

Outcomes for Graduates of Florida's Public Postsecondary Educational Institutions

Economic Security Report 2019

February 2020



Prepared by Amber Bloomfield
Senior Data Scientist
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.¹ 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 2016-17 is also reported. The results show what type of postsecondary credentials students earn and, in particular, 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).² & ³ 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 2012–13 to 2016–17 (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.

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

² The WRIS2 program is a voluntary system whereby states can share aggregate employment and wage outcomes with other states. This enables us to report on the employment and earnings data of graduates from Florida who are employed in other states. The current membership of the WRIS2 exchange includes 45 states, the District of Columbia, and the Commonwealth of Puerto Rico. A map of participating states can be found at https://www.doleta.gov/performance/pfdocs/WRIS2_Status_Map.pdf. Although Florida's neighbor, Georgia, is currently a member of WRIS2, Alabama is not.

³ The WRIS2 data is only linked to the 2012-13, 2013-14, and 2014-15 cohort classes. The 2015-16 and 2016-17 cohort classes only include data from Florida.

Table ATR1. Cohorts Contributing to Outcomes

Cohort	2012–13	2013–14	2014–15	2015–16	2016–17
Contributes to first-year outcomes	X	X	X	X	X
Contributes to fifth-year outcomes	X				

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 2012–13 to 2016–17. However, the data was not always available for graduates five years after graduation (i.e., the 2012–13 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 985,658 completers across a five-year period from academic years 2012–13 to 2016–17. Key findings for each of Florida's public postsecondary education institutions by attainment level are as follows.

Certificates/Diplomas/Apprenticeships

- Over 195,000 certificates, diplomas, and apprenticeships were awarded between academic years 2012-13 to 2016-17.
- DTCs issued nearly 30% more career certificates than colleges in the FCS. Career certificates issued by DTCs accounted for almost 59% 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 (80%) than graduates with career certificates from DTCs (73%).
 - In addition, during the five-year period of study, median first-year earnings of graduates and graduates from the FCS were higher (\$36,480) than the earnings of graduates with certificates from DTCs (\$29,376).
 - Fifth-year earnings for career certificates were higher than first year earnings across institutions, but fifth-year employment percentages were lower.
- Most apprenticeships are offered through DTC institutions. The most common, electrician, has fairly high first-year earnings, \$51,020. However, a large degree of variation exists in earnings between apprenticeship graduates (from \$20,000 to more than \$60,000 for first-year earnings).
- Nearly 23% of graduates who earned career certificates from DTCs received public assistance, which is 10% 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 353,047 degrees awarded between academic years 2012-13 to 2016-17 (this includes 279,256 associate in art (AA) degrees, 69,683 associate in science (AS) degrees, and 4,108 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 \$16,750 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 business administration was \$33,824. Graduates with an AS degree in nursing earned about \$52,800, and graduates with an AS degree in emergency medicine technology–paramedic earned about \$55,500.
- 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 330,812 degrees awarded between academic years 2012-13 to 2016-17.
- Median first-year earnings of graduates with bachelor's degrees from SUS institutions varied from \$24,224 (New College of Florida) to more than \$59,000 (Florida Polytechnic University).
- The median first-year earnings of bachelor's graduates from five universities (Florida Atlantic University, Florida Gulf Coast University, the University of Central Florida, the University of North Florida, and the University of South Florida) were within \$1,000 of the state median, which suggests a consistency in the value of an SUS bachelor's degree.

- Biology and psychology are the two most popular fields of study in SUS institutions. Graduates in these fields had relatively low first-year earnings: almost \$8,000 less than the statewide median for psychology and about \$9,500 for biology. Graduates with degrees in criminal justice, the fifth most popular field in the SUS system, also were below the statewide median by approximately \$5,000. In contrast, graduates with degrees in nursing, the third most popular degree, had first-year earnings approximately \$20,000 higher than the statewide median.
- During the five-year study period, FCS campuses awarded nearly 33,000 bachelor's degrees. These degrees were concentrated in a small number of relatively high-paying fields (e.g., registered nursing/registered nurse, computer/information technology services administration and management). As a result, the median first-year earnings of graduates with bachelor's degrees from FCS institutions, nearly \$45,000, were higher than those of graduates with bachelor's degrees from SUS institutions (approximately \$37,000).

Master's/Specialist's/Doctorate

- Over 106,400 master's, specialist's, and doctorate degrees were awarded between academic years 2012-13 to 2016-17.
- 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 \$52,000 compared with approximately \$37,000 for graduates with bachelor's degrees from Florida's universities.
- Graduates with specialist degrees in education had the highest one-year median earnings, at more than \$62,000.
- 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 \$126,000, and those with doctorates in music performance, general and linguistics reporting median first-year earnings of less than \$40,000.

Student Loan Debt

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

- In the 2016-17 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 \$2,150 (Florida State College at Jacksonville) to around \$4,150 (The College of the Florida Keys).
- Average federal debt for students at Florida's SUS institutions ranged from \$3,800 (New College of Florida) to around \$9,740 (University of Florida).

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 5% 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 for the years 2016-2019. 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 the industries and occupations that are likely to be most in demand in the next 10 years.

- The healthcare industry is projected to continue expansion because of population growth, an aging population, and improved medical technologies.
- The ambulatory health care services industry is expected to add a significant number of new jobs, along with having a high rate of growth. Food services and drinking places is expected to have a lower rate of growth, but because it is a large industry, it is expected to add more jobs than most of the faster growing industries.

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

- [Florida College Graduates Succeed](#) is an online business intelligence tool designed to provide access to employment and earnings information on Florida College System (FCS) college graduates.
- [Baccalaureate Follow-up Study](#) 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).

Contents

	Page
Introduction	1
Florida’s Public Postsecondary Education Institutions	4
District Technical Centers	4
Florida College System	4
State University System of Florida	4
Certificates, Diplomas, and Apprenticeships	5
Certificate Outcomes.....	5
Applied Technology Diploma Outcomes.....	19
Apprenticeship Outcomes	25
What Students Study Matters	30
Continuing Education of Certificates/Diplomas/Apprenticeships Students	37
Associate Degrees	39
Associate in Arts Degree Outcomes.....	40
Associate in Science Degree Outcomes	44
Associate in Applied Science Degree Outcomes	48
Advanced Technical Certificates Outcomes	51
What Students Study Matters.....	52
Continuing Education of Associate Degree Students.....	58
Bachelor’s Degrees.....	59
Bachelor’s Degree Outcomes (Florida College System).....	59
Bachelor’s Degree Outcomes (State University System).....	63
What Students Study Matters	66
Continuing Education of Bachelor’s Degree Students	70
Master’s Degrees.....	73
Master’s Degree Outcomes	73
What Students Study Matters.....	75

Specialist’s Degrees	79
Specialist’s Degree Outcomes	79
What Students Study Matters.....	81
Doctorate Degrees	83
Doctorate Degree (Law) Outcomes.....	84
Doctorate Degree (Medical) Outcomes.....	85
Doctorate Degree (Non-Medical) Outcomes.....	86
What Students Study Matters.....	87
Student Loan Debt	90
Levels of Public Assistance	92
Progress.....	94
Labor Market Information: Where the Jobs Are	96
Industry Growth.....	96
Occupation Growth	100
Higher Education Pays But Wages Vary Across Programs	102
Methodology.....	105
Graduates Cohort 2012–13 to 2016–17	105
Appendix: Completer Percentages by Degree/Certification and Institution	109

List of Figures

	Page
Figure 1. Map of Florida Public Postsecondary Educational Institutions	2
Figure 2. Number of Completers by Certificate/Degree	3
Figure 3. Median First- and Fifth-Year Earnings of Completers of DTC Career Certificates.....	7
Figure 3. Continued - Median First- and Fifth-Year Earnings of Completers of DTC Career Certificates.....	8
Figure 4. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of DTC Career Certificates.....	10
Figure 4. Continued - Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of DTC Career Certificates	11
Figure 5. Median First-Year Earnings of Completers of Career Certificates, by FCS Institution.....	13
Figure 6. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Career Certificates, by FCS Institution	15
Figure 7. First- and Fifth-Year Earnings for Completers of Postsecondary Vocational Certificates, by FCS Institution	17
Figure 8. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Postsecondary Vocational Certificates, by FCS Institution	18
Figure 9. First- and Fifth-Year Earnings for Completers of Applied Technology Diplomas, by FCS Institution.....	20
Figure 10. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Applied Technology Diplomas, by FCS Institution.....	21
Figure 11. First- and Fifth-Year Earnings for Completers of Applied Technology Diplomas, by DTC Institution	23
Figure 12. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Applied Technology Diplomas, by DTC Institutions.....	24
Figure 13. First- and Fifth-Year Earnings for FCS Apprenticeship Completers.....	26
Figure 14. Percentage Found in Employment Data After 1 Year and 5 Years for FCS Completers of Apprenticeships	27

Figure 15. First- and Fifth-Year Earnings for DTC Apprenticeship Completers.....	28
Figure 16. Percentage Found in Employment Data After 1 Year and 5 Years for DTC Completers of Apprenticeships	29
Figure 17. Percentage of Completers Enrolled in Continuing Education After 1 and 5 Years	38
Figure 18. Median First- and Fifth-Year Earnings of Graduates with AA Degrees, by College	41
Figure 19. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with AA Degrees, by FCS Institution	43
Figure 20. Median First and Fifth-Year Earnings of Graduates with AS Degrees, by FCS Institution.....	45
Figure 21. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with AS Degrees, by FCS Institution	47
Figure 22. Median First- and Fifth-Year Earnings of Completers of AAS Degrees, by FCS Institution.....	49
Figure 23. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of AAS Degrees, by FCS Institution.....	50
Figure 24. Median First- and Fifth-Year Earnings of Completers of ATC, by FCS Institution	51
Figure 25. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of ATC	52
Figure 26. Percentage of Associate Degrees and ATC Completers Enrolled in Continuing Education After 1 and 5 Years.....	58
Figure 27. Median First- and Fifth-Year Earnings of Graduates with Bachelor's Degrees, by FCS Institution.....	61
Figure 28. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Bachelor's Degrees, by FCS Institution	62
Figure 29. Median First- and Fifth-Year Earnings of Graduates with Bachelor's Degrees, by SUS Institution	64
Figure 30. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Bachelor's Degrees, by SUS Institution	65
Figure 31. Percentage of Bachelor's Degree Graduates Enrolled in Continuing Education After 1 and 5 Years.....	70

Figure 32. Median First- and Fifth-Year Earnings of Graduates with Master's Degrees, by University	74
Figure 33. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Master's Degrees	74
Figure 34. Median First-Year Earnings of Graduates with Bachelor's and Master's Degrees for Popular Bachelor's Degrees	77
Figure 35. Median First-Year Earnings for Graduates with Bachelor's and Master's Degrees, by SUS Institution	78
Figure 36. Median First- and Fifth-Year Earnings of Graduates with Specialist Degrees, by SUS Institution	80
Figure 37. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Specialist Degrees, by SUS Institution.....	81
Figure 38. Median First- and Fifth-Year Earnings of Graduates with Non-Medical Doctorate Degrees, by SUS Institution.....	86
Figure 39. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Non-Medical Doctorate Degrees, by SUS Institution	87
Figure 40. Average Federal Loan Amount per Student, by FCS Institution, 2016–17	91
Figure 41. Average Federal Loan Amount per Student, by SUS Institution, 2016–17	92
Figure 42. Median First-Year Earnings by Degree, 2016–2019 Economic Security Report Medians	95
Figure 43. Number of Jobs Gained in Florida From October 2018 to October 2019.....	98
Figure 44. Median First- and Fifth-Year Earnings by Credential (for All Institutions).....	103

List of Tables

	Page
Table ATR1. Cohorts Contributing to Outcomes.....	iii
Table 1. Employment Outcomes of Completers with Career Certificates	6
Table 2. First- and Fifth-Year Employment Outcomes for Completers of Popular Career Certificate Awarded by District Technical Centers	30
Table 3. First- and Fifth-Year Employment Outcomes for Completers of Popular Career Certificate Awarded by the Florida College System (FCS).....	31
Table 4. First- and Fifth-Year Employment Outcomes for Completers of Popular Postsecondary Vocational Certificates Awarded by the Florida College System (FCS)	33
Table 5. First and Fifth-Year Employment Outcomes for Completers of an Applied Technology Diploma	34
Table 6. First and Fifth-Year Employment Outcomes for Completers of Apprenticeships Awarded by the Florida College System (FCS).....	35
Table 7. First and Fifth-Year Employment Outcomes for Completers of Apprenticeships Awarded by District Technical Centers (DTC)	36
Table 8. Employment Outcomes for Graduates with Associate Degrees and Advanced Technical Certificates	40
Table 9. First- and Fifth-Year Employment Outcomes for Graduates with Popular AS Degrees	53
Table 10. First- and Fifth-Year Employment Outcomes for Graduates with Popular AAS Degrees	55
Table 11. First- and Fifth-Year Employment Outcomes for Completers of ATC	56
Table 12. Employment Outcomes for Graduates with Bachelor’s Degrees	60
Table 13. First- and Fifth-Year Employment Outcomes for Graduates with Popular FCS Bachelor’s Degrees.....	67
Table 14. First- and Fifth-Year Employment Outcomes for Graduates with Popular SUS Bachelor’s Degrees	68
Table 15. Percentage of Graduates with Bachelor’s Degrees Who Were Enrolled in Continuing Education in Florida After One Year, by FCS Institution	71

Table 16. Percentage of Graduates with Bachelor’s Degrees Who Were Enrolled in Continuing Education in Florida After One Year, by SUS Institution	72
Table 17. First- and Fifth-Year Employment Outcomes for Completers of Popular Master’s Degrees	75
Table 18. First- and Fifth-Year Employment Outcomes for Graduates with Specialist Degrees, by Program.....	81
Table 19. First- and Fifth-Year Employment Outcomes for Graduates with Doctorate Law Degrees.....	84
Table 20. First- and Fifth-Year Employment Outcomes for Graduates with Doctorate Medical Degrees	85
Table 21. First- and Fifth-Year Employment Outcomes for Graduates with Popular Non-Medical Doctorate Degrees	88
Table 22. Percentage of Completers Receiving Public Assistance One Year After Completion	93
Table 23. Nonagricultural Employment in Florida, by Industry, October 2019	97
Table 24. Forecast of the Fastest Growing Industries in Florida Through 2027	99
Table 25. Forecast of the Industries Gaining the Most New Jobs in Florida Through 2027	100
Table 26. Forecast of the Fastest Growing Occupations in Florida Through 2027	101
Table 27. Minimum Wage Thresholds Applied to Cohort Data	107
Table A1. Percentage of Career Certificate Completers Found in Earnings Data.....	109
Table A2. Percentage of Postsecondary Vocational Certificate Completers Found in Earnings Data	112
Table A3. Percentage of Applied Technology Certificate Completers Found in Earnings Data	113
Table A4. Percentage of Apprentice Completers Found in Earnings Data	115
Table A5. Percentage of Associate in Arts Completers Found in Earnings Data.....	117

Table A6. Percentage of Associate in Science Completers Found in Earnings Data	118
Table A7. Percentage of Associate in Applied Science Completers Found in Earnings Data	119
Table A8. Percentage of Advanced Technical Certificate Completers Found in Earnings Data	120
Table A9. Percentage of Bachelor's Degree Completers Found in Earnings Data.....	121
Table A10. Percentage of Master's Degree Completers Found in Earnings Data.....	122
Table A11. Percentage of Specialist's Degree Completers Found in Earnings Data	122
Table A12. Percentage of Doctorate (Law) Completers Found in Earnings Data.....	122
Table A13. Percentage of Doctorate (Medical) Completers Found in Earnings Data	123
Table A14. Percentage of Doctorate (Non-Medical) Completers Found in Earnings Data	123

Introduction

The Florida Economic Security Report, per s. 445.07, Florida Statute, 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, 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:

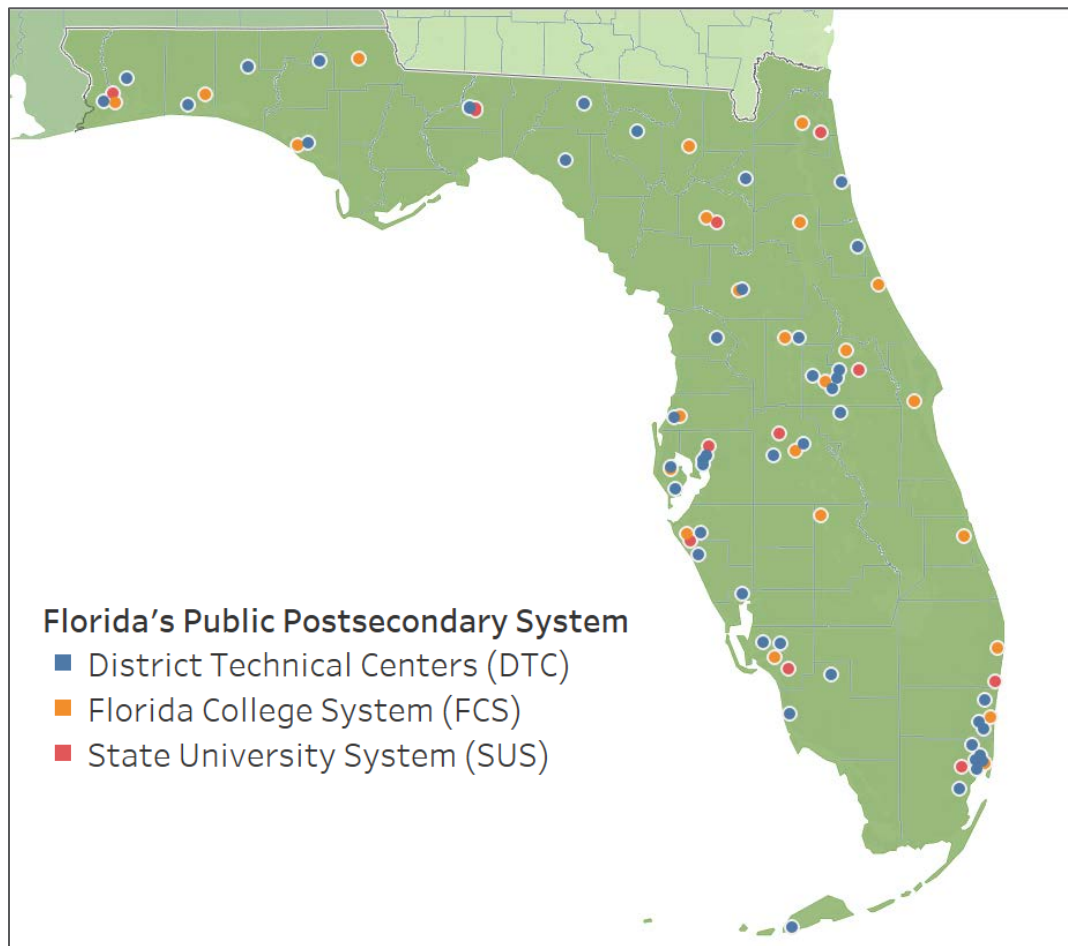
- District Technical Centers (DTCs)
- Florida College System (FCS)
- State University System of Florida (SUS)

The results show that economic outcomes are primarily correlated with a student's selected degree or certificate and credential level.

The data discussed in this report reflects median outcomes for graduates in their first- and fifth-year after graduation for academic years 2012–13 to 2016–17. 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 2012-13 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.

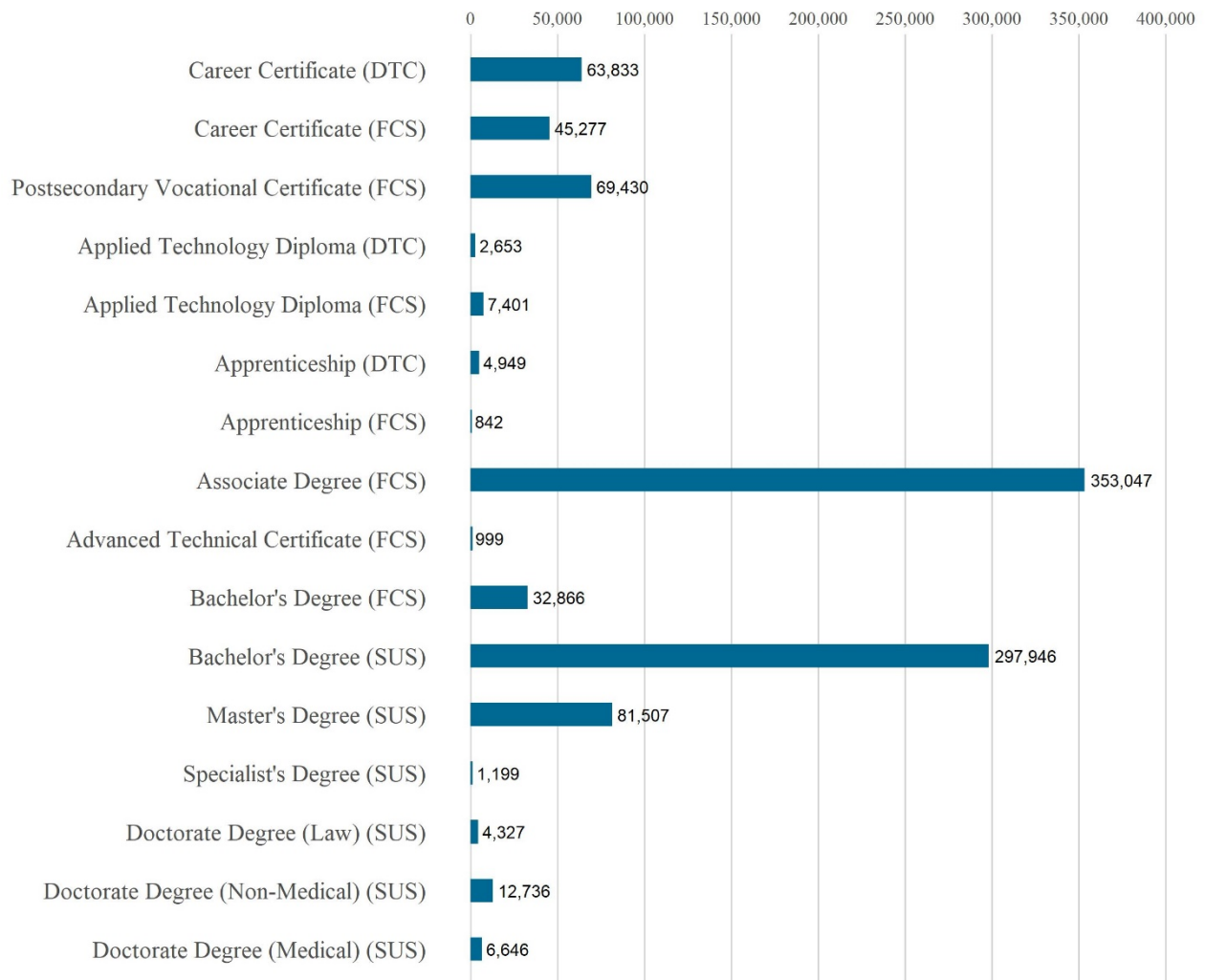
Figure 1 illustrates the geographic distribution of institutions across Florida, indicating that postsecondary education opportunities are well dispersed across the state. The report documents the variation in first-year earnings for graduates who earned degrees or certificates from all three postsecondary 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 1. Map of Florida Public Postsecondary Educational Institutions



The number of completers in the data, by degree/certificate, is shown in **Figure 2**. Associate degrees are most common, followed by bachelor's degrees at Florida's universities. 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 the level of the degree/certificate a student completes and by the area of study for that degree/certificate.

Figure 2. Number of Completers by Certificate/Degree



Florida's Public Postsecondary Education Institutions

Florida's public postsecondary education system consists of 95 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 2012–13 to 2016–17), 985,658 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 52 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 degree programs at the baccalaureate, graduate, and professional levels, which awarded over 91,000 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).

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, 195,384 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 (\$28,612) were lower than those of completers with career certificates from FCS institutions (\$36,480), DTC institutions (\$36,612), or postsecondary vocational certificates (\$33,444). However, completers of certificate courses, on average, had lower median first-year earnings than graduates with AS degrees (\$45,348). Together, Florida's FCS and DTCs awarded 179,539 career certificates for the academic years of 2012-13 through 2016-17.

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 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 (63,833 versus 45,277, respectively). However, students who completed career certificates from FCS institutions were more likely to be found in the employment records (80% compared with 73% of completers)⁴ and earned a higher first-year median wage (approximately \$36,500 compared with \$29,500).

Table 1. Employment Outcomes of Completers with Career Certificates

	Career Certificate (DTC)	Career Certificate (FCS)
Median First-Year Wage	\$29,376	\$36,480
Total Completers	63,833	45,277
Total Employed	46,698	36,343
Percentage Employed	73%	80%

Career Certificates Awarded by District Technical Centers

Figure 3 shows the median first-year earnings of graduates with career certificates awarded by DTCs. Earnings outcomes varied considerably, ranging from \$20,620 (Suncoast Technical Education Center) to \$41,748 (Monroe County Adult and Community Education).

