florida-Manatee-Sarasota	87%
	Tallahassee Community College	81%
	Valencia College	81%

## Table A6. Percentage of Associate in Science Completers Found in Earnings Data

# Table A7. Percentage of Associate in Applied Science Completers Found inEarnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
AAS Degree (FCS)	Broward College	84%
	Daytona State College	76%
	Eastern Florida State College	77%
	Florida Keys Community College	72%
	Florida State College at Jacksonville	70%
	Gulf Coast State College	77%
	Hillsborough Community College	80%
	Indian River State College	75%
	Lake-Sumter State College	79%
	Miami Dade College	88%
	Northwest Florida State College	66%
	Palm Beach State College	71%
	Pasco-Hernando State College	59%
	Pensacola State College	70%
	Polk State College	84%
	Santa Fe College	74%
	Seminole State College of Florida	92%
	South Florida State College	81%
	State College of Florida-Manatee-Sarasota	77%
	Tallahassee Community College	80%
	Valencia College	74%

# Table A8. Percentage of Advanced Technical Certificate Completers Found inEarnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Advanced Technical	Broward College	73%
Certificate (FCS)	College of Central Florida	81%
	Daytona State College	80%
	Eastern Florida State College	95%
	Florida State College at Jacksonville	81%
	Gulf Coast State College	89%
	Hillsborough Community College	80%
	Palm Beach State College	89%
	Pensacola State College	68%
	Polk State College	88%
	Santa Fe College	88%
	St Petersburg College	84%
	State College of Florida-Manatee-Sarasota	81%
	Valencia College	93%

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Bachelor's Degree (FCS)	Broward College	86%
	Chipola College	85%
	College of Central Florida	83%
	Daytona State College	81%
	Eastern Florida State College	80%
	Florida Gateway College	89%
	Florida SouthWestern State College	88%
	Florida State College at Jacksonville	82%
	Gulf Coast State College	84%
	Indian River State College	83%
	Lake-Sumter State College	80%
	Miami Dade College	85%
	Northwest Florida State College	77%
	Palm Beach State College	82%
	Pasco-Hernando State College	88%
	Pensacola State College	75%
	Polk State College	88%
	Saint Johns River State College	86%
	Santa Fe College	83%
	Seminole State College of Florida	83%
	South Florida State College	86%
	St Petersburg College	85%
	State College of Florida-Manatee-Sarasota	86%
	Valencia College	90%
Bachelor's Degree (SUS)	Florida A&M University	75%
	Florida Atlantic University	76%
	Florida Gulf Coast University	77%
	Florida International University	71%
	Florida Polytechnic University	77%
	Florida State University	64%
	New College of Florida	53%
	University of Central Florida	75%
	University of Florida	59%
	University of North Florida	78%
	University of South Florida	74%
	University of West Florida	70%

## Table A9. Percentage of Bachelor's Degree Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Master's Degree (SUS)	Florida A&M University	72%
	Florida Atlantic University	79%
	Florida Gulf Coast University	82%
	Florida International University	75%
	Florida Polytechnic University	78%
	Florida State University	61%
	New College of Florida	64%
	University of Central Florida	77%
	University of Florida	65%
	University of North Florida	80%
	University of South Florida	72%
	University of West Florida	74%

#### Table A10. Percentage of Master's Degree Completers Found in Earnings Data

#### Table A11. Percentage of Specialist's Degree Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Specialist's Degree	Florida Atlantic University	97%
(SUS)	Florida International University	90%
	Florida State University	79%
	University of Central Florida	86%
	University of Florida	78%
	University of South Florida	71%
	University of West Florida	77%

#### Table A12. Percentage of Doctorate (Law) Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Doctorate (law) (SUS)	Florida A&M University	67%
	Florida International University	71%
	Florida State University	71%
	University of Florida	75%

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Doctorate (medical) (SUS)	Florida A&M University	71%
	Florida Atlantic University	64%
	Florida International University	57%
	Florida State University	68%
	University of Central Florida	64%
	University of Florida	72%
	University of South Florida	73%

#### Table A13. Percentage of Doctorate (Medical) Completers Found in Earnings Data

## Table A14. Percentage of Doctorate (Non-Medical) Completers Found in EarningsData

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Doctorate (non-medical) (SUS)	Florida A&M University	66%
	Florida Atlantic University	76%
	Florida Gulf Coast University	85%
	Florida International University	68%
	Florida State University	55%
	University of Central Florida	70%
	University of Florida	59%
	University of North Florida	86%
	University of South Florida	70%
	University of West Florida	71%