⁴ 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 3. Median First- and Fifth-Year Earnings of Completers of DTC Career Certificates

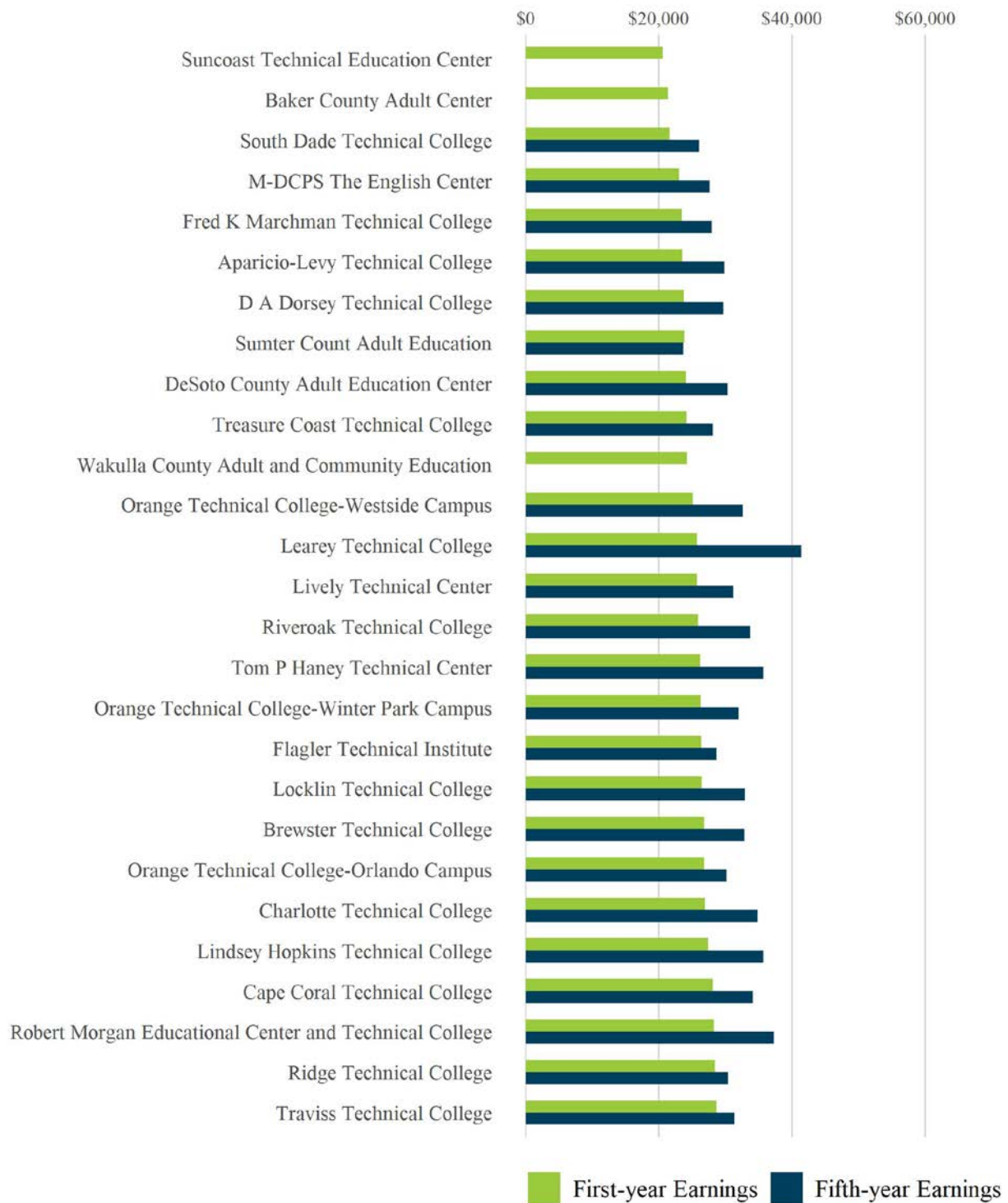


Figure 3. Continued - Median First- and Fifth-Year Earnings of Completers of DTC Career Certificates

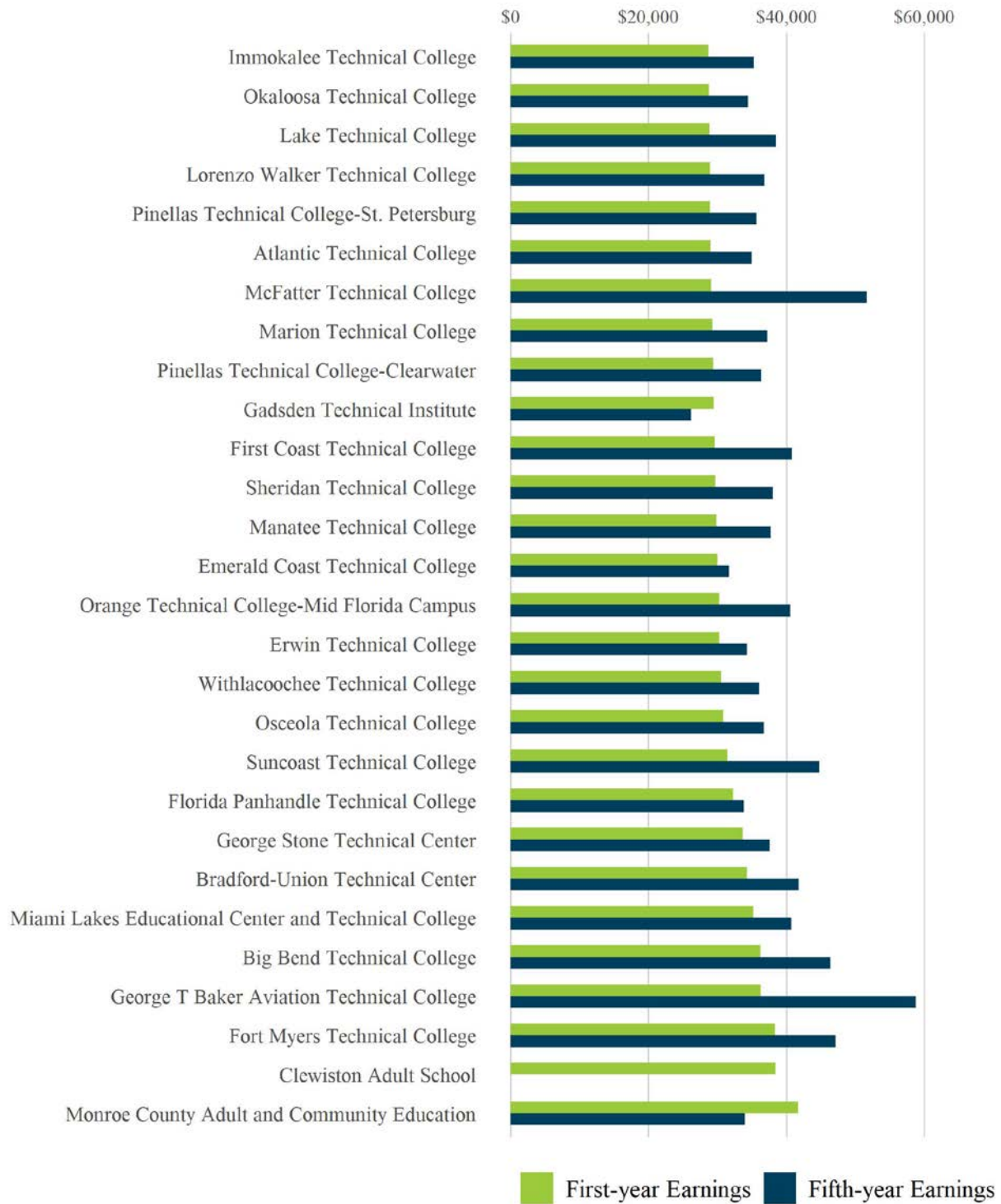
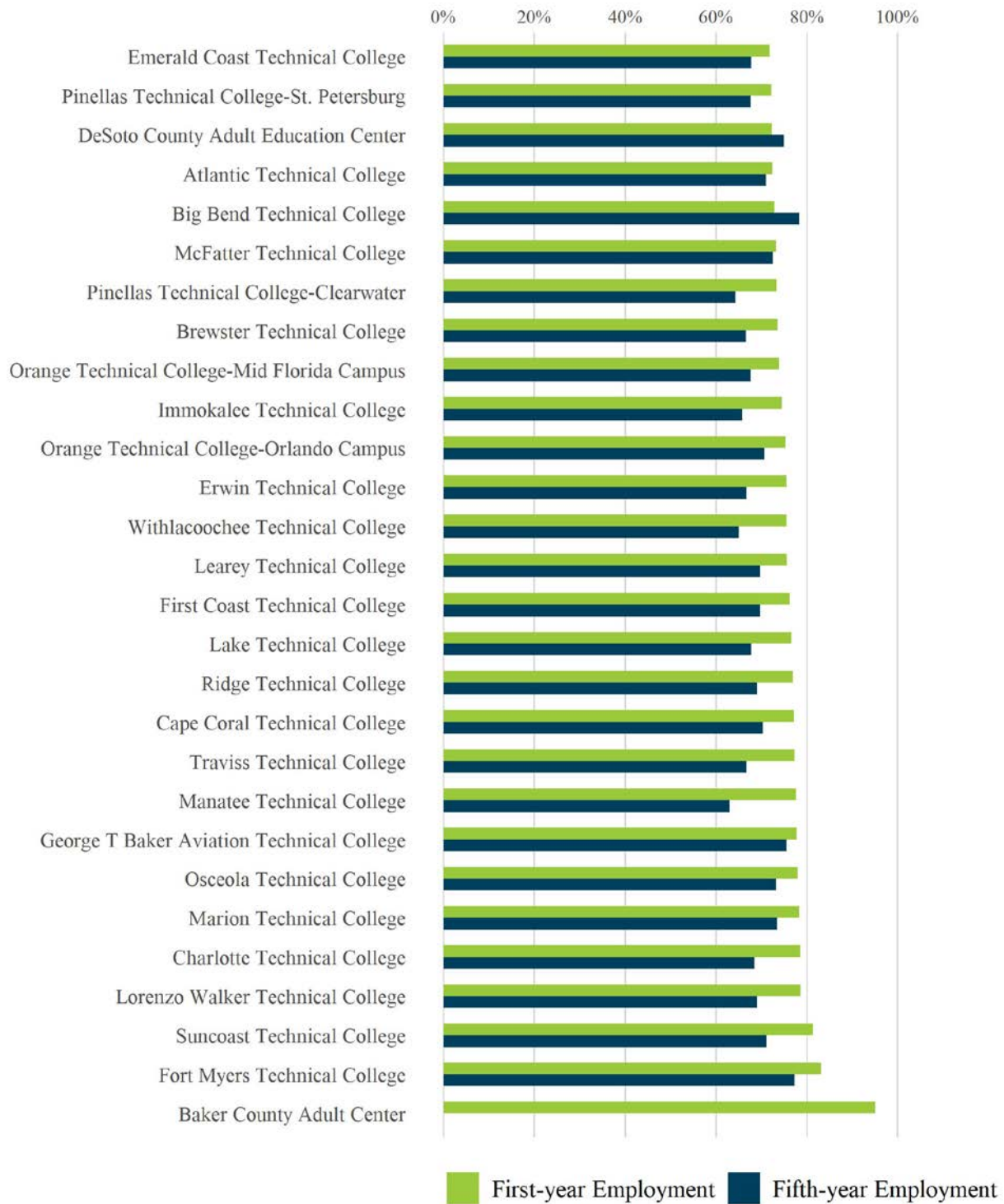


Figure 4 displays the percentage of completers found in the employment records one and five years after completion. Completers of career certificates from Baker County Adult Center were the most likely to be found in the employment records (95%), while those from Monroe County Adult and Community Education were least likely (45%) to be found.

Figure 4. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of DTC Career Certificates



Figure 4. Continued - Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of DTC Career Certificates



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 \$36,000. And, as shown in **Figure 5**, the medians for FCS certificate completers generally ranged between \$30,000 and \$37,000 by institution. For example, completers from Pensacola State College had a median first-year wage of less than \$27,000, St. Petersburg College and Broward College certificate completers had median earnings of over \$50,000. This broad range shows why detailed program-level analysis is essential.

Figure 5. Median First-Year Earnings of Completers of Career Certificates, by FCS Institution

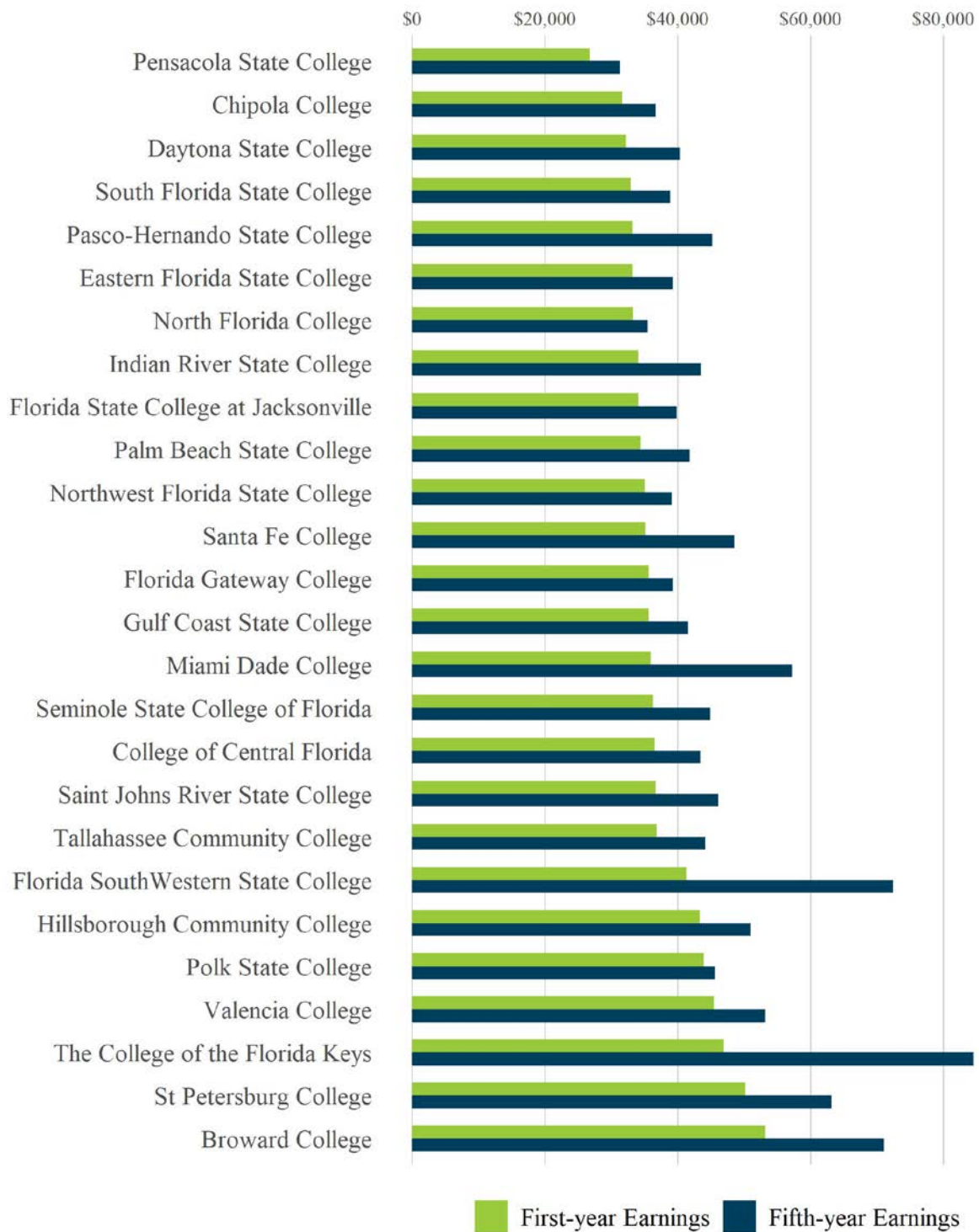
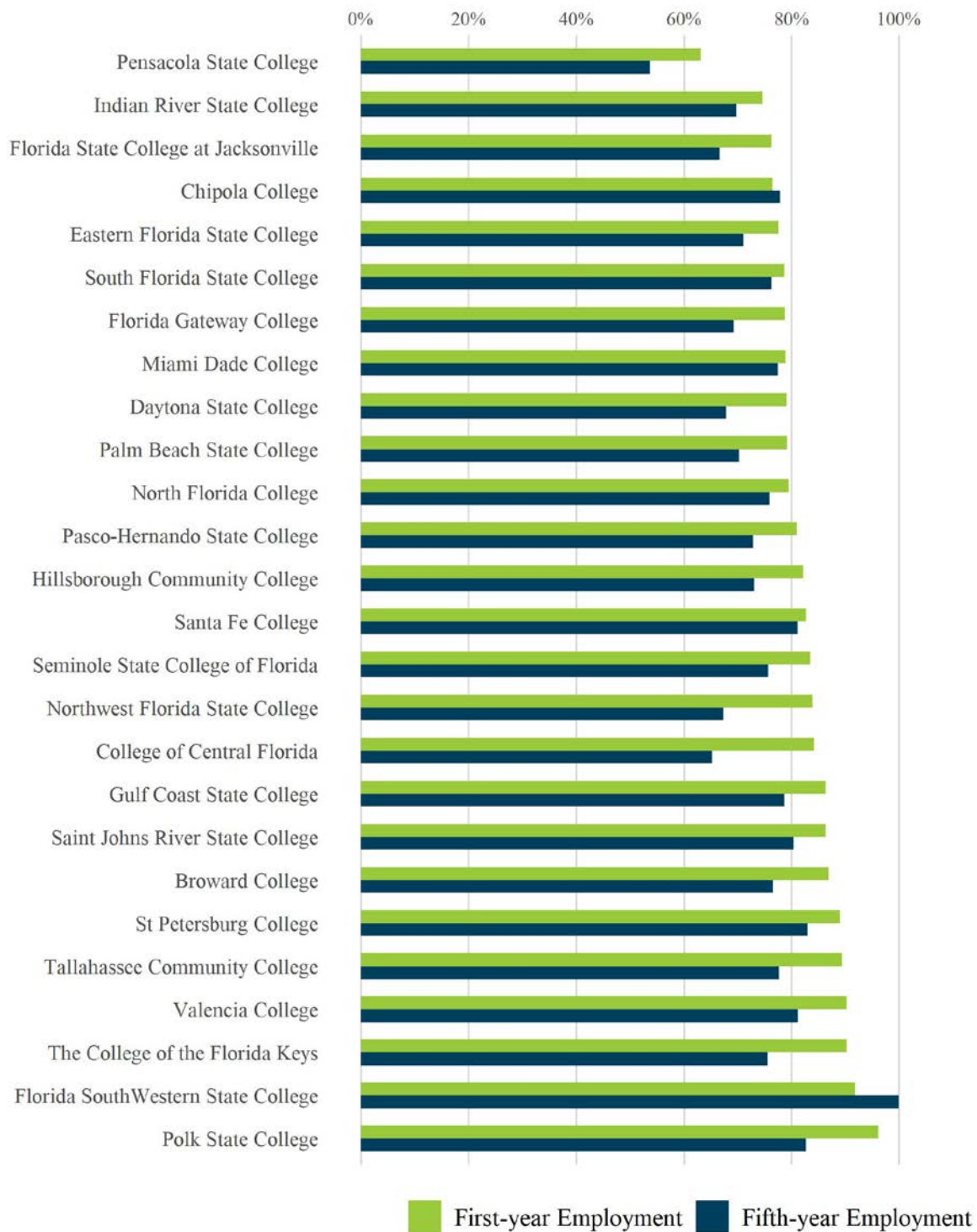


Figure 6 displays the percentage of completers within the employment records one and five years post-completion. Pensacola State College completers are found at the lowest rate (63%), whereas Polk State completers are found at the highest rate (96%) – one year after completion. It is important to remember, however, that completers may not appear in the employment records for multiple reasons, including self-employment, continuation of education, employment outside the Wage Record Interchange System 2 (WRIS2) consortium of states, or were excluded from the WRIS2 data for the 2015-16 and 2016-17 cohort years.

Figure 6. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Career Certificates, by FCS Institution



Postsecondary Vocational Certificates

Figure 7 shows the median first- and fifth-year earnings by institution for completers of postsecondary vocational certificates. With statewide median first-year earnings approximately \$33,500, 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 more than \$29,000. In contrast, completers with postsecondary vocational certificates from South Florida State College and North Florida College had median first-year earnings that exceeded \$42,000. **Figure 8** shows that the proportion of completers found employed in the state also varies widely, ranging from 65% of completers from Daytona State College to 84% from Florida SouthWestern State College.

Figure 7. First- and Fifth-Year Earnings for Completers of Postsecondary Vocational Certificates, by FCS Institution

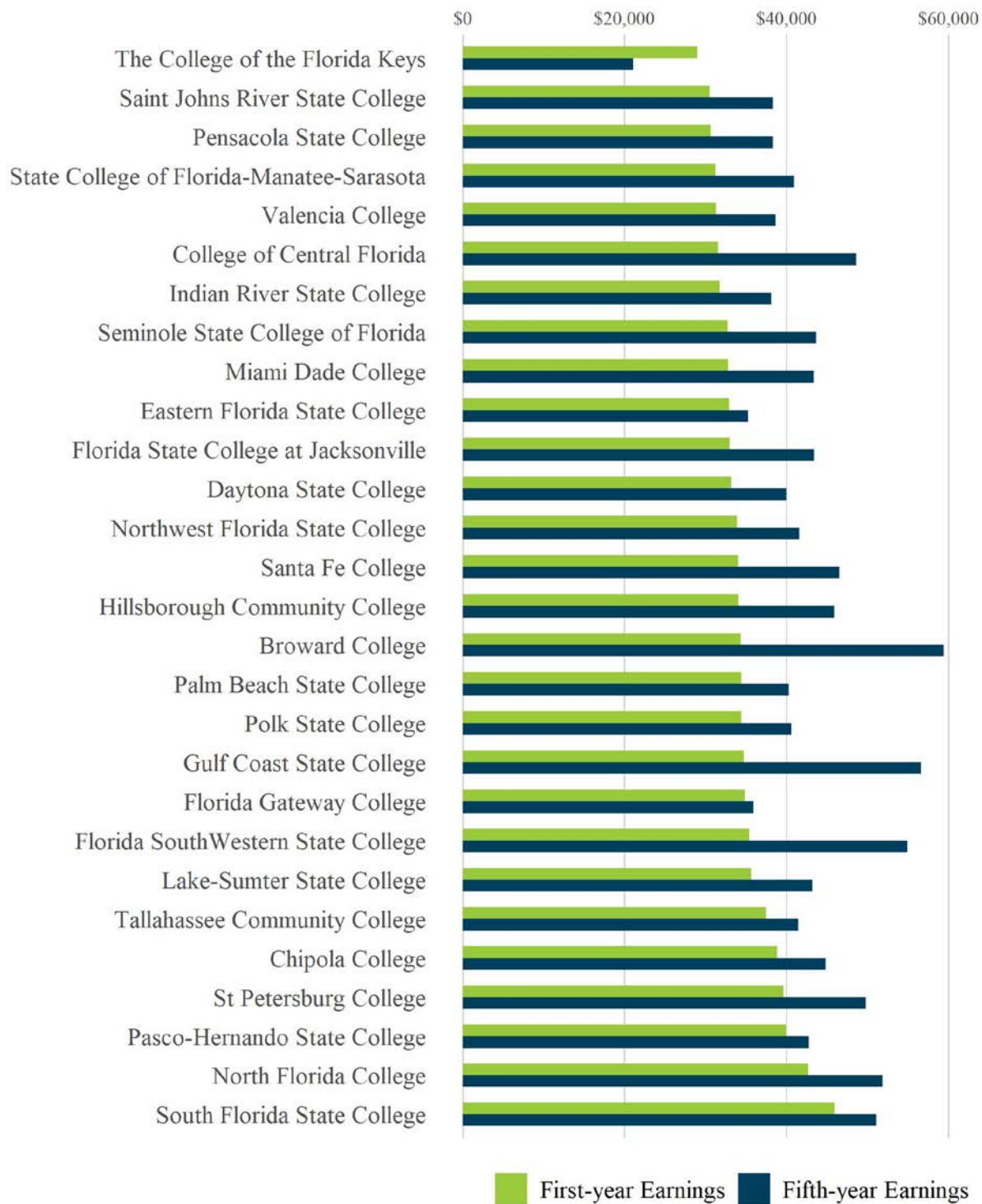
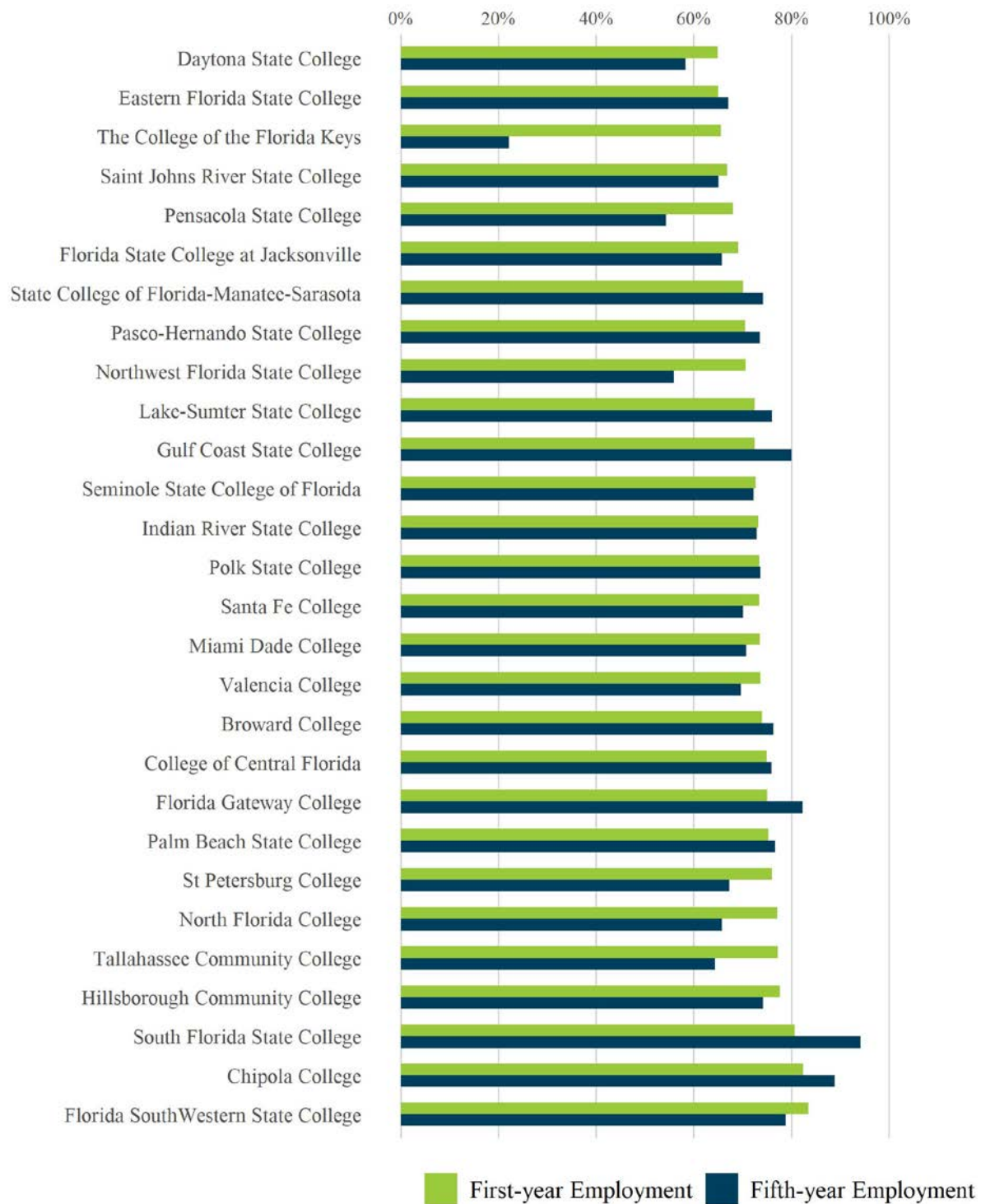


Figure 8. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Postsecondary Vocational Certificates, by FCS Institution



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 9 and 10 show outcomes for completers of applied technology diplomas from FCS institutions. First-year earnings were highest for those completing a diploma at The College of the Florida Keys (\$35,036) and lowest for those completing at Santa Fe College (\$21,412).

Figure 9. First- and Fifth-Year Earnings for Completers of Applied Technology Diplomas, by FCS Institution

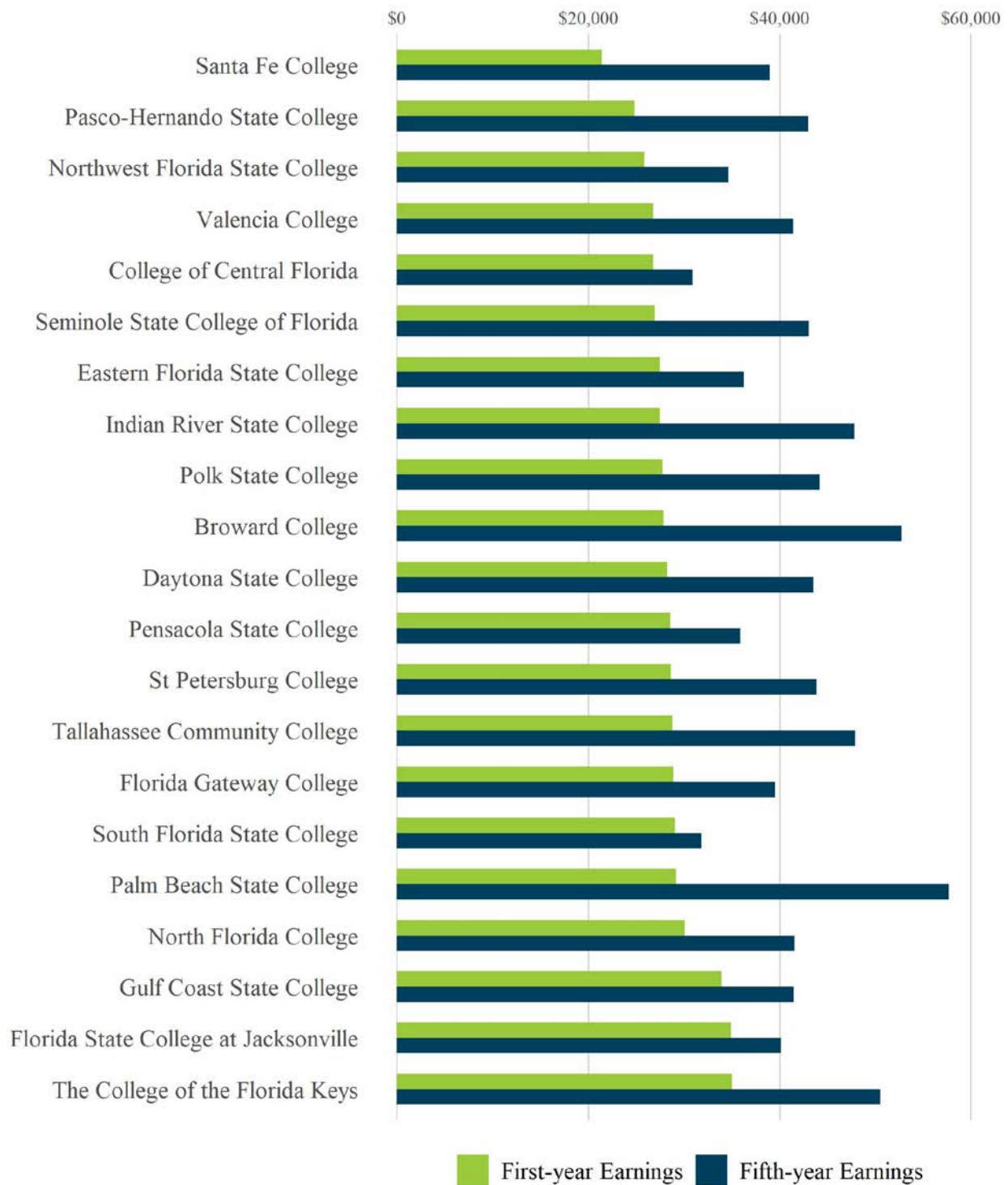
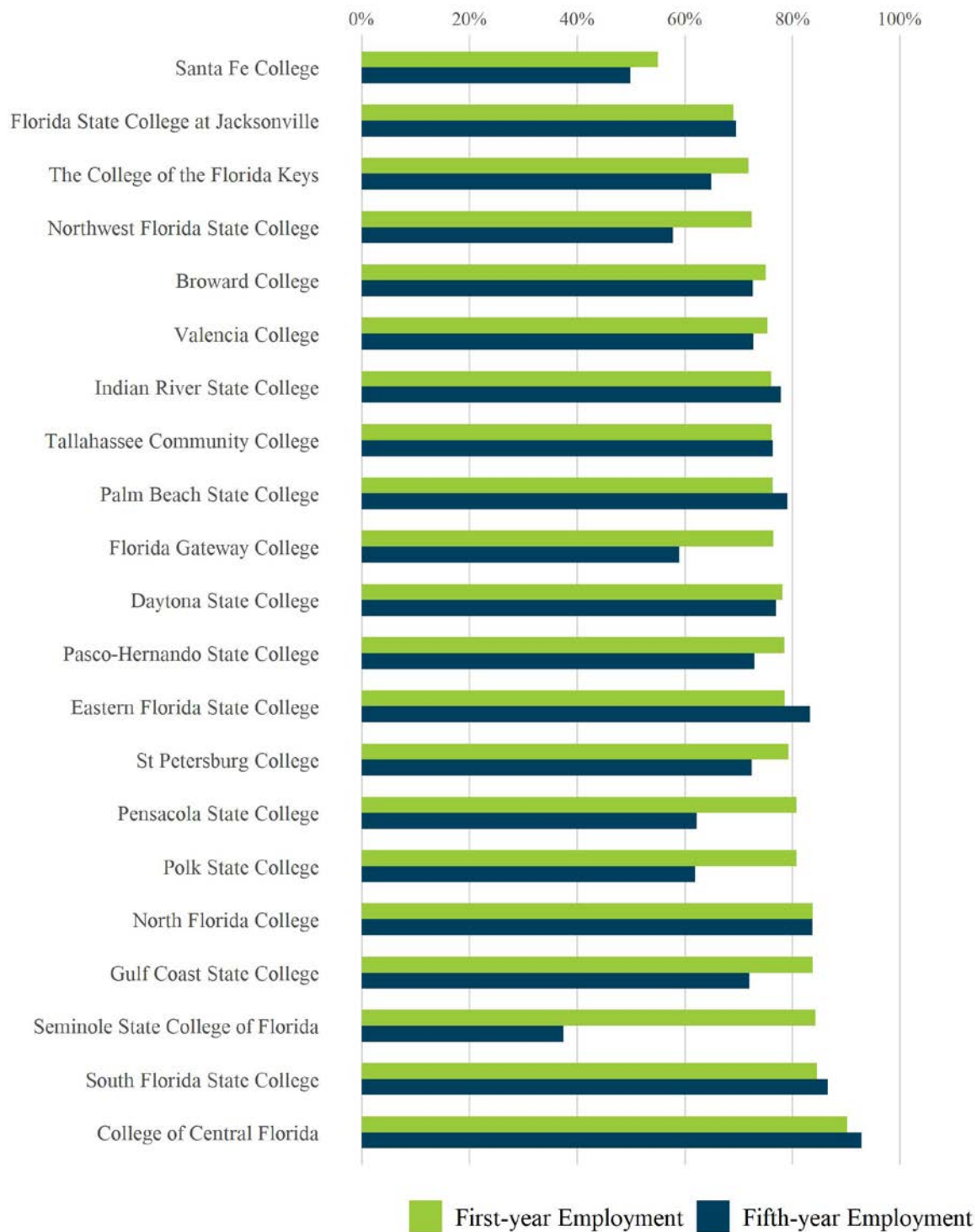


Figure 10. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Applied Technology Diplomas, by FCS Institution



Completers from the College of Central Florida were most likely to be found in the employment records both one year and five years after completion. Santa Fe College completers were least likely to be found one year after completion and exceeded only Seminole State College of Florida in the likelihood of appearing in the employment records five years after completion.

Figures 11 and **12** show outcomes for completers of applied technology diplomas at DTC institutions. First Coast Technical College completers saw the highest first-year earnings (\$33,604), and those from Orange Technical College-Mid Florida Campus saw the lowest (\$21,400).

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

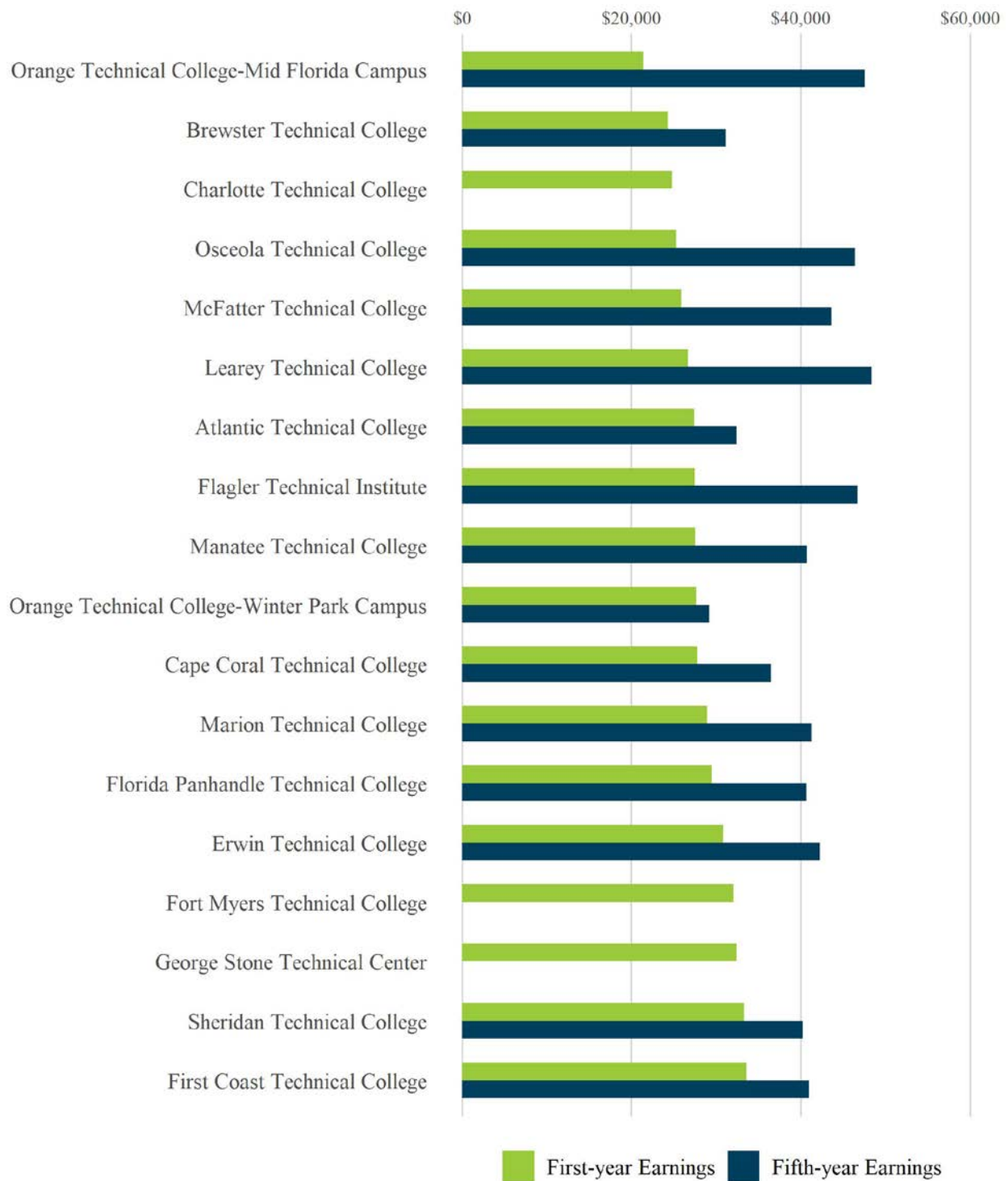
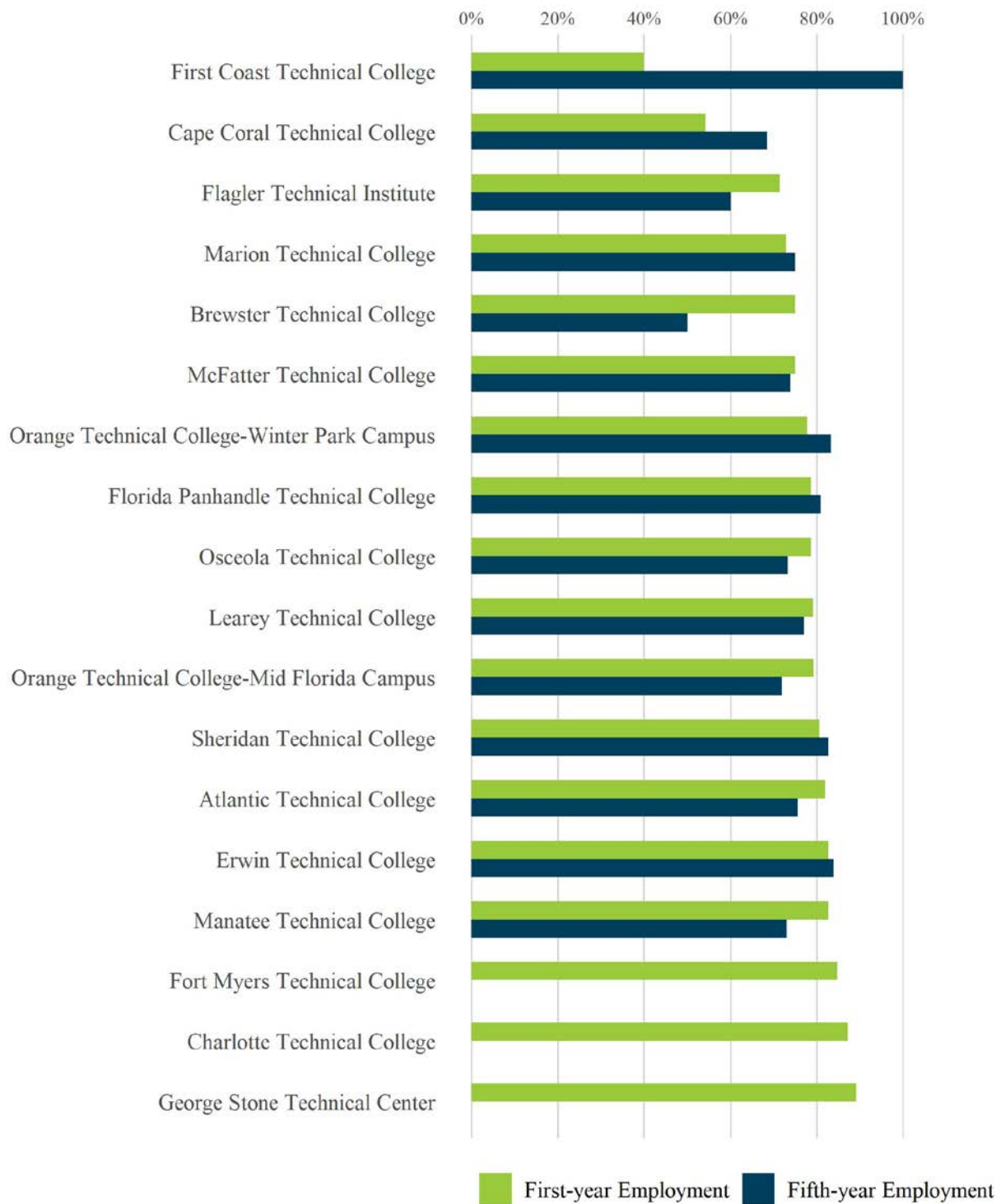


Figure 12. Percentage Found in Employment Data After 1 Year and 5 Years for Completers of Applied Technology Diplomas, by DTC Institutions



First Coast Technical College completers were the least likely to be found in the employment records one year after completion, but all completers were found five years after completion (for the 2012–13 cohort only). George Stone Technical College completers were the most likely to be found in the employment records one year after completion.

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 either DTCs 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 quite similar for completers of apprenticeships from both systems (FCS = \$45,440; DTC = \$43,828), although the difference was slightly more in favor for FCS apprenticeship completers compared with DTC completers for fifth-year wages (\$53,700 and \$49,292, respectively). We see similar levels of completers in the employment records as well: 85% for FCS and 82% for DTC completers. Five-year employment percentages were lower for both sets of completers (79% for FCS and 74% for DTC).

Figures 13 and **14** show employment outcomes for FCS apprenticeship completers. Daytona State College completers had the lowest first-year earnings (approximately \$35,000), while Hillsborough Community College completers had the highest (more than \$45,000). In addition, Daytona State College had the lowest percentage of completers found in the employment records one year after completion.

Figure 13. First- and Fifth-Year Earnings for FCS Apprenticeship Completers

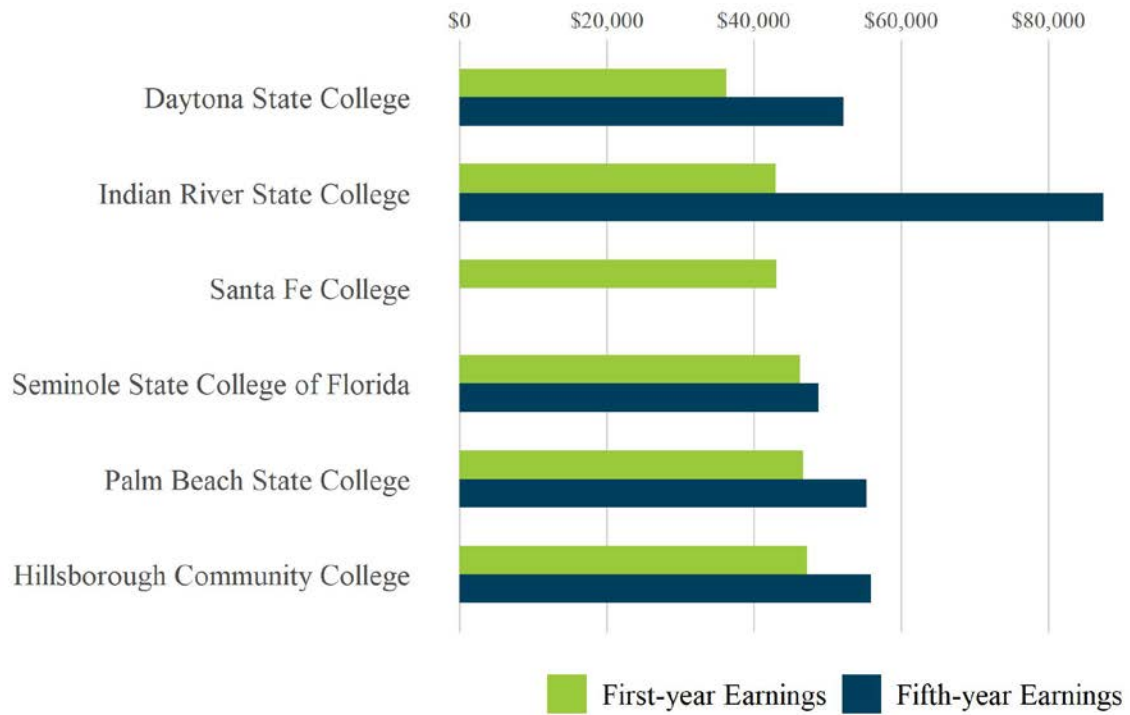
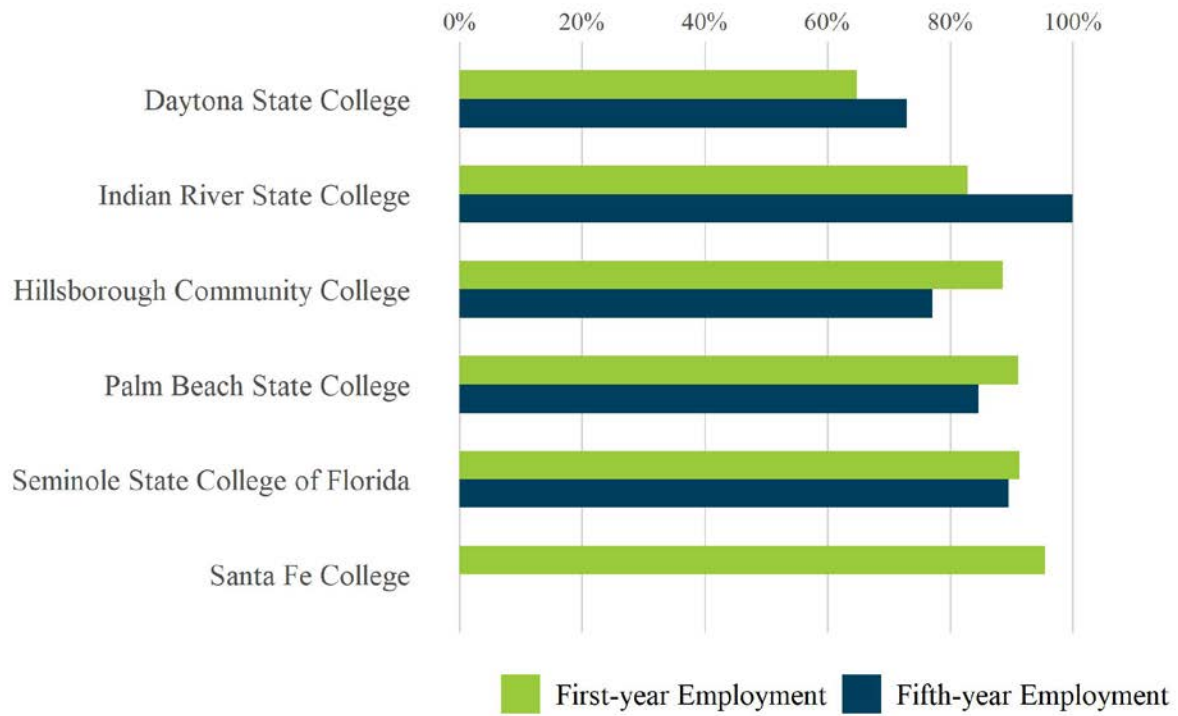


Figure 14. Percentage Found in Employment Data After 1 Year and 5 Years for FCS Completers of Apprenticeships



Figures 15 and 16 show employment outcomes for DTC apprenticeship completers. Clearly, significant variation exists between institutions.

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

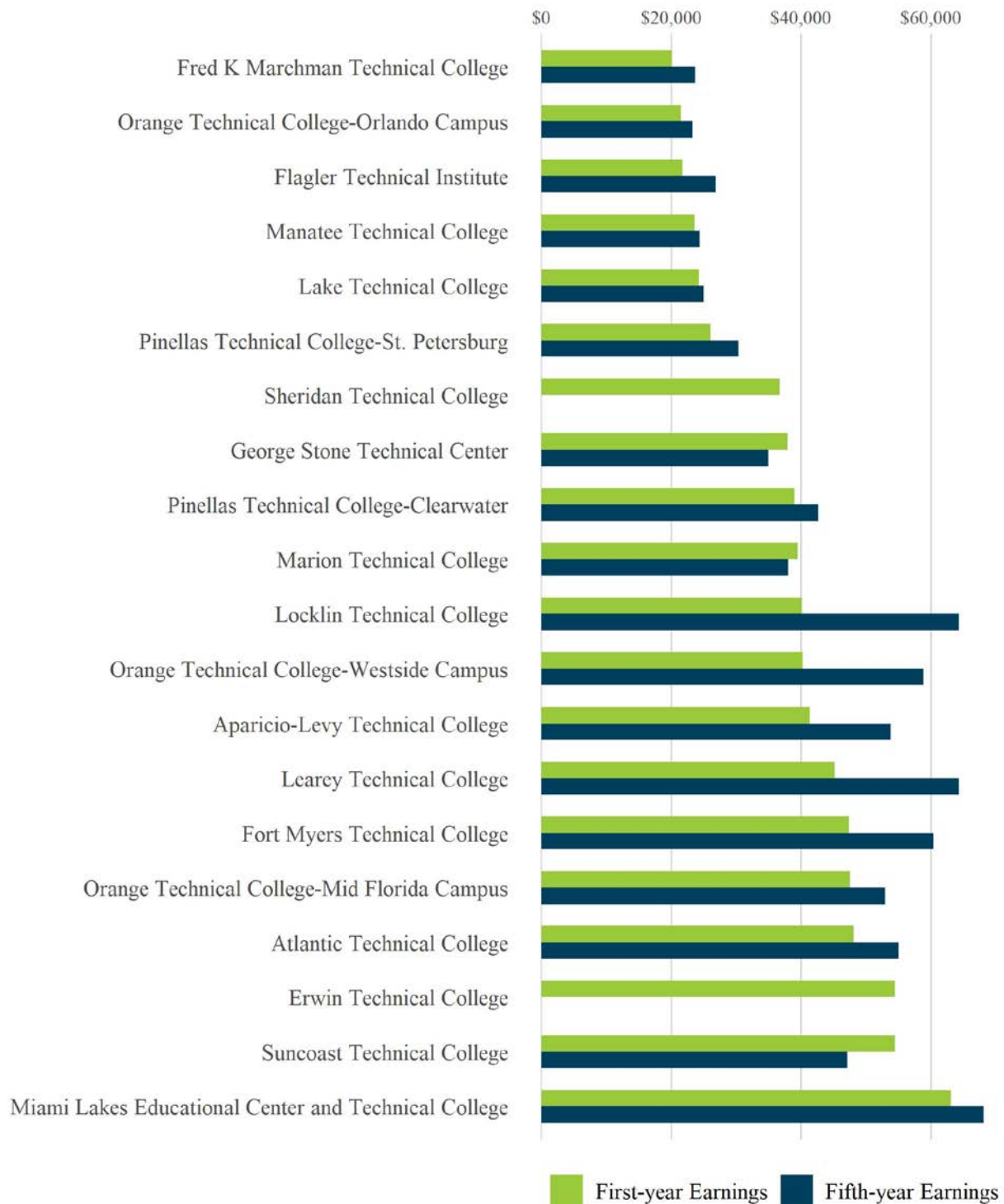
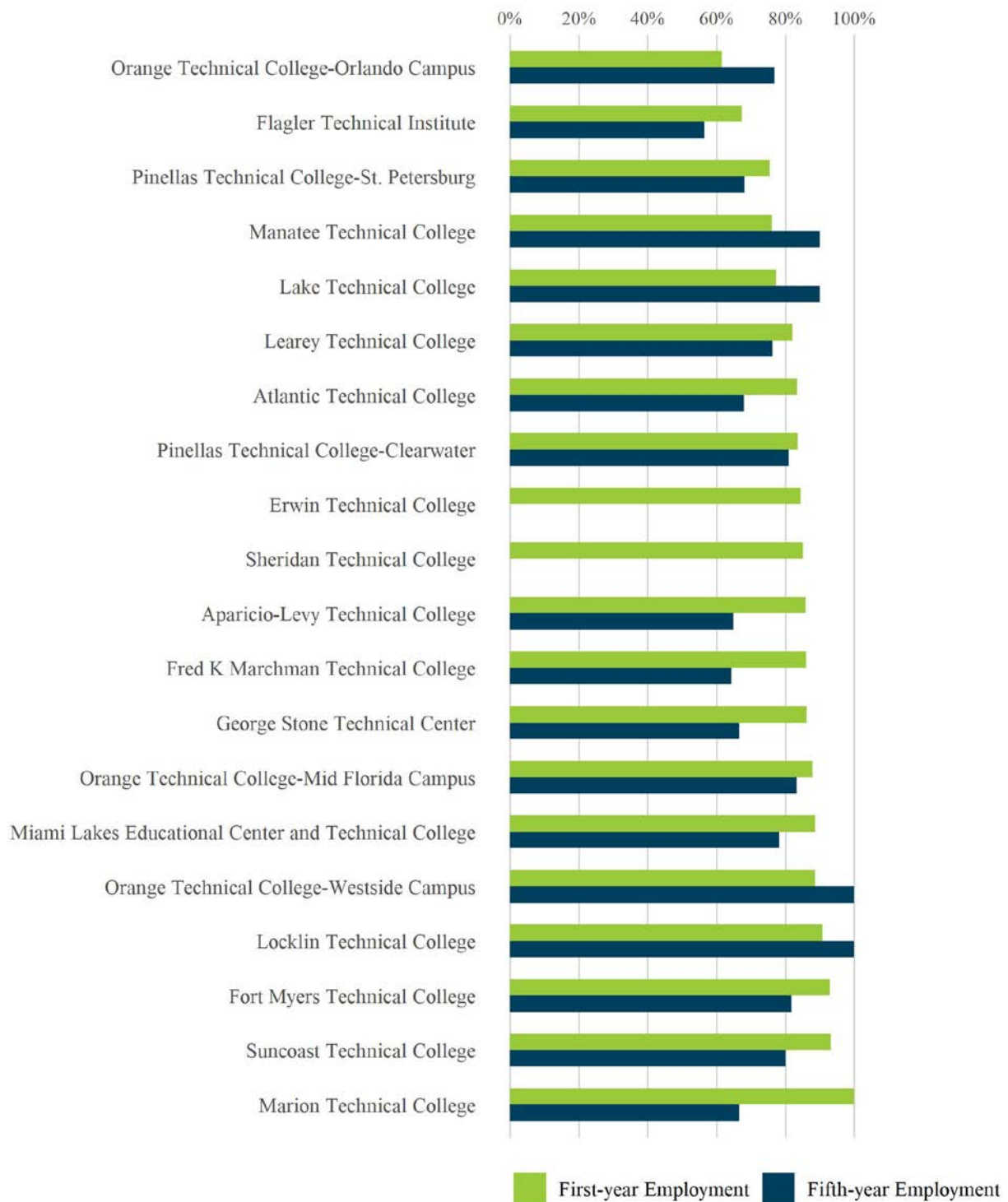


Figure 16. Percentage Found in Employment Data After 1 Year and 5 Years for DTC Completers of Apprenticeships



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 about \$22,000 (cosmetology) to about \$39,000 (commercial vehicle driving and law enforcement officer) for programs with the most completers (**Table 2A**), and from \$41,480 for industrial machinery maintenance 2 to \$56,180 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

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
Practical Nursing	7,328	\$35,140	85%	\$45,460	79%
Cosmetology	3,655	\$22,040	63%	NA	NA
Automotive Service Technology	2,230	\$26,040	71%	\$34,740	63%
Commercial Vehicle Driving	2,213	\$38,892	71%	\$44,576	57%
Child Care Center Operations	2,072	\$27,170	71%	NA	NA
Commercial Foods and Culinary Arts	2,056	\$23,148	71%	NA	NA
Nursing Assistant (articulated)	2,005	\$23,122	73%	NA	NA
Law Enforcement Officer	1,878	\$39,248	86%	\$48,696	78%
Phlebotomy	1,872	\$24,824	75%	NA	NA
Air Conditioning, Refrigeration, and Heating Technology	1,774	\$31,312	74%	NA	NA

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	224	\$56,180	98%	\$68,292	92%
Electrical and Instrumentation Technology 2	13	\$54,236	100%	\$55,936	50%
Paramedic	262	\$50,209	93%	NA	NA
Turbine Generator Maintenance, Inspection and Repair	62	\$48,428	79%	\$74,164	30%

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
Correctional Officer to Law Enforcement Officer (crossover)	310	\$45,636	83%	\$52,044	80%
Electroneurodiagnostic Technology	64	\$45,442	84%	NA	NA
Electrical and Instrumentation Technology	12	\$44,760	83%	NA	NA
Radiologic Technology	78	\$43,912	92%	NA	NA
Web Design	30	\$42,000	53%	\$40,788	53%
Industrial Machinery Maintenance 2	35	\$41,480	74%	\$47,460	75%

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 about \$40,000, whereas cosmetology and patient care assist completers were close to \$21,000 (**Table 3A**). For programs with the highest first-year median earnings, the range was from \$60,052 for transit technician 3 to \$43,748 for police service aide (**Table 3B**). The popular programs listed in **Table 3A** (which represent 28,036 graduates) tend to pay substantially less than the programs listed in **Table 3B** (which represent 974 graduates).

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

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
Law Enforcement Officer	10,208	\$43,300	88%	\$52,796	81%
Correctional Officer	3,529	\$40,580	93%	\$45,656	83%
Fire Fighter	3,388	\$35,832	86%	\$54,468	88%
Practical Nursing	2,533	\$35,392	86%	\$46,252	80%
Cosmetology	2,029	\$21,358	64%	\$29,246	44%
Insurance Customer Service Representative	1,846	\$29,144	78%	\$36,344	69%
Phlebotomy	1,614	\$24,632	73%	\$32,276	72%
Patient Care Assistant	1,133	\$21,476	68%	\$28,360	67%
Commercial Vehicle Driving	934	\$36,340	65%	\$41,244	50%

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
Firefighter I/II	822	\$38,476	89%	NA	NA

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
Transit Technician 3	20	\$60,052	90%	\$76,904	100%
Transit Technician 2	24	\$59,588	100%	\$76,904	100%
Firefighting—Pump Operator Specialty	198	\$58,840	96%	NA	NA
Transit Technician 1	32	\$56,956	94%	\$44,696	100%
Auxiliary Law Enforcement Officer	125	\$55,800	81%	\$138,424	80%
Heavy Equipment Mechanics	18	\$55,336	100%	NA	NA
Paramedic	25	\$54,880	100%	\$72,344	92%
Avionics 2	117	\$45,352	68%	\$65,344	68%
Law Enforcement Officer to Correctional Officer (crossover)	291	\$43,984	93%	\$47,076	78%
Police Service Aide	124	\$43,748	93%	\$53,524	89%

Table 4A identifies the median first-year earnings of completers with the most popular postsecondary vocational certificates. Completers of postsecondary vocational certificates in child care provider/assistant had the lowest median first-year earnings (\$26,120). At the high end of the scale, completers of postsecondary vocational certificates in emergency medical technology/technician (EMT paramedic) had median first-year earnings of approximately \$37,500 and median five-year earnings of \$55,000. 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 \$78,448 and for fire services administration was \$71,872. This clearly shows the certificate/program is key to salary outcomes (a \$52,328 difference between child care 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	14,768	\$33,452	72%	\$40,572	70%
EMT Paramedic	10,043	\$37,516	85%	\$55,028	82%
Accounting Technology/Technician and Bookkeeping	8,578	\$33,156	72%	\$41,016	68%
Entrepreneurship/Entrepreneurial Studies	4,476	\$33,232	71%	\$39,200	66%
Child Care Provider/Assistant	3,330	\$26,120	71%	\$30,252	70%
Information Technology	3,216	\$35,908	70%	\$44,656	67%
Office Management and Supervision	3,159	\$28,184	69%	\$32,792	69%
Biotechnology	2,544	\$33,328	70%	\$51,228	74%
Chemical Technology/Technician	1,960	\$31,156	67%	\$43,460	57%
Small Business Administration/Management	1,884	\$31,364	72%	\$42,224	76%

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	344	\$78,448	95%	NA	NA
Fire Services Administration	147	\$71,872	88%	\$69,528	86%
Medical Radiologic Technology/Science—Radiation Therapist	73	\$54,388	89%	\$69,792	79%
Quality Control Technology/Technician	181	\$51,576	90%	\$70,060	74%
Nuclear Medical Technology/Technologist	36	\$49,956	83%	\$73,072	89%
Banking and Financial Support Services	70	\$49,572	94%	\$60,188	85%
Sustainability Studies	37	\$49,288	59%	\$58,060	100%

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
Electrical and Power Transmission Installation/Installer—General	28	\$48,016	82%	\$52,004	100%
Automation Engineer Technology/Technician	56	\$45,320	89%	\$57,488	43%
Manufacturing Engineering Technology/Technician	128	\$44,388	80%	\$23,576	43%

Applied Technology Diplomas are offered in only a few programs (8 at FCS institutions and 12 at DTC institutions), so outcomes for the all programs are shown in **Table 5**, divided by educational system. Certificates related to EMT were the most common in both systems. Median first-year earnings ranged from \$25,600 to approximately \$36,000 for completers from FCS, and \$24,276 to approximately \$36,000 for completers from DTC, indicating that both systems' completers had a similar range of earnings.

Table 5. First and Fifth-Year Employment Outcomes for Completers of an Applied Technology Diploma

A. 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
EMT Paramedic	6,518	\$28,156	78%	\$46,452	75%
Dental Assisting/Assistant	340	\$27,448	81%	\$32,192	78%
Health Information/Medical Records Technology/Technician	300	\$27,028	69%	\$32,964	58%
Pharmacy Technician/Assistant	162	\$25,600	80%	\$29,736	64%
Clinical/Medical Social Work	21	\$29,892	90%	NA	NA
Golf Course Operation and Grounds Management	21	\$36,224	81%	\$50,880	40%
Plant Protection and Integrated Pest Management	16	\$31,992	94%	\$54,684	100%
Customer Service Management	10	\$32,164	50%	\$22,340	60%

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 (basic)	816	\$25,180	75%	\$47,756	75%
EMT (basic)—ATD	346	\$28,448	79%	NA	NA
EMT—ATD	336	\$29,668	79%	NA	NA
Medical Coder/Biller	248	\$27,968	75%	\$34,596	75%
Dental Assisting Technology and Management—ATD	210	\$27,640	90%	NA	NA
Medical Coder/Biller—ATD	208	\$30,728	78%	NA	NA
Dental Assisting Technology and Management	142	\$26,068	87%	\$32,440	75%
Medical Clinical Laboratory Technician	91	\$35,924	85%	\$48,920	83%
Pharmacy Technician	55	\$25,268	87%	\$29,004	85%
Medical Record Transcribing	20	\$28,400	65%	\$32,464	50%
Unit Treatment and Rehabilitation	12	\$24,276	75%	\$31,172	50%
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. Child care 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 of Apprenticeships 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
Child Care Provider/Assistant	81	\$22,412	47%	\$26,372	53%
Electrician	352	\$43,772	93%	\$53,204	86%
Heating, Air Conditioning, Ventilation, and Refrigeration Maintenance Technology/ Technician	108	\$46,684	94%	\$56,012	100%
Pipefitting/Pipefitter and Sprinkler Fitter	90	\$44,832	89%	\$53,468	78%

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
Plumbing Technology/Plumber	163	\$60,228	77%	\$66,256	68%
Sheet Metal Technology/Sheetworking	13	\$39,132	92%	\$49,360	75%

Table 7 shows the 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 \$51,000. Other similarly lucrative apprenticeships were also in the top 10 most common—fire fighter; structural steel worker; and air conditioning, refrigeration and heating technology (PS)—APPR. The top 10 apprenticeships from DTCs where completers had the highest first-year earnings included heavy equipment operation and elevator constructor mechanic, which also had high levels of first-year employment (94% and 92%, respectively). There is a spread of \$68,120 between Heavy Equipment Operation (\$88,920) and Early Childhood Education (\$20,800), 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)

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
Electrician	888	\$51,020	89%	\$58,676	78%
Early Childhood Education—APPR	857	\$22,420	72%	NA	NA
Early Childhood Education	599	\$20,800	69%	\$24,492	71%
Plumbing Technology	467	\$49,576	91%	\$64,144	85%
Air Conditioning, Refrigeration, and Heating Technology (PS)—APPR	362	\$52,316	87%	NA	NA
Pre-Apprenticeship	221	\$33,648	76%	NA	NA
Air Conditioning, Refrigeration, and Heating Technology	220	\$48,468	86%	\$66,496	79%
Structural Steel Work—APPR	151	\$52,464	83%	NA	NA
Firefighter	118	\$57,516	98%	\$71,376	100%

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
Carpentry	102	\$45,860	83%	\$55,012	60%

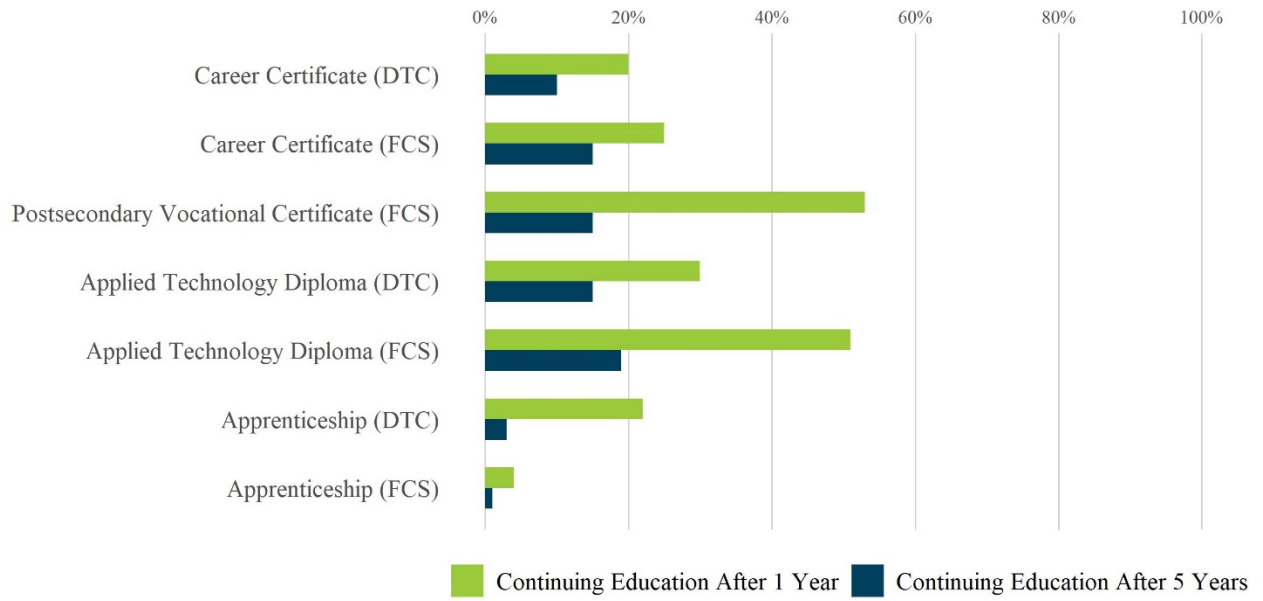
B. Top 10 Apprenticeships By Median First-Year Earnings

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
Heavy Equipment Operation	51	\$88,920	94%	\$108,920	89%
Elevator Constructor Mechanic	49	\$88,660	92%	\$99,144	83%
Millwright	67	\$78,280	94%	\$76,612	75%
Electrical Line Service and Repair—APPR	34	\$76,280	97%	NA	NA
Industrial Machinery Maintenance	10	\$62,140	100%	NA	NA
Firefighter	118	\$57,516	98%	\$71,376	100%
Commercial and Industrial Insulation	18	\$53,572	94%	\$36,268	60%
Structural Steel Work—APPR	151	\$52,464	83%	NA	NA
Air Conditioning, Refrigeration, and Heating Technology (PS)—APPR	362	\$52,316	87%	NA	NA
Electrician	888	\$51,020	89%	\$58,676	78%

Continuing Education of Certificates/Diplomas/Apprenticeships Students

Figure 17 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 17. 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 2012–13 to 2016–17), 354,046 students were awarded an Associate degree or Advanced Technical Certificate from one (or more) of these institutions. This is the largest class (36%) 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.
- **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 36% 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, nearly 280,000 AA degrees were awarded during the study period, compared with approximately 70,000 AS degrees and 4,100 AAS degrees. ATC were quite rare in the completion data, with only 999 completers across the five cohorts.

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

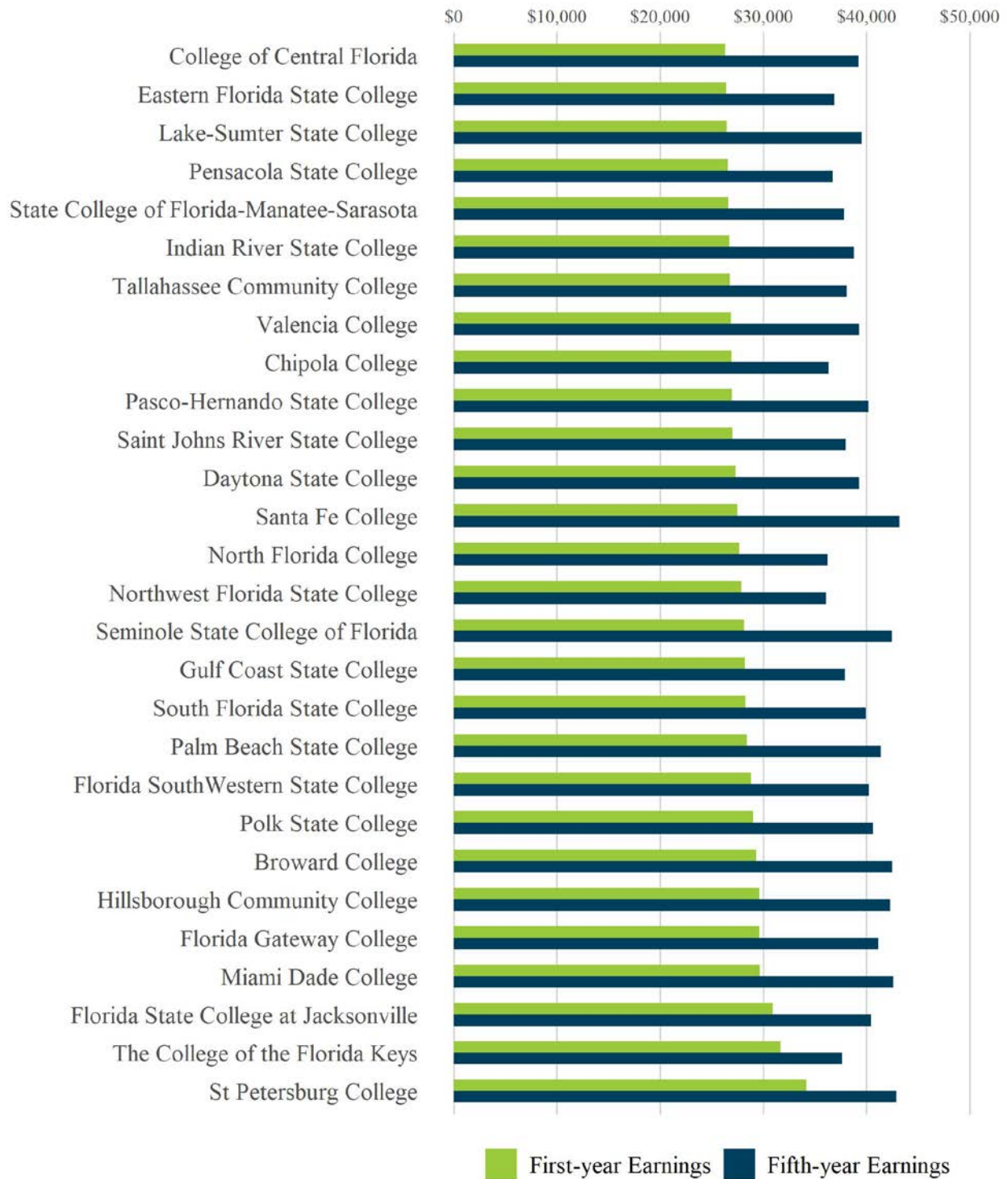
Name	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
AA Degree	279,256	\$28,612	66%	\$40,584	67%
AS Degree	69,683	\$45,348	81%	\$53,724	74%
AAS Degree	4,108	\$34,696	75%	\$43,592	66%
ATC	999	\$45,588	84%	\$55,848	68%

Associate in Arts Degree Outcomes

Within the different associate degrees, the most common in Florida is the AA with nearly 280,000 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 \$28,000. **Figure 18** displays the median first-year earnings of graduates with AA degrees from specific colleges in Florida. Nearly \$8,000 separates the median first-year earnings of graduates from the college with the lowest (Central Florida Community College, \$26,328) and highest earning graduates with AA degrees (St. Petersburg College, \$34,180). However, after five years, the difference between graduates from these two institutions is reduced to approximately \$3,650.

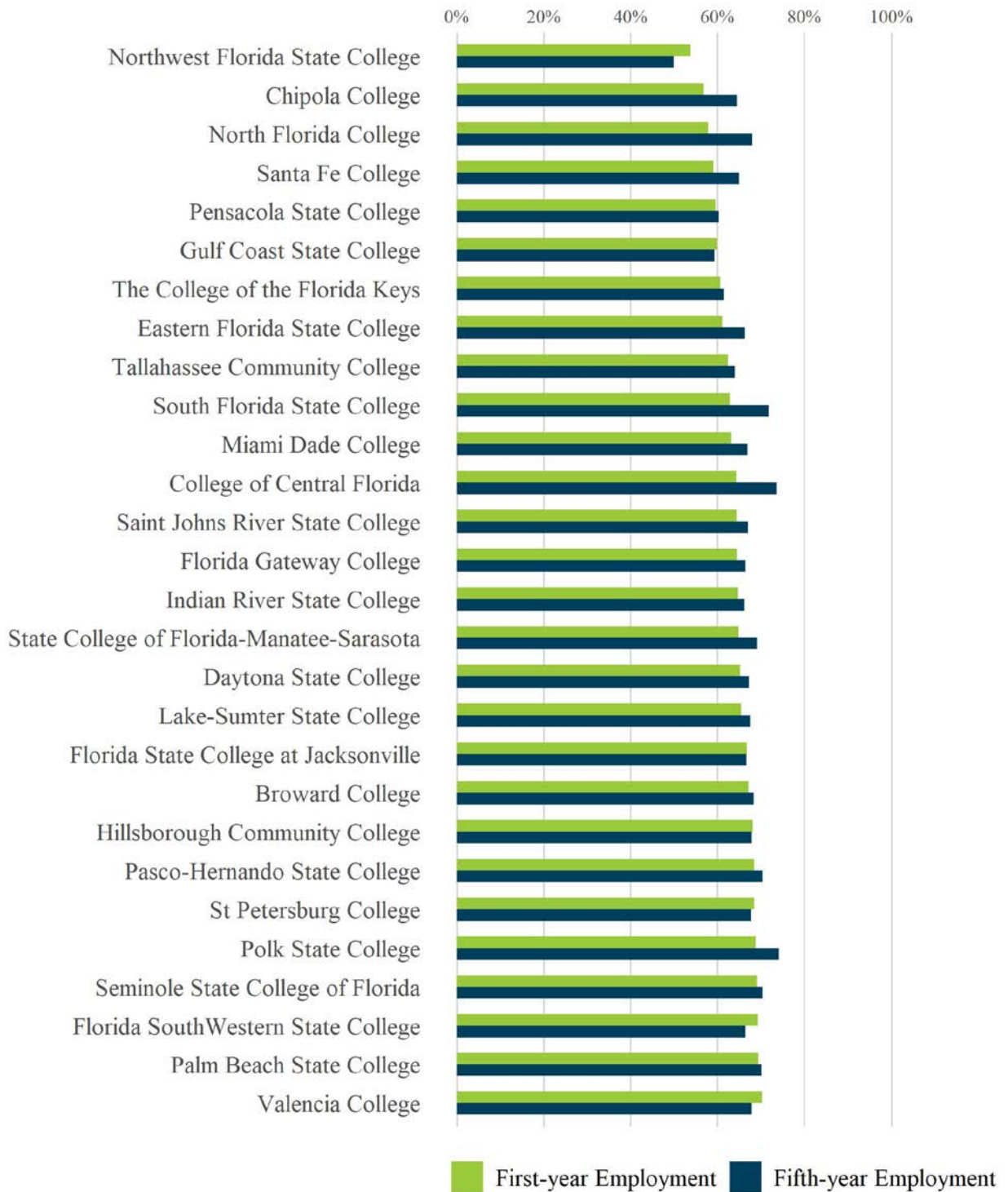
Figure 18. Median First- and Fifth-Year Earnings of Graduates with AA Degrees, by College



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

Figure 19 shows that employment outcomes also varied across institutions, ranging from 54% for AA graduates from Northwest Florida State College to 70% for AA graduates from Valencia College one year after completion.

Figure 19. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with AA Degrees, by FCS Institution



Associate in Science Degree Outcomes

After the AA degree, the next most common associate degree awarded in Florida is the AS degree. Nearly 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 20 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 four colleges (Florida SouthWestern State College, Florida Gateway 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 two colleges (Tallahassee Community College and 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 Broward College AS completers showing the largest increase, and North Florida College actually showing lower fifth-year median earnings.

Figure 20. Median First and Fifth-Year Earnings of Graduates with AS Degrees, by FCS Institution

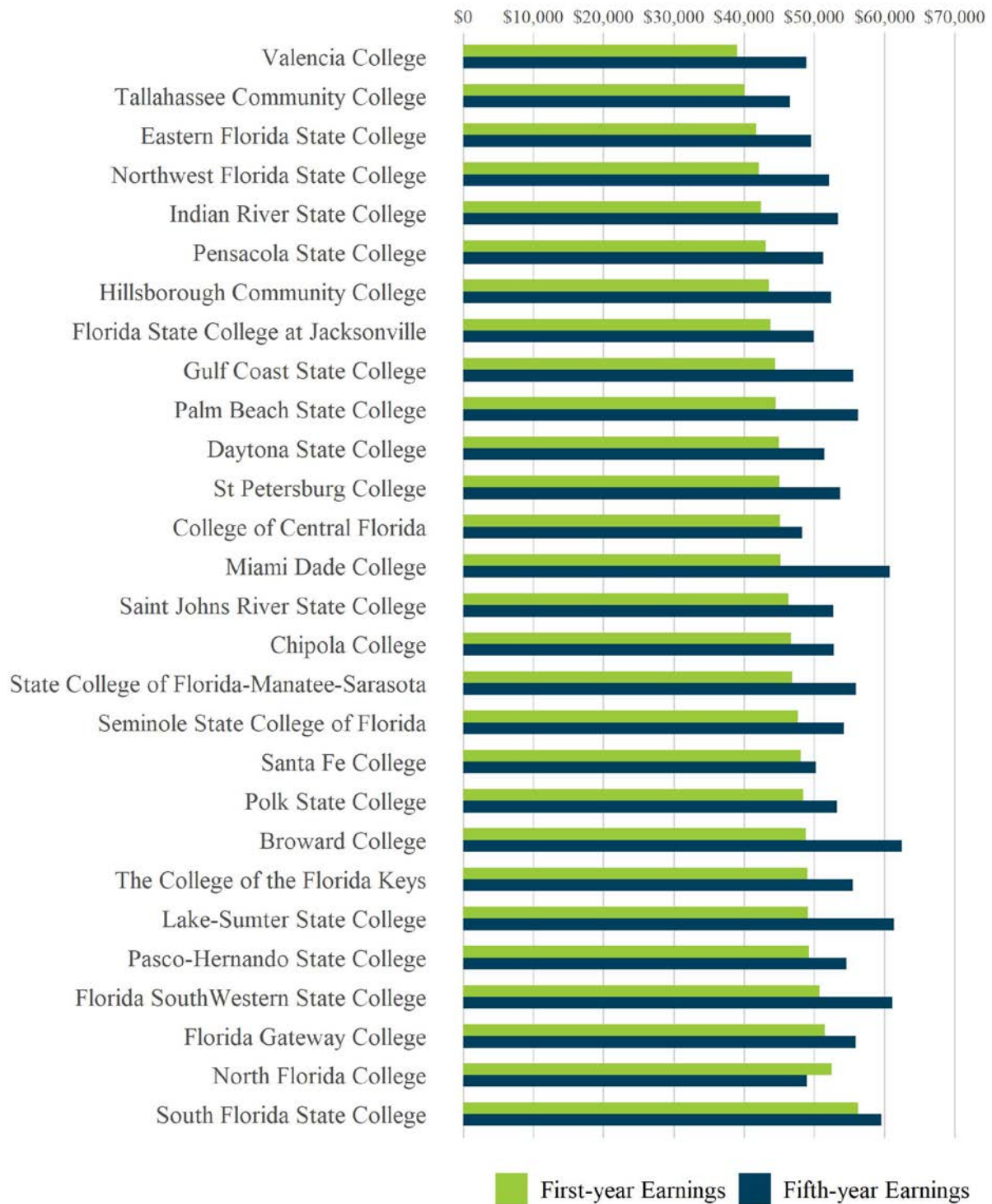
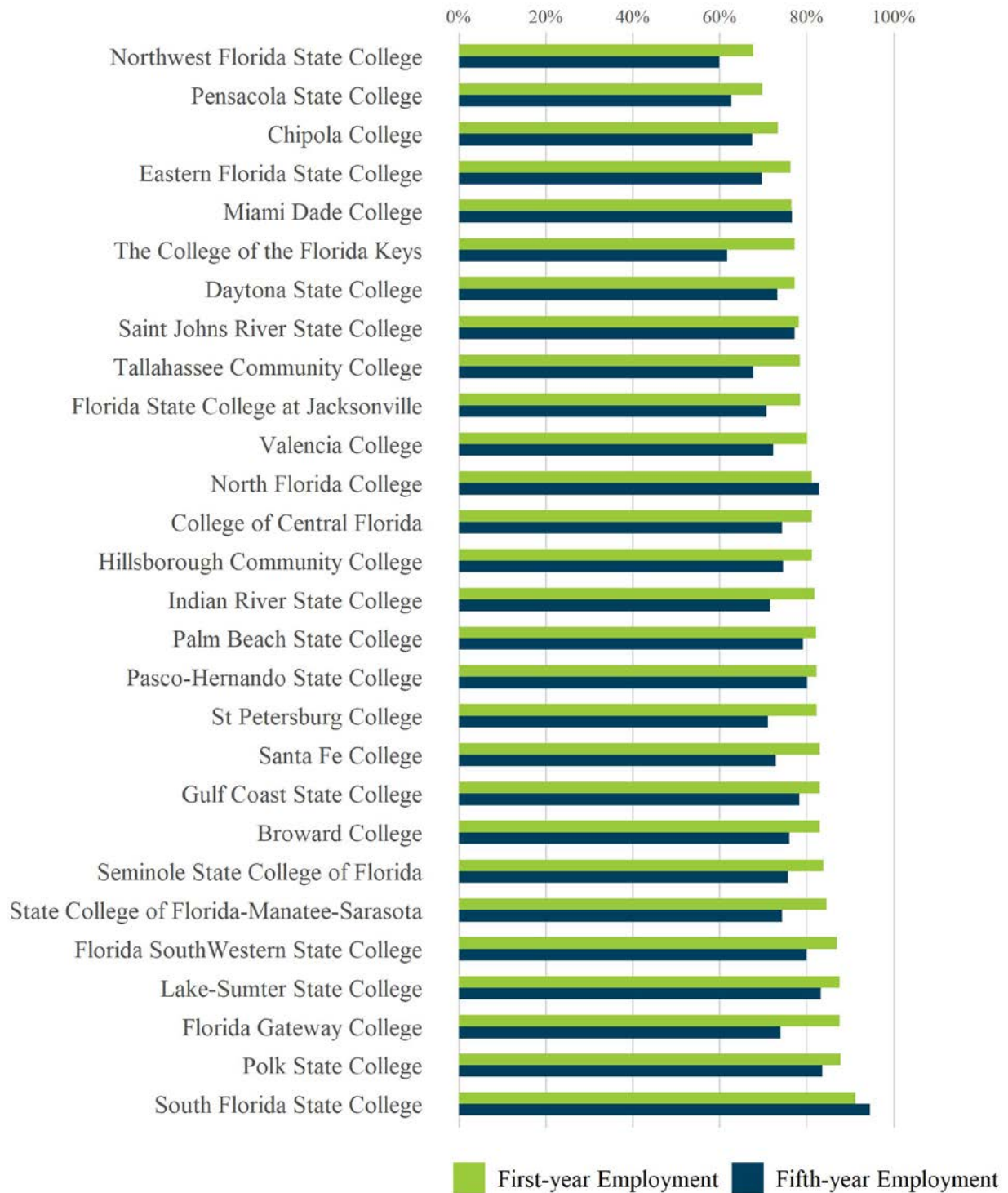


Figure 21 shows the percentage of graduates of AS degrees found in the employment records by institution. South Florida graduates were more likely to be found both one and five years after completion.

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



Associate in Applied Science Degree Outcomes

More than 4,000 students in Florida earned AAS degrees from academic years 2012–13 to 2016–17. The AAS degree focuses on training students for direct entry into a specialized occupation in the workplace.

The median statewide first-year earnings of graduates with AAS degrees were \$34,696, which is approximately \$6,000 higher than those of graduates with AA degrees (\$28,612) but more than \$10,000 lower than those with AS degrees (\$45,348). **Figure 22** 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 \$29,400 (Daytona State College) to more than \$45,000 (Hillsborough Community College).

Graduates with AAS degrees from two colleges (Daytona 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 two colleges (South Florida State College and Hillsborough Community College) were more than \$40,000 (**Figure 22**).

Figure 22. Median First- and Fifth-Year Earnings of Completers of AAS Degrees, by FCS Institution

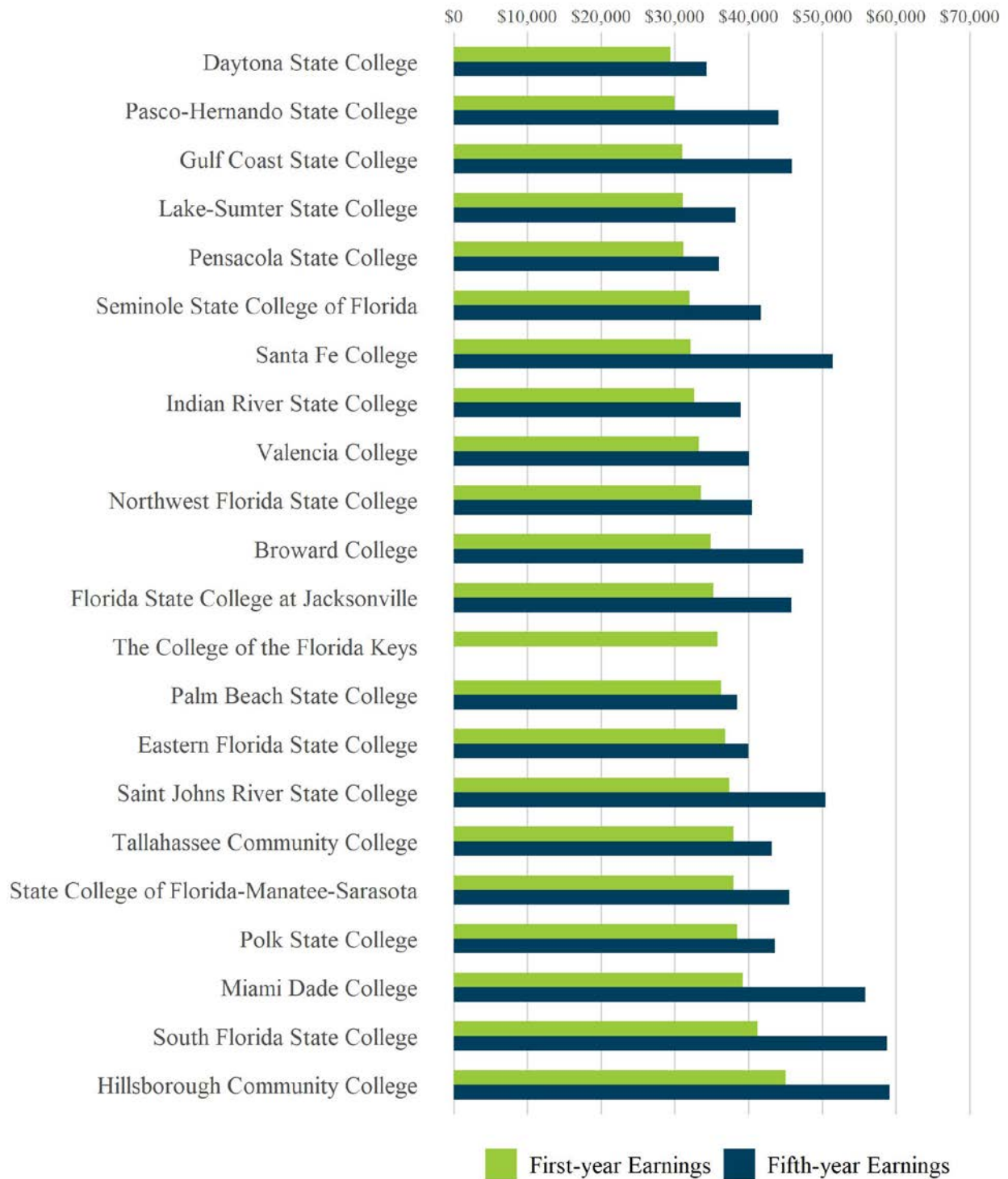
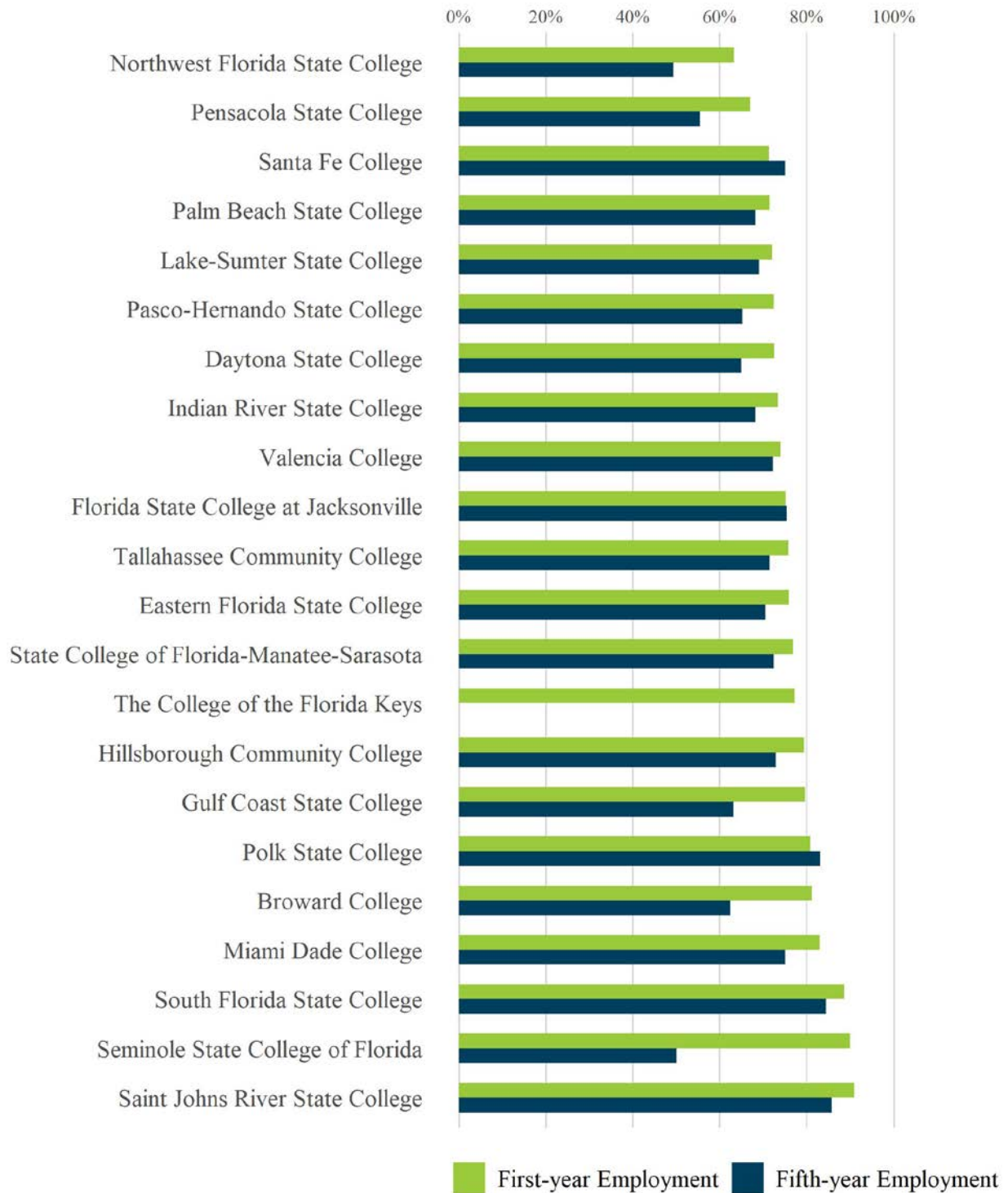


Figure 23. Percentage Found in Employment Data After 1 Year and After 5 Years for Completers of AAS Degrees, by FCS Institution



Advanced Technical Certificates Outcomes

The highest median first-year earnings (\$45,558) were achieved by the 999 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 24**. Completers from Valencia College had the highest first-year earnings, at approximately \$52,000; graduates from the next highest institution, St. Petersburg College (\$50,624), also showed the steepest increase between first- and fifth-year earnings (ending up at more than \$74,000). However, it should be noted that fifth-year earnings data were unavailable for many institutions.

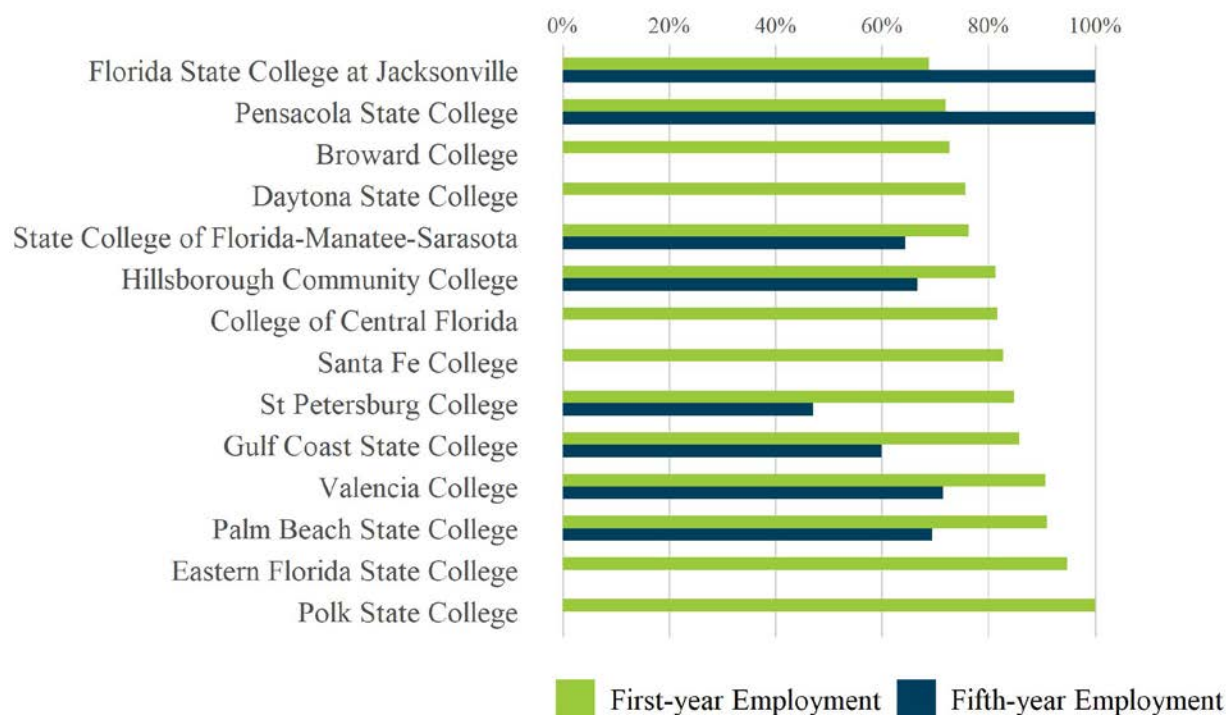
Figure 24. Median First- and Fifth-Year Earnings of Completers of ATC, by FCS Institution



Completers of ATC appeared in the employment records at a high rate, from nearly 70% for Florida State College at Jacksonville to 100% for Polk State College graduates (**Figure 25**). 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, or a state within the WRIS2 consortium for the 2012-13, 2013-14, and 2014-15 cohort years).

Figure 25. 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 studies⁵). 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 nursing also is one of the highest paying of the common AS degrees, with median first year earnings of more than \$52,000. However, completers of physician assistant AS programs earn nearly twice this amount, with median first-year earnings of \$91,628.⁶

⁵ 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.

⁶ 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.

Along with emergency medical technology/technician (EMT paramedic), completers of registered nursing/registered nurse AS degrees also were highly likely to be found in employment records one year after completion. 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

A. Ten Most Popular 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
Registered Nursing/Registered Nurse	23,581	\$52,784	89%	\$62,380	80%
Criminal Justice/Law Enforcement Administration	3,148	\$35,276	79%	\$43,504	72%
Business Administration and Management—General	2,932	\$33,824	72%	\$43,792	70%
Legal Assistant/Paralegal	2,784	\$32,660	76%	\$39,656	69%
EMT Paramedic	2,404	\$55,504	94%	\$69,712	87%
Medical Radiologic Technology/Science—Radiation Therapist	2,070	\$42,248	88%	\$49,932	77%
Information Technology	1,743	\$35,764	70%	\$48,272	65%
Dental Hygiene/Hygienist	1,599	\$44,508	82%	\$53,304	76%
Physical Therapy Technician/Assistant	1,530	\$43,580	80%	\$51,740	71%
Early Childhood Education and Teaching	1,484	\$25,372	72%	\$29,716	64%

B. Top 10 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
Physician Assistant ⁷	233	\$91,628	72%	\$104,828	70%
Fire Prevention and Safety Technology/Technician	778	\$70,368	90%	\$79,076	88%
EMT Paramedic	2,404	\$55,504	94%	\$69,712	87%
Operations Management and Supervision	264	\$54,156	55%	\$57,812	47%
Cardiovascular Technology/Technologist	377	\$53,976	85%	\$65,064	75%
Registered Nursing/Registered Nurse	23,581	\$52,784	89%	\$62,380	80%
Information Technology Project Management	57	\$49,668	77%	\$74,808	80%
Clinical/Medical Laboratory Technician	504	\$48,624	88%	\$54,232	82%
Respiratory Care Therapy/Therapist	1,477	\$48,048	88%	\$51,768	80%
Diagnostic Medical Sonography/Sonographer and Ultrasound Technician	436	\$47,132	80%	\$58,012	82%

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 \$27,400 (computer graphics) to \$47,000 (operations management and supervision). Note, however, that although automobile/automotive mechanics technology/technician completers have mid-range first-year earnings, they show the steepest increase from one to five-year earnings and have the highest median five-year earnings of the top 10 most popular programs. Across the top 10 AAS programs, there is a large variation in median first-year wages: nearly \$80,000 for the top program (fire prevention and safety technology/technician) to approximately \$39,500 for the lowest of the 10 (medical radiologic technology/science—radiation therapist). The program of study is by far the most important determiner of first-year earnings for completers of AAS degrees, as opposed to institution.

⁷ 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 Popular AAS 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
Business Administration and Management—General	484	\$35,100	74%	\$37,792	71%
Aviation/Airway Management and Operations	265	\$32,608	81%	\$48,960	52%
Office Management and Supervision	264	\$30,380	71%	\$33,340	62%
Criminal Justice/Law Enforcement Administration	242	\$37,840	76%	\$44,708	69%
Medical Radiologic Technology/Science—Radiation Therapist	225	\$39,564	87%	\$50,872	79%
Automotive Engineering Technology/Technician	219	\$30,448	76%	\$50,232	73%
Automobile/Automotive Mechanics Technology/Technician	162	\$35,280	90%	\$58,144	56%
Operations Management and Supervision	147	\$47,288	63%	\$50,232	48%
Electrical, Electronic and Communications Engineering Technology/Technician	137	\$34,628	70%	\$47,228	53%
Computer Graphics	122	\$27,480	64%	\$34,280	54%

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	32	\$79,812	100%	\$79,816	100%
Electrical and Power Transmission Installation/Installer—General	10	\$62,472	90%	\$111,328	100%
Registered Nursing/Registered Nurse	36	\$54,376	100%	\$64,424	88%
EMT Paramedic	90	\$53,468	93%	\$69,476	86%

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	147	\$47,288	63%	\$50,232	48%
Small Business Administration/Management	21	\$46,292	67%	\$36,924	75%
Respiratory Care Therapy/Therapist	34	\$45,288	88%	\$51,016	83%
Nuclear Medical Technology/Technologist	39	\$42,572	85%	\$60,764	81%
Diesel Mechanics Technology/Technician	40	\$41,156	75%	NA	NA
Medical Radiologic Technology/Science—Radiation Therapist	225	\$39,564	87%	\$50,872	79%

Tremendous variation also exists in the rate of completers being found in the employment records, with operations management and supervision program completers at about 63% compared with fire prevention and safety technology/technician and registered nursing/registered nurse completers at 100%. Clearly, the program of study plays a large role in whether students enter the workforce immediately after completing their degree. However, it is important to remember that a completer who is not found in the employment records may be pursuing other educational opportunities or may be self-employed, employed outside the WRIS2 system or excluded from the WRIS2 data for the 2015-16 and 2016-17 cohort years, or employed in an office that does not report employment data to Office of Personnel Management (OPM).

Advanced Technical Certificates (ATC) are offered in only 12 programs, so **Table 11** shows all programs rather than the most popular or highest-earning. First-year earnings varied considerably, from \$25,400 for completers of transportation/mobility management to more than \$53,000 for completers of registered nursing/registered nurse.

Table 11. First- and Fifth-Year Employment Outcomes for Completers of ATC

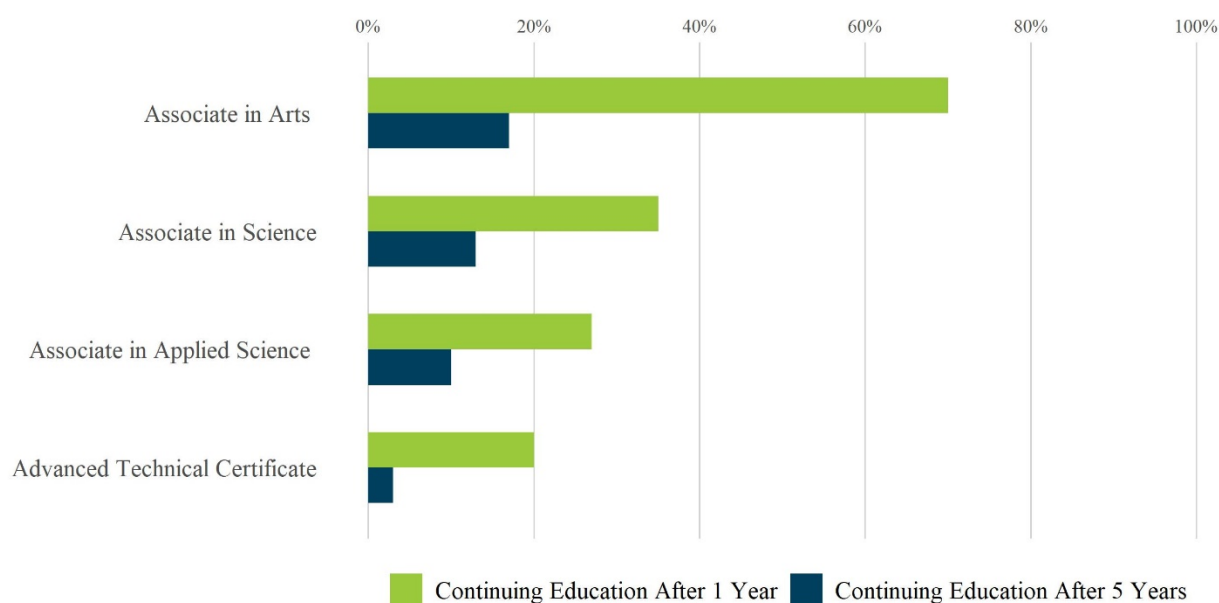
Program	Total Completers	Median First-Year Earnings	Percentage Found in Employment Data After 1 Year	Median Fifth-Year Earnings	Percentage Found in Employment Data After 5 Years
Registered Nursing/Registered Nurse	54	\$53,064	78%	\$64,524	64%
Child Care and Support Services Management	17	\$50,368	100%	NA	NA

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
Medical Radiologic Technology/ Science—Radiation Therapist	378	\$49,780	90%	\$58,772	70%
Information Technology	28	\$46,532	71%	NA	NA
Respiratory Care Therapy/Therapist	29	\$44,580	79%	NA	NA
Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician	31	\$43,016	87%	\$54,768	82%
Environmental Science	22	\$42,428	73%	NA	NA
Funeral Service and Mortuary Science—General	58	\$44,148	83%	\$68,432	67%
Computer and Information Systems Security/Information Assurance	43	\$39,572	91%	NA	NA
Legal Assistant/Paralegal	146	\$37,500	79%	\$50,428	66%
Health/Health Care Administration/ Management	152	\$35,896	79%	NA	NA
Transportation/Mobility Management	19	\$25,400	84%	NA	NA

Continuing Education of Associate Degree Students

Figure 26 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 (70%). AS degree completers were somewhat more likely to be enrolled (33%) than AAS degree completers (25%), 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 26. 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, about 64% per year more than high school graduates, and graduates with bachelor's degrees are far less likely to be unemployed.⁸

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 [Florida's Launch My Career](#) 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 2012–13 to 2016–17), 330,812 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 32,866 bachelor's degrees, which is approximately 10% of the bachelor's degrees granted by the 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, which means they are

⁸ See <https://www.bls.gov/careeroutlook/2018/data-on-display/education-pays.htm>.

more likely to enter the workforce with prior professional work 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.

Table 12. Employment Outcomes for Graduates with Bachelor's Degrees

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)	32,866	\$44,804	82%	\$51,396	72%
Bachelor's Degree (SUS)	297,946	\$36,852	68%	\$49,580	59%
Total	330,812	-	-	-	-

Figure 27 displays the median first- and fifth-year earnings by institution for completers of FCS bachelor's degrees. Variation across institutions is wide, ranging from \$35,500 for Chipola College graduates to \$59,408 for Florida Gateway College graduates. The likelihood of being found in the employment records was fairly high across all bachelor's graduates from FCS institutions, ranging from 73% for Pensacola State College to 88% for Pasco-Hernando State College (**Figure 28**).

Figure 27. Median First- and Fifth-Year Earnings of Graduates with Bachelor's Degrees, by FCS Institution

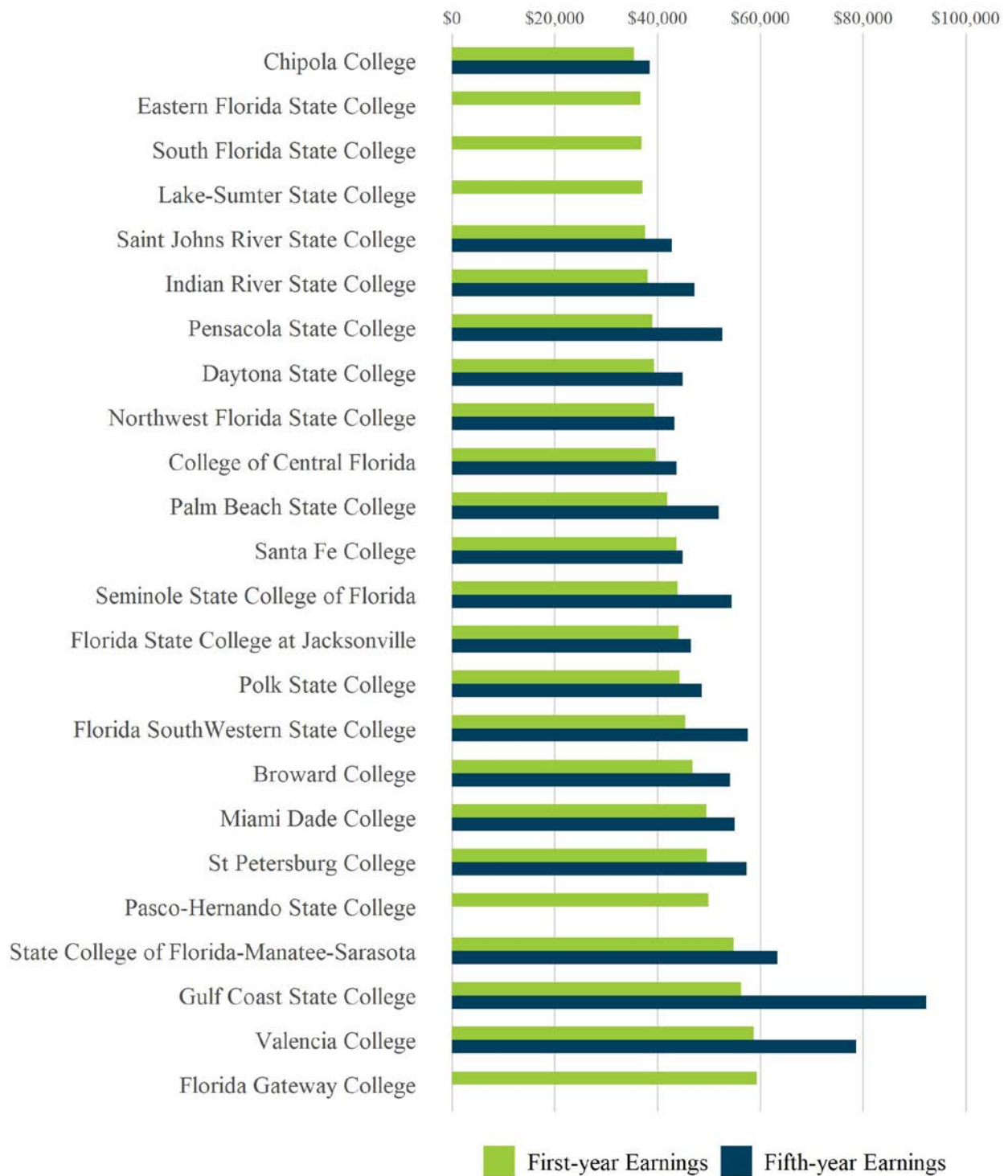


Figure 28. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Bachelor's Degrees, by FCS Institution



Bachelor's Degree Outcomes (State University System)

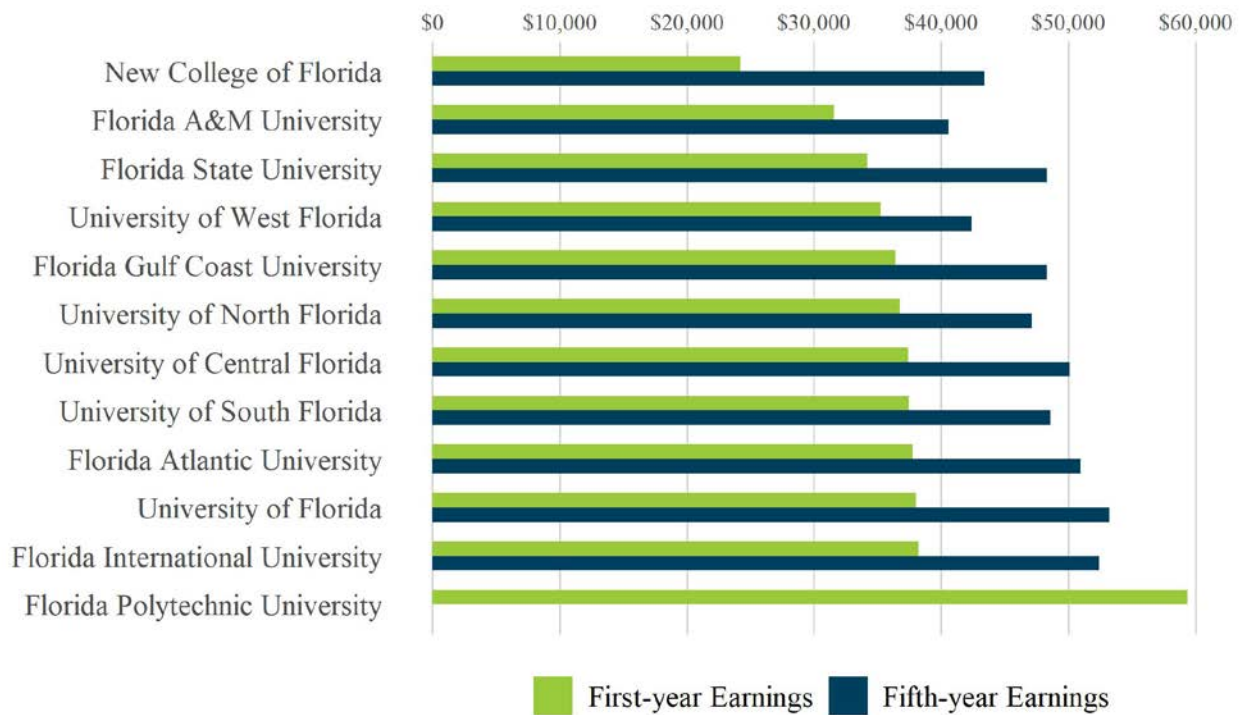
All 12 of the public universities in Florida that make up the State University System of Florida (SUS) award bachelor's degrees. During the five-year study period, SUS institutions in the state of Florida awarded 297,946 bachelor's degrees. This represents 90% of all bachelor's degrees awarded during this timeframe. **Figure 29** shows the median first-year earnings of graduates with bachelor's degrees by university.⁹ Median first-year earnings of such graduates varied substantially, ranging from \$24,224 (New College of Florida) to more than \$59,000 (Florida Polytechnic University).¹⁰ Such differences in the median first-year earnings between universities can potentially be attributed to the types of programs offered at the university: such as Florida Polytechnic University that focuses on STEM disciplines. There were not enough completers from Florida Polytechnic University with wage data in the current dataset to report median earnings by program, but the median earnings across bachelor's degree completers from STEM areas of study¹¹ at all universities were greater than \$40,000, which is considerably higher than the statewide median for SUS bachelor's degree completers.

⁹ Data for New College of Florida are not included in several tables in this report because it does not use the same classification of instructional programs as other public universities in the state that allow their data to be reported at the program level.

¹⁰ Florida Polytechnic University is composed of programs previously offered at the Lakeland campus of the University of South Florida.

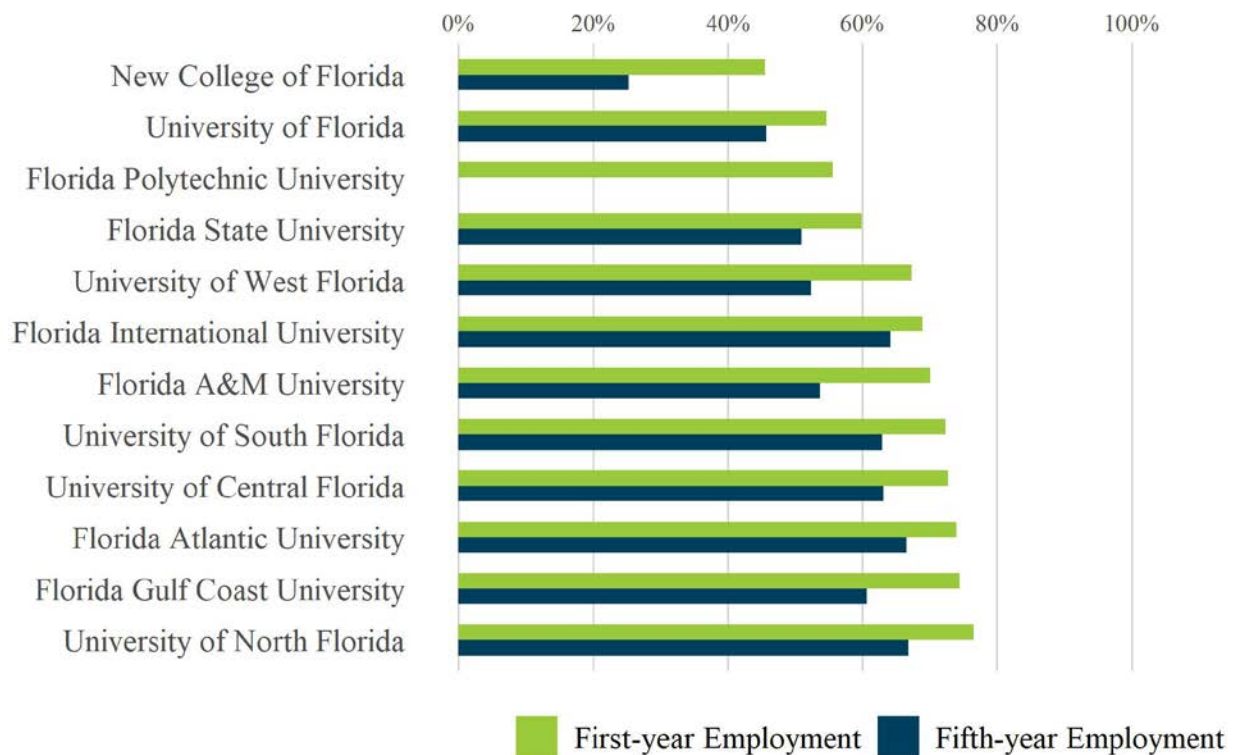
¹¹ STEM programs were defined according to DHS-identified CIP codes, <https://studyinthestates.dhs.gov/eligible-cip-codes-for-the-stem-opt-extension>

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



The likelihood of appearing in the employment records varied across Florida's universities (**Figure 30**). Graduates from the University of North Florida were most the likely to appear within the records one year after completion (77%), while graduates from New College of Florida were the least likely (46%). 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 or were excluded from the WRIS2 data for the 2015-16 and 2016-17 cohort years.

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



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 220 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 (\$66,208) and the lowest with a business administration and management degree (\$38,660). Ninety-one 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 \$108,984 (health services/allied health/health sciences¹²) to \$49,184 (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 (\$66,208) compared to SUS graduates with the same degree (\$56,980), a difference of \$9,228. 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 (91% compared to 86%).

Among the most popular SUS degrees, the highest salary was \$56,980 for registered nursing/registered nurse and the lowest was \$27,328 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 (\$81,872) and the lowest of the top 10 was aerospace, aeronautical and astronautical/space engineering completers (\$60,164).

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 was generally lower for SUS completers (54%–74%) than for FCS completers (79%–91%) in the most popular programs. This is consistent with a different path to employment for SUS completers, which may involve graduate study: as

¹² 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 Popular FCS 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—Other	11,753	\$39,144	80%	\$49,396	72%
Registered Nursing/Registered Nurse	6,435	\$66,208	91%	\$78,492	79%
Homeland Security, Law Enforcement, Firefighting and Related Protective Services—Other	1,488	\$40,384	82%	\$57,936	78%
Elementary Education and Teaching	1,209	\$39,484	88%	\$42,392	69%
Business Administration and Management—General	1,119	\$38,660	80%	\$46,672	67%
Special Education and Teaching—General	1,085	\$42,560	91%	\$46,248	87%
Computer/Information Technology Services Administration and Management—Other	1,005	\$47,404	80%	\$66,052	68%
Early Childhood Education and Teaching	913	\$38,704	82%	\$41,496	77%
Information Technology	913	\$46,640	79%	\$56,372	77%
Health Services Administration	543	\$39,780	81%	\$52,904	67%

B. Top 10 FCS 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
Health Services/Allied Health/Health Sciences—General ¹³	62	\$108,984	76%	\$113,544	86%
Fire Services Administration	10	\$85,048	90%	\$90,884	83%
Registered Nursing/Registered Nurse	6,435	\$66,208	91%	\$78,492	79%
Respiratory Care Therapy/Therapist	75	\$61,792	92%	\$85,640	75%
Information Science/Studies	17	\$59,620	88%	NA	NA
Medical Radiologic Technology/Science—Radiation Therapist	97	\$59,192	81%	\$78,700	70%
Construction Engineering Technology/Technician	62	\$58,548	79%	\$75,872	100%
Electrical, Electronic and Communications Engineering Technology/Technician	121	\$54,080	77%	NA	NA
Dental Hygiene/Hygienist	228	\$53,564	79%	\$59,176	64%
Clinical Laboratory Science/Medical Technology/Technologist	45	\$49,184	93%	\$51,580	86%

Table 14. First- and Fifth-Year Employment Outcomes for Graduates with Popular SUS 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—General	25,334	\$29,212	66%	\$42,000	58%
Biology/Biological Sciences—General	13,486	\$27,328	57%	\$47,792	45%
Registered Nursing/Registered Nurse	12,698	\$56,980	86%	\$69,372	71%
Finance—General	12,603	\$42,732	69%	\$60,612	64%
Criminal Justice/Safety Studies	12,140	\$31,540	73%	\$44,156	67%

¹³ This degree (which is inclusive of the Physician Assistant degree shown in Table 9B) 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
Business Administration and Management—General	10,903	\$39,524	74%	\$54,260	64%
Marketing/Marketing Management—General	9,939	\$37,808	71%	\$53,184	61%
Accounting	9,738	\$44,000	71%	\$62,900	68%
Political Science and Government—General	8,974	\$32,476	54%	\$47,464	52%
English Language and Literature—General	8,779	\$30,436	64%	\$42,684	55%

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/Firefighting	60	\$81,972	90%	\$83,836	67%
Materials Engineering	186	\$67,268	37%	\$69,328	14%
Agricultural and Food Products Processing	10	\$66,128	90%	\$76,196	40%
Systems Engineering	635	\$62,260	53%	\$81,524	26%
Nuclear Engineering	129	\$61,720	33%	\$86,100	15%
Chemical Engineering	1,192	\$61,540	54%	\$69,848	32%
Laser and Optical Engineering	20	\$60,928	65%	NA	NA
Electrical and Electronics Engineering	3,067	\$60,676	67%	\$74,888	52%
Computer Engineering—General	1,760	\$60,276	66%	\$80,368	56%
Aerospace, Aeronautical and Astronautical/Space Engineering	912	\$60,164	59%	\$77,928	43%

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 31** indicates that this is more common for graduates from SUS institutions (16%) than FCS institutions (9%).

Figure 31. Percentage of Bachelor's Degree Graduates Enrolled in Continuing Education After 1 and 5 Years

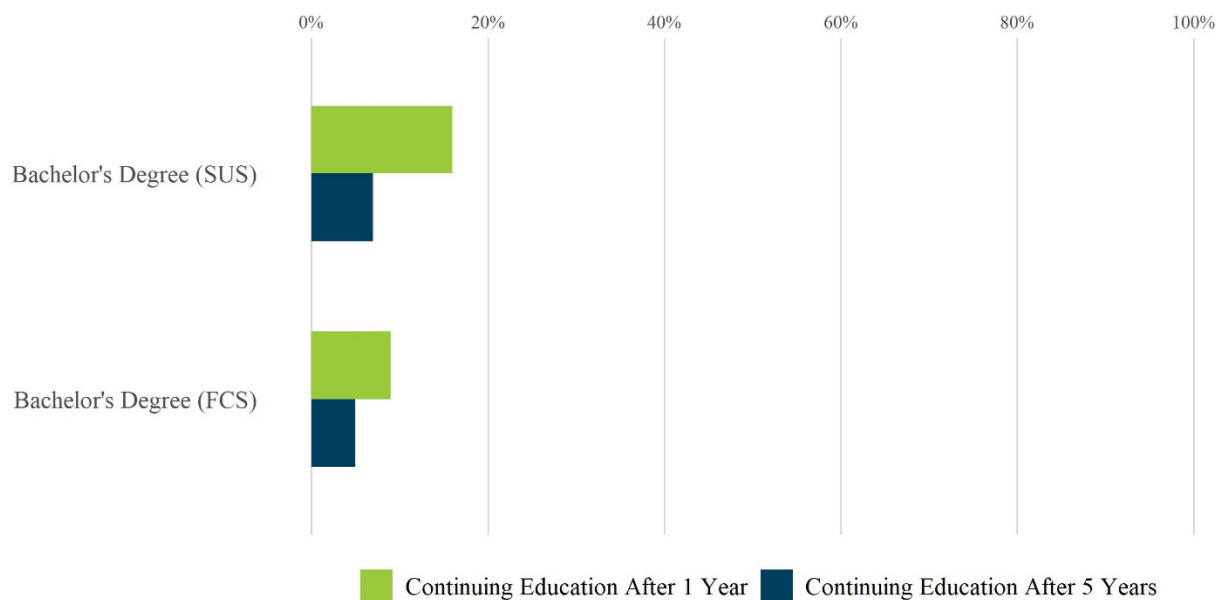


Table 15 shows the wide variation in the rate of continuing education enrollment across the colleges, from 4% for Chipola College to 15% for Polk State College. Statewide, about 17% of graduates with SUS bachelor’s degrees continue their education in Florida one year after graduation.¹⁴

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
Chipola College	4%
Saint Johns River State College	5%
College of Central Florida	6%
Gulf Coast State College	6%
Pensacola State College	6%
Florida SouthWestern State College	7%
South Florida State College	7%
Daytona State College	8%
Florida State College at Jacksonville	8%
Northwest Florida State College	8%
Palm Beach State College	8%
Seminole State College of Florida	8%
Broward College	9%
Miami Dade College	9%
Santa Fe College	9%
State College of Florida-Manatee-Sarasota	9%
Indian River State College	10%
Eastern Florida State College	11%
Pasco-Hernando State College	11%
Valencia College	11%
St Petersburg College	12%
Florida Gateway College	13%
Lake-Sumter State College	13%
Polk State College	15%

¹⁴ 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 eight of the 12 universities are within 2 percentage points of the state’s median rate for continuing education. Only four universities fell outside this tight cluster. At the high end, 22% of graduates with bachelor’s degrees from the University of Florida were enrolled in continuing education. In contrast, graduates with bachelor’s degrees from New College of Florida were 8% below the state median; only 7% of its graduates were enrolled in continuing education within the state (which may be indicative of students pursuing opportunities outside of Florida). Similarly, only 11% of graduates from Florida Polytechnic University and 12% of graduates from the University of North Florida were enrolled in continuing education at a Florida institution.

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

Institution	Percentage Enrolled in Continuing Education
New College of Florida	7%
Florida Polytechnic University	11%
University of North Florida	12%
Florida Gulf Coast University	13%
University of Central Florida	14%
Florida Atlantic University	16%
University of South Florida	16%
University of West Florida	16%
Florida A&M University	16%
Florida International University	17%
Florida State University	17%
University of Florida	22%

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 postsecondary educational system, master's degrees are only awarded by SUS institutions.

Public higher education institutions in Florida awarded 81,507 master's degrees during the five-year study (8% of all degrees/certificates issued between 2012-13 and 2016-17). Nearly 67% of these graduates were found in the matched student record/UI wage database and WRIS2 dataset used for this report, which did not include the 2015-16 and 2016-17 cohort years.

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 32** 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 University of Florida had median first-year earnings of more than \$58,750. Note that the New College of Florida medians are not shown in **Figure 32** or **Figure 33**, as the number of master's degree completers from this institution did not meet reporting criteria for wage data (10 or more individuals).

Figure 32. Median First- and Fifth-Year Earnings of Graduates with Master's Degrees, by University

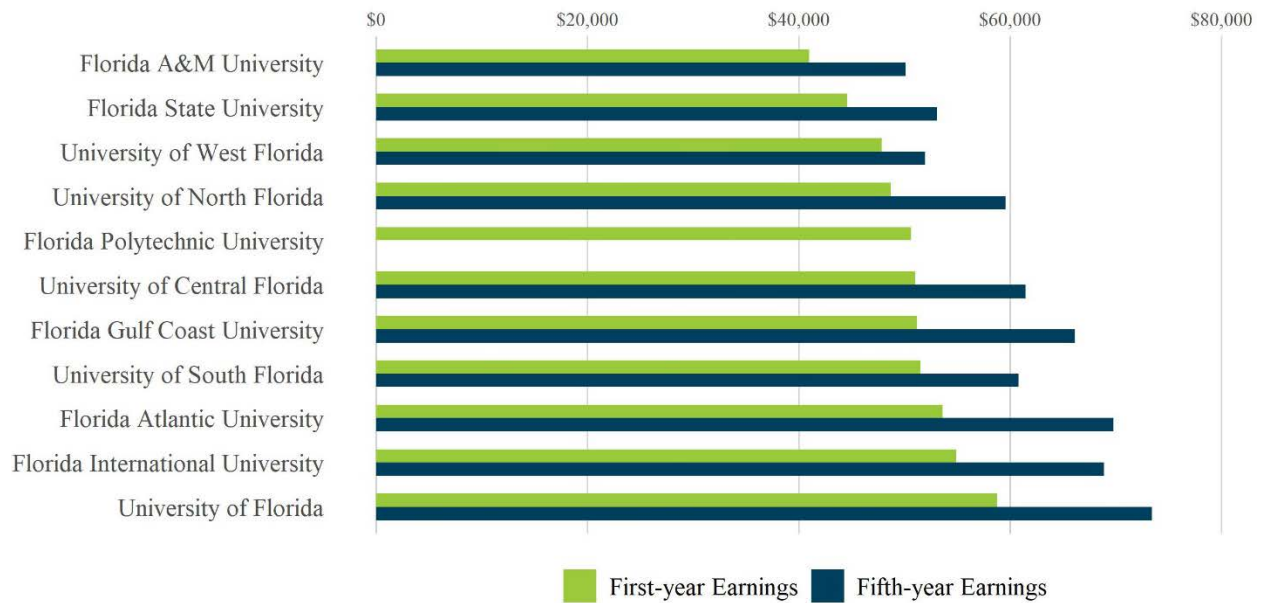
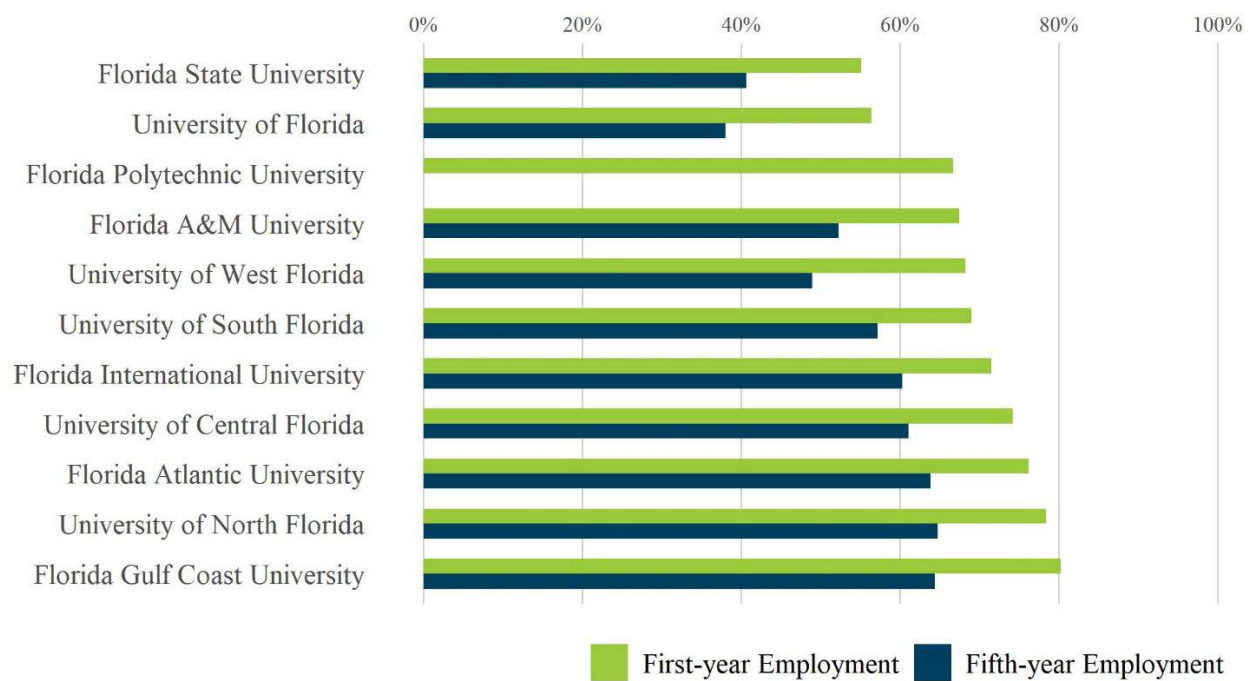


Figure 33. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Master's Degrees



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 \$65,984; while biological and biomedical sciences had the lowest first-year median salary of \$34,976. Two medical programs, dental clinical sciences and nurse anesthetist had the highest first-year median salaries, both over \$150,000.

Table 17. First- and Fifth-Year Employment Outcomes for Completers of Popular Master’s Degrees

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
Business Administration and Management—General	9,955	\$65,984	73%	\$85,516	57%
Registered Nursing/Registered Nurse	3,661	\$83,460	89%	\$98,784	77%
Social Work	3,362	\$39,700	79%	\$50,596	60%
Accounting	3,173	\$56,000	81%	\$77,296	67%
Educational Leadership and Administration—General	2,646	\$50,612	88%	\$60,972	78%
Public Health—General	2,141	\$44,600	61%	\$58,792	42%
Curriculum and Instruction	1,907	\$46,932	75%	\$50,384	64%
Business/Commerce—General	1,705	\$64,996	75%	\$81,996	57%
Public Administration	1,578	\$46,656	76%	\$55,308	66%
Biological and Biomedical Sciences—Other	1,551	\$34,976	35%	\$48,884	31%

B. Top 10 Master’s 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
Dental Clinical Sciences—General	64	\$158,032	64%	\$321,824	67%
Nurse Anesthetist	124	\$150,040	77%	NA	NA
Insurance	33	\$108,320	45%	NA	NA

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
Psychiatric/Mental Health Nurse/Nursing	26	\$105,052	73%	NA	NA
Crisis/Emergency/Disaster Management	39	\$101,868	82%	NA	NA
Health/Medical Physics	20	\$95,024	60%	NA	NA
Physician Assistant	296	\$93,764	80%	\$110,172	59%
Family Practice Nurse/Nursing	165	\$92,800	79%	NA	NA
Adult Health Nurse/Nursing	42	\$89,924	81%	NA	NA
Engineering/Industrial Management	236	\$84,844	80%	\$177,000	100%

Figure 34 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 approximately \$7,000 (political science and government) to approximately \$26,000 (registered nursing/registered nurse). 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 35**). Differences ranged from approximately \$8,300 (Florida A&M University) to more than \$20,000 (University of Florida). 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-paying areas, such as social work.

Figure 34. Median First-Year Earnings of Graduates with Bachelor's and Master's Degrees for Popular Bachelor's Degrees

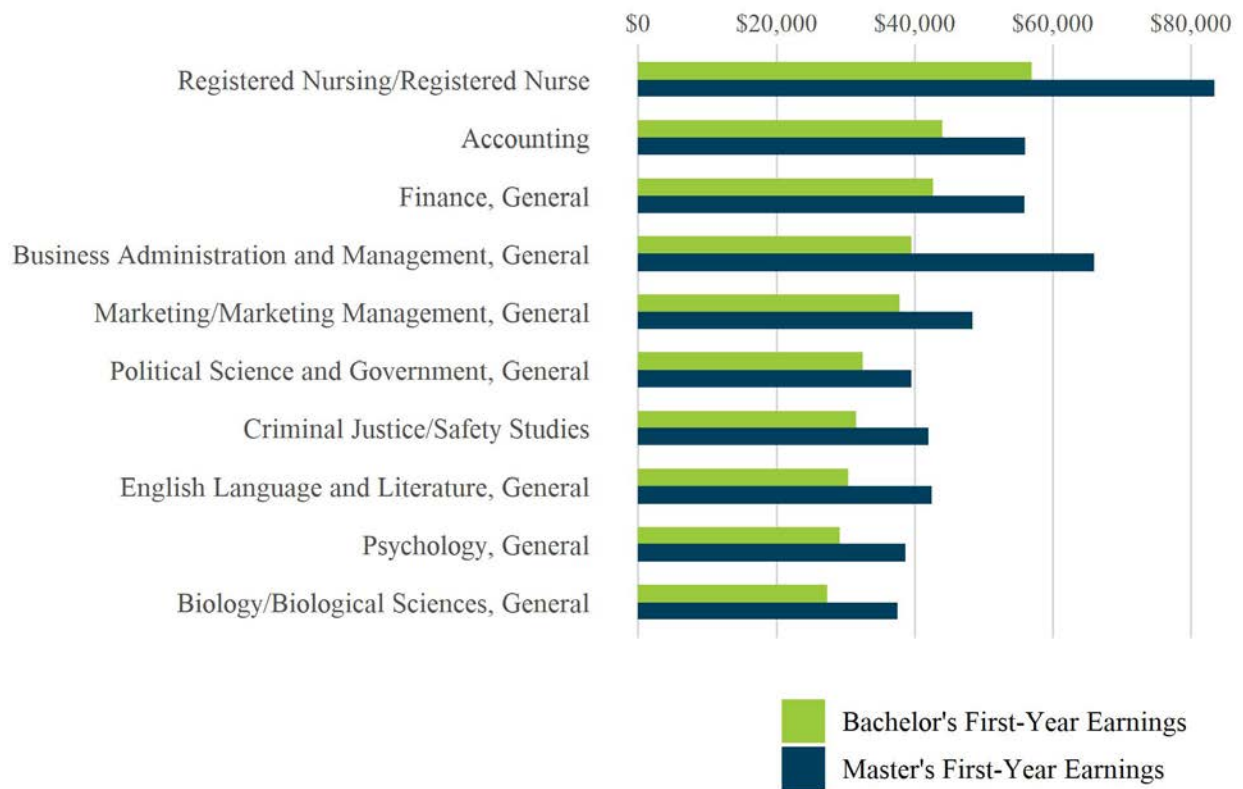
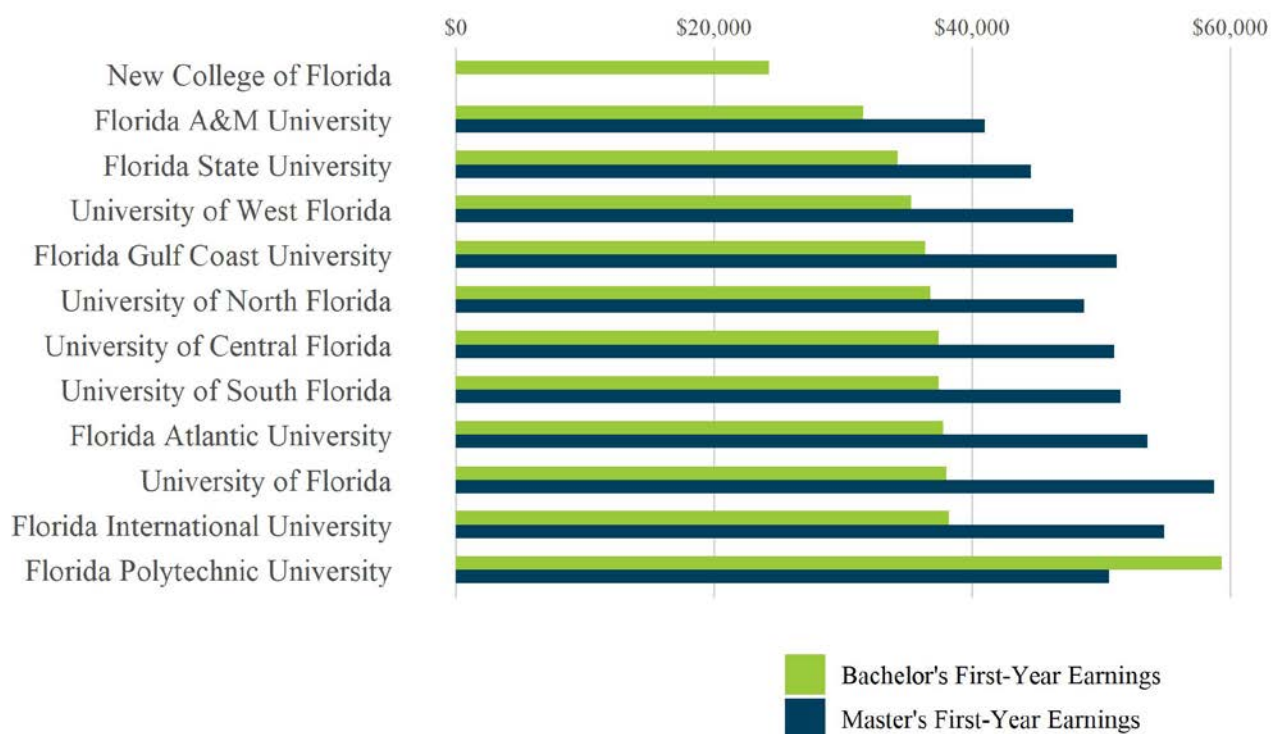


Figure 35. Median First-Year Earnings for Graduates with Bachelor's and Master's Degrees, by SUS Institution



One unusual case is posed by Florida Polytechnic University, where completers who earned a master’s degree actually had a lower median salary than those who earned a bachelor’s degree. It should be noted that the median earnings for this institution are based on small groups (20 completers with a bachelor’s degree and 18 with a master’s degree) from only a single cohort; these results will likely change in the future as more data for completers from this institution become available.

In general, some of these results likely attribute 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 earn more, often far more, than graduates with only bachelor’s degrees.

Specialist's Degrees

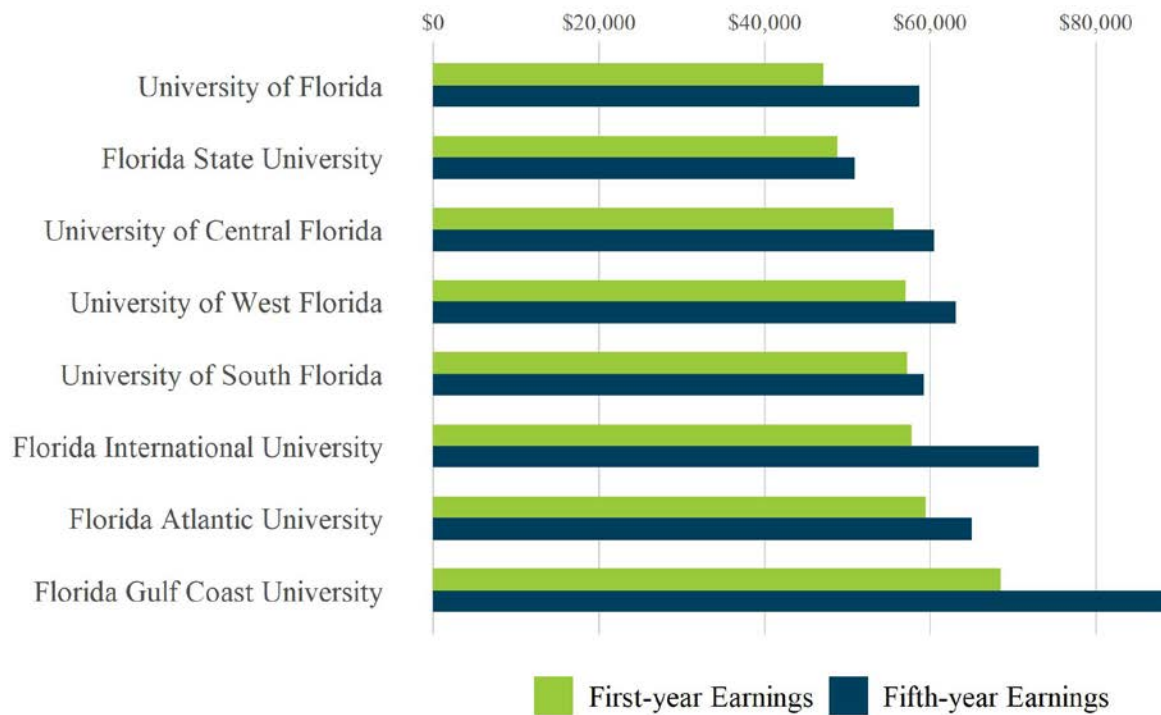
The specialist's degree (EdS) is above the master's degree but below the doctorate degree and is a one or two-year degree typically 30 to 36 credit hours beyond the master's level. The specialist's degree focuses on subjects related to K-12 education—such as leadership, curriculum and instruction, counseling,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

During the five-year study, Florida's universities awarded 1,199 specialist's degrees (less than 1% of all degrees/certifications issued across the five cohort years). As noted previously, the specialist degree is an advanced degree designed for people who want to develop skills beyond the master's level but are not interested in pursuing a doctorate degree. All specialist's degrees are concentrated in education-based professions, such as curriculum and instruction and educational leadership and administration. Within Florida's postsecondary educational system, specialist's degrees are only awarded by SUS institutions.

Specialist's Degree Outcomes

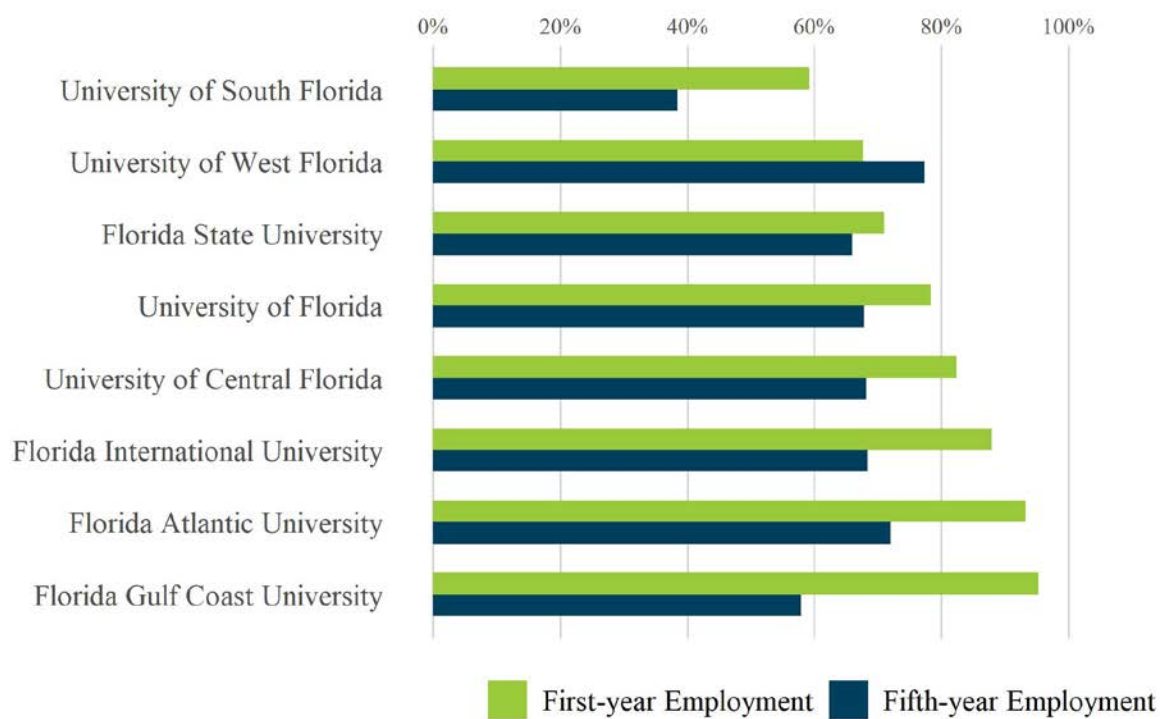
Figure 36 displays the median first-year earnings of graduates with specialist degrees by university. Here again, median first-year earnings varied considerably, ranging from less than \$50,000 (Florida State University and University of Florida) to more than \$68,000 (Florida Gulf Coast University). Graduates tended to experience greater earnings if they attended universities in larger metropolitan areas. Specialist's degree completers from Florida Gulf Coast also show the largest increase from first- to fifth-year earnings.

Figure 36, Median First- and Fifth-Year Earnings of Graduates with Specialist Degrees, by SUS Institution



In addition to having the highest median one-year earnings, specialist’s degree graduates from Florida Gulf Coast University also are most likely to be found in the employment records, whereas fewer than 60% of University of South Florida graduates are (Figure 37).

Figure 37. 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 \$28,000 separated the lowest median first-year earnings (marriage and family therapy/counseling) from the highest median first-year earnings (education). 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 with Specialist 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
Education—General	30	\$62,960	90%	\$87,600	52%
Library and Information Science	14	\$59,456	50%	NA	NA
Curriculum and Instruction	324	\$57,232	68%	\$62,880	58%

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
Educational Leadership and Administration—General	295	\$57,064	94%	\$66,472	83%
Special Education and Teaching—General	18	\$56,552	56%	\$42,632	33%
School Psychology	153	\$54,892	79%	\$60,244	61%
Counselor Education/school Counseling and Guidance Services	216	\$43,516	70%	\$49,176	59%
Mental Health Counseling/Counselor	89	\$39,720	81%	\$49,424	60%
Marriage and Family Therapy/Counseling	47	\$34,900	66%	\$45,080	58%

Doctorate Degrees

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.¹⁵ During the 5-year period covered within this report (academic years 2012–13 to 2016–17), 23,709 students completed a doctorate degree at one of ten Florida’s SUS institutions (2% of all degrees/certificates issued between 2012 and 2017).

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, DPT) typically consists of 4 years of medical education. These doctorate programs prepare students to become, for example, professional physicians, pharmacists, physical therapists, dentists, or veterinarians.
- **Doctorate (Non-Medical).** The non-medical doctorate (i.e., PhD, DrPH, EdD, 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 a number of 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.

¹⁵ US Census, Educational Attainment in the United States: 2018, Table 2. Educational Attainment of the Population 25 Years and Over, by Selected Characteristics: 2018, <https://www.census.gov/data/tables/2018/demo/education-attainment/cps-detailed-tables.html>

Doctorate Degree (Law) Outcomes

Four universities within the Florida 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 \$41,400, which is about \$4,500 less than graduates from Florida International University and about \$7,000 less than graduates from Florida State University. Law school graduates from the University of Florida had the highest median first-year earnings, at \$57,600.

Table 19. First- and Fifth-Year Employment Outcomes for Graduates with Doctorate 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	1,614	\$57,600	70%	\$95,864	70%
Florida International University	778	\$48,480	71%	\$82,252	68%
Florida State University	1,163	\$45,960	68%	\$74,912	69%
Florida A&M University	772	\$41,400	64%	\$61,228	56%

Doctorate Degree (Medical) Outcomes

Seven universities within the Florida 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 tend to 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 \$49,500 and \$52,200. 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.

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

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	413	\$106,432	65%	\$170,400	61%
University of Florida	Pharmacy	1,947	\$104,136	74%	\$124,824	48%
Florida A&M University	Pharmacy	713	\$93,588	70%	\$115,804	66%
University of South Florida	Pharmacy	213	\$91,296	75%	NA	NA
University of Florida	Veterinary Medicine	511	\$69,216	64%	\$91,536	51%
University of Florida	Medicine	658	\$52,148	55%	\$125,788	27%
Florida Atlantic University	Medicine	177	\$51,776	45%	NA	NA
Florida International University	Medicine	378	\$51,508	43%	\$93,696	36%
Florida State University	Medicine	577	\$50,860	57%	\$155,368	39%
University of South Florida	Medicine	684	\$50,860	55%	\$170,768	41%
University of Central Florida	Medicine	375	\$49,636	46%	\$54,344	17%

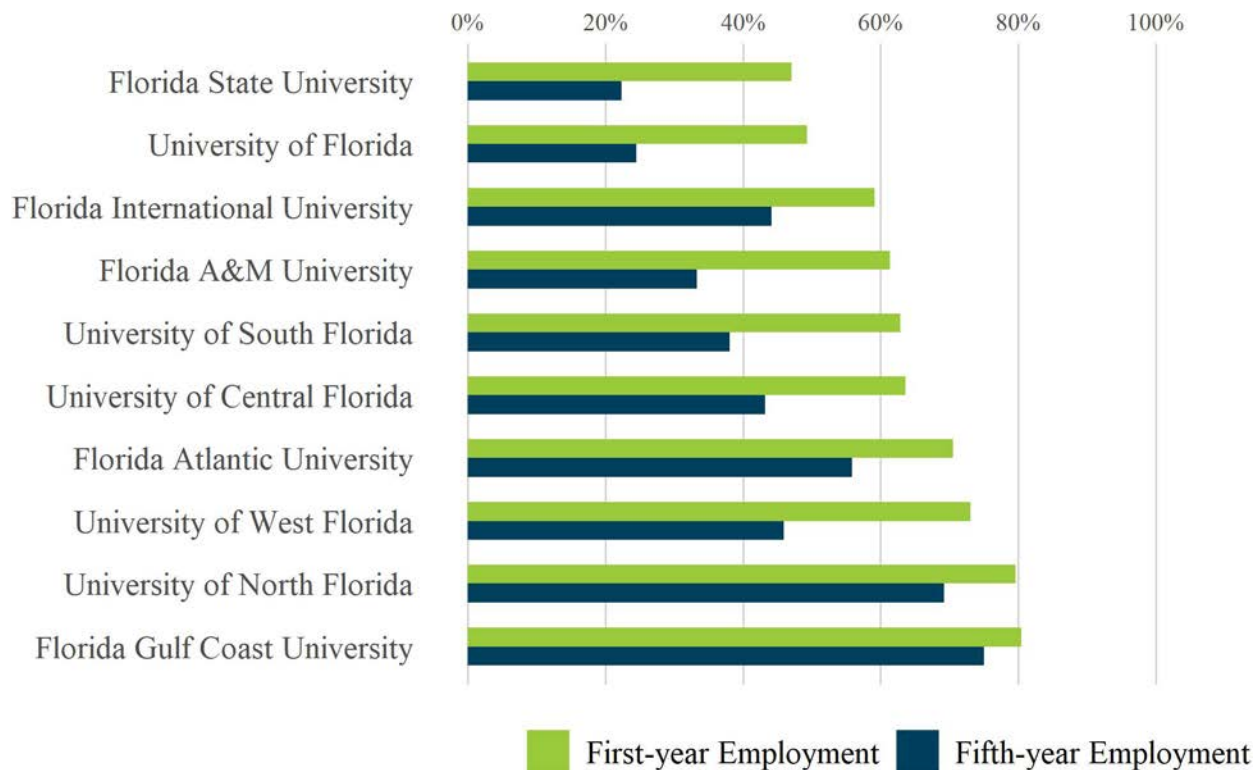
Doctorate Degree (Non-Medical) Outcomes

Ten universities within the Florida 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 38**). 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 of \$77,336 in their first post-completion year. Less than 50% of non-medical doctorate degree graduates from Florida State University were found in the employment records one year after completion, whereas 80% of those from University of North Florida and Florida Gulf Coast University were found (see **Figure 39**). 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 more likely to work in states that do not belong to the WRIS2 (California, for example), were excluded from the WRIS2 data for the 2015-16 and 2016-17 cohort years, or are more likely to be self-employed.

Figure 38. Median First- and Fifth-Year Earnings of Graduates with Non-Medical Doctorate Degrees, by SUS Institution



Figure 39. Percentage Found in Employment Data After 1 Year and After 5 Years for Graduates with Non-Medical Doctorate Degrees, by SUS Institution



What Students Study Matters

Unlike other doctorate degrees, non-medical doctorate degrees are offered in multiple different programs. **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 nursing practice have the highest median first-year earnings (\$92,908), and graduates with biological and biomedical sciences degrees have the lowest earnings (\$43,216). There also is a large range in percentage of completers found in the employment records; only 36% of electrical and electronics engineering degree graduates were found, compared with 87% of nursing practice graduates. The highest paying non-medical doctorate degrees are business related: business administration and management (\$126,440) and business/commerce (\$116,376). Nursing practice and electrical and electronics engineering are in the top 10 for both lists.

Table 21. First- and Fifth-Year Employment Outcomes for Graduates with Popular Non-Medical Doctorate Degrees

A. Ten Most Popular Doctorate 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
Physical Therapy/Therapist	1,576	\$68,120	79%	\$77,760	69%
Nursing Practice	602	\$92,908	87%	\$106,896	82%
Curriculum and Instruction	588	\$70,552	70%	\$78,268	47%
Chemistry—General	542	\$53,636	41%	\$76,056	21%
Electrical and Electronics Engineering	440	\$96,944	36%	\$106,916	15%
Psychology—General	439	\$66,780	47%	\$70,064	18%
Educational Leadership and Administration—General	397	\$74,588	86%	\$89,912	76%
Physics—General	358	\$52,500	39%	\$84,560	3%
Education—General	285	\$68,036	72%	\$86,380	67%
Biological and Biomedical Sciences—Other	269	\$43,216	43%	\$55,768	27%

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—General	215	\$126,440	39%	\$86,380	12%
Business/Commerce—General	59	\$116,376	37%	NA	NA
Epidemiology	21	\$100,008	33%	NA	NA
Systems Science and Theory	40	\$98,880	78%	\$105,712	75%
Electrical and Electronics Engineering	440	\$96,944	36%	\$106,916	15%
Systems Engineering	49	\$95,044	33%	\$121,008	10%
Nursing Science	132	\$93,280	80%	\$107,016	67%
Nursing Practice	602	\$92,908	87%	\$106,896	82%
Computer Engineering—General	157	\$90,772	37%	\$115,420	15%
Public Administration	85	\$87,856	39%	\$92,416	30%

Some doctorate degrees, such as those from biological and biomedical sciences programs, have lower median first-year earnings than completers of AS degrees. However, such comparisons must be made carefully: 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.¹⁶ 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.¹⁷ The data reflect the average federal student loan debt of all students (not just graduates) receiving federal loans in 2016–17, 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 2016–17 at each college, divided by the number of students attending the college that academic year. The average does not 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 40** shows the average federal debt level per student in 2016–17 at each FCS institution in Florida.¹⁸ Similar data are shown for each SUS institution in **Figure 41**.¹⁹

¹⁶ The Federal Reserve Bank of New York issues periodic reports on the level of student debt. See, for example, <https://www.newyorkfed.org/newsevents/news/research/2019/20190514>.

¹⁷ District Technical Colleges do not report debt information, so average debt for students at these institutions are not reported here.

¹⁸ No student loan data were available for Chipola College or North Florida College.

¹⁹ No student loan data were available for Florida Polytechnic University.

Figure 40. Average Federal Loan Amount per Student, by FCS Institution, 2016–17

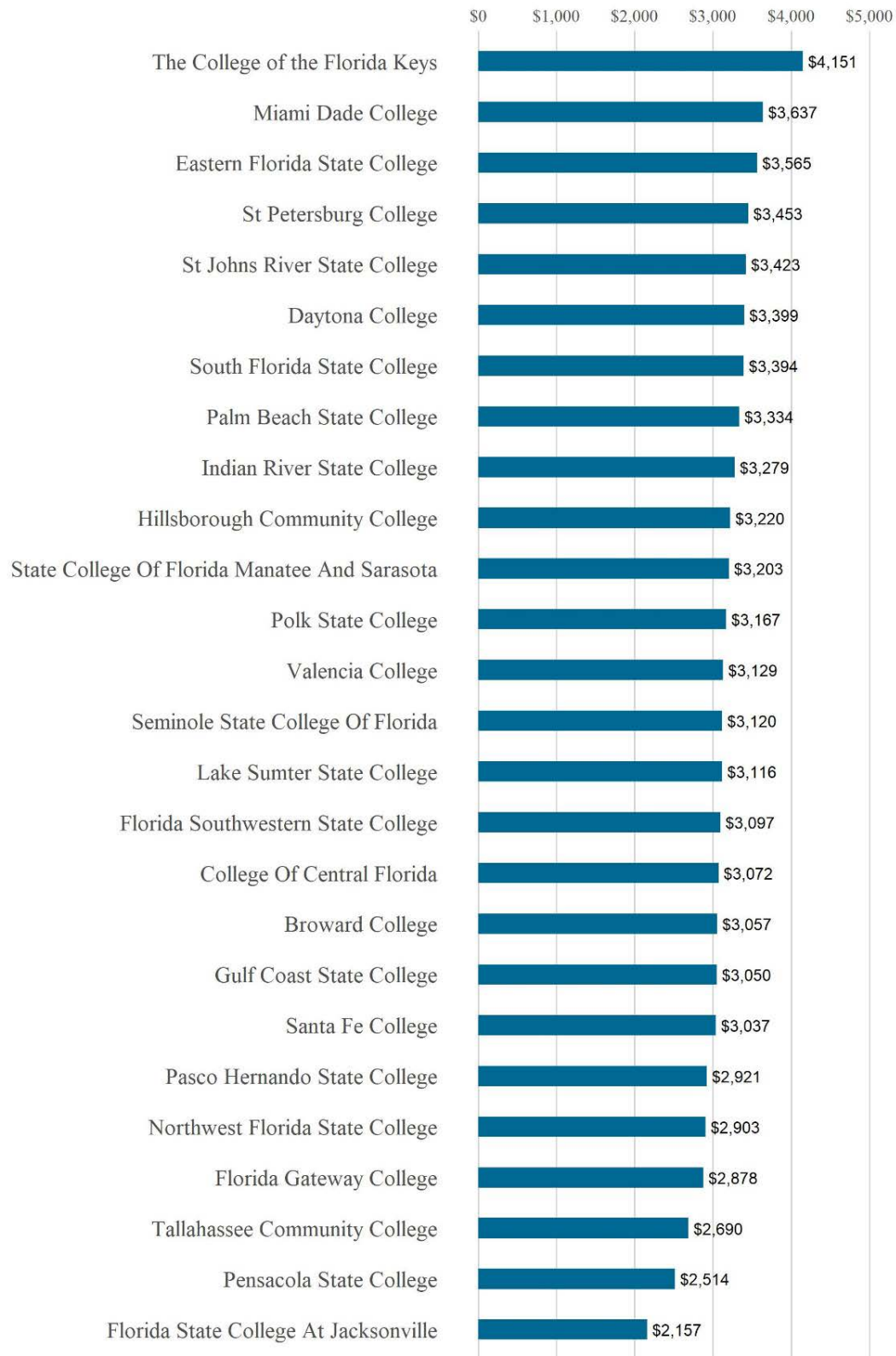
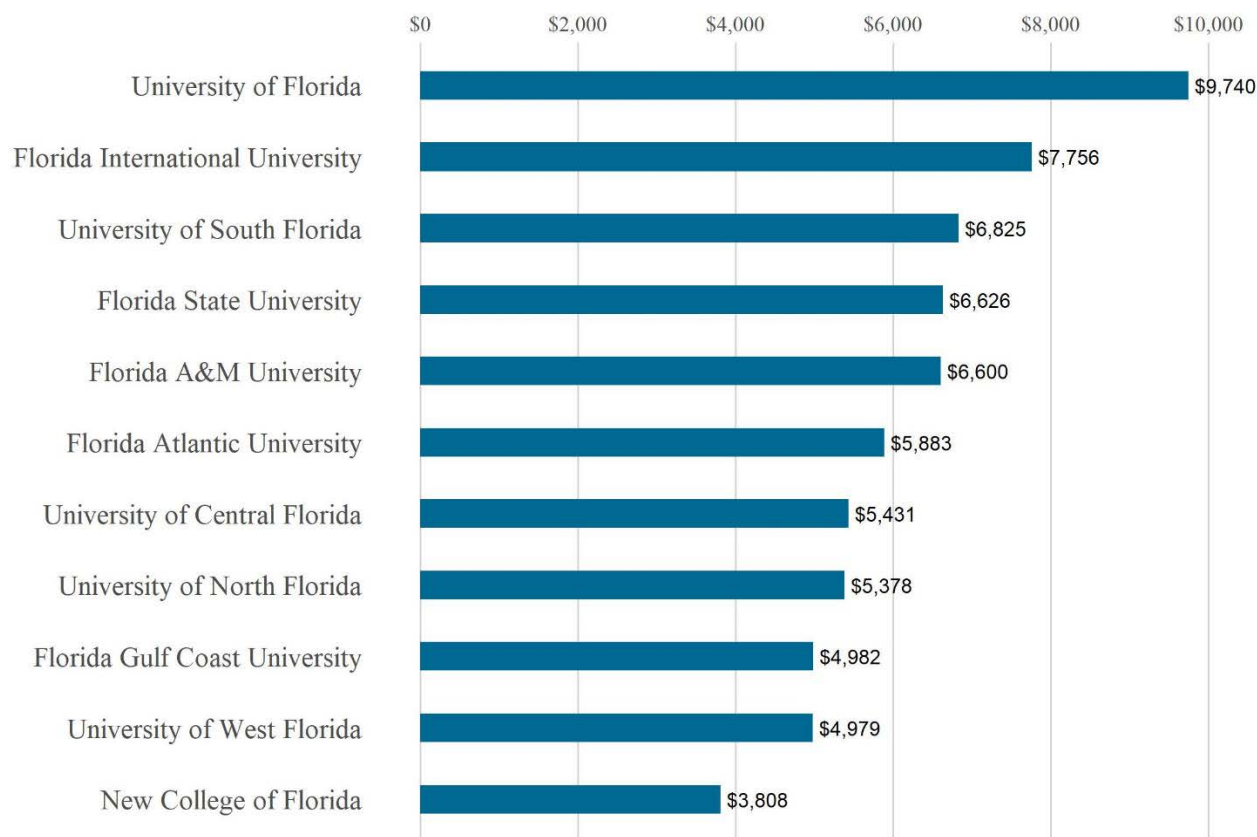


Figure 41. Average Federal Loan Amount per Student, by SUS Institution, 2016–17



For FCS institutions, students at Florida State College at Jacksonville have the lowest average student loan debt in 2016-17 (\$2,157), whereas those attending The College of the Florida Keys have the highest (\$4,151). 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 universities, from approximately \$3,800 (New College of Florida) to more than \$9,700 (University of Florida).

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, this report has focused primarily on earnings that are associated with the completion of the most common

degrees and certificates awarded in Florida. This section examines public assistance²⁰—another indicator of the financial well-being of students who complete different programs.

In the current dataset, 91,719 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-seven 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 (20% for both groups) than that of students who completed diplomas at Florida colleges (13% and 12%, respectively). 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 taken into account when drawing any conclusions from these results.

Table 22. Percentage of Completers Receiving Public Assistance One Year After Completion

Program	Percentage Receiving Public Assistance
Career Certificate (DTC)	27%
Career Certificate (FCS)	18%
Postsecondary Vocational Certificate (FCS)	16%
Applied Technical Diploma (DTC)	20%
Applied Technical Diploma (FCS)	13%
Apprenticeship (DTC)	20%
Apprenticeship (FCS)	12%
Associate Degree (FCS)	14%
Advanced Technical Certificate (FCS)	13%
Bachelor's Degree (FCS)	11%

²⁰ 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 program and/or the Supplemental Nutrition Assistance Program.

Program	Percentage Receiving Public Assistance
Bachelor's Degree (SUS)	7%
Master's Degree (SUS)	5%
Specialist's Degree (SUS)	2%
Doctorate Degree (Law) (SUS)	4%
Doctorate Degree (Medical) (SUS)	4%
Doctorate Degree (Non-Medical) (SUS)	2%

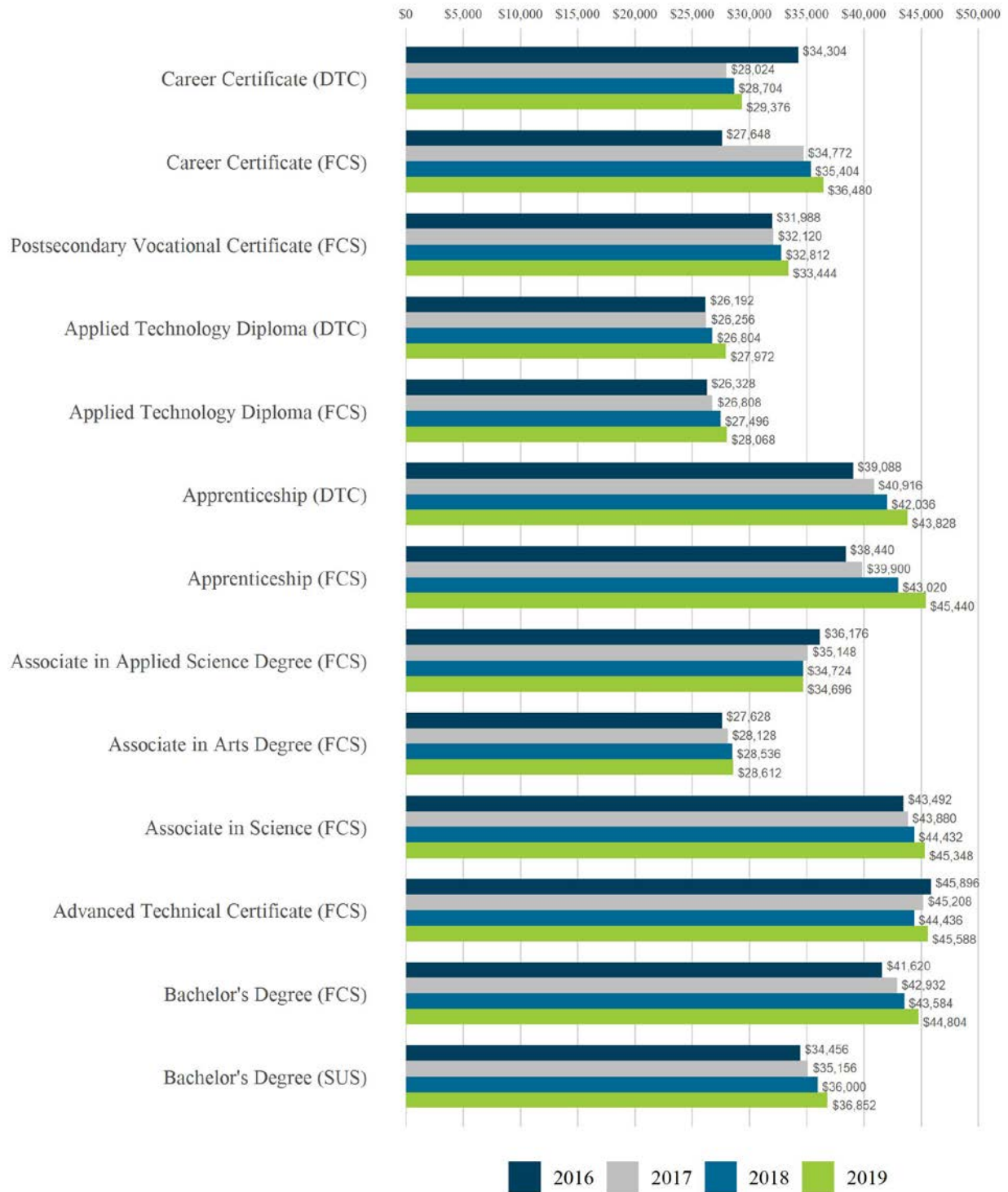
Progress

This is the fourth annual Economic Security Report. As a result, we now have enough data to draw some conclusions on the progress made in the past 4 years. The median first-year earnings of graduates during the five-year study period can be compared across the past four Economic Security Reports (**Figure 42**).²¹ In each case, the median is based on a cohort of five graduating classes.²²

²¹ We selected the past four 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.

²² Data for higher-level degrees were not reported in the 2018 ESR, and so are not reported in Figure 42.

Figure 42. Median First-Year Earnings by Degree, 2016–2019 Economic Security Report Medians



In nearly every case, median first-year salaries have increased steadily during the reporting years. The exception to this general pattern is completers of ATC.

Labor Market Information: Where the Jobs Are

Although this report primarily focuses on the first-year and fifth-year earnings of graduates for academic years 2012–13 through 2016–17, 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 2027. This section also provides information on the top 10 jobs statewide that require a postsecondary credential, where the demand for workers is projected to surpass the supply of workers. This section aims to supplement the earnings data presented throughout this report to help students anticipate where the demand for workers may be strongest across Florida in the coming years.

Industry Growth

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 2019, the largest industry sectors in Florida were trade, transportation, and utilities (20% of total employment); professional and business services (15.7%); education and health services (15.2%); leisure and hospitality (13.9%); and government (12.4%). Together, these five industries accounted for more than 77% of Florida's total nonagricultural employment.

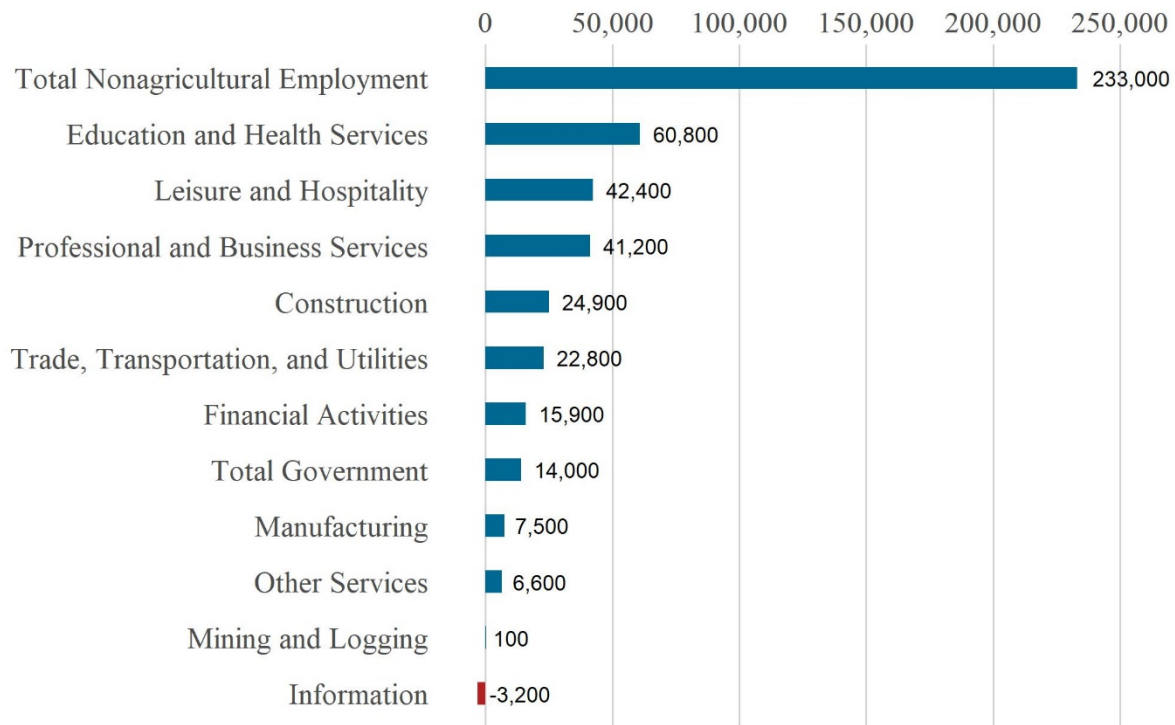
Table 23. Nonagricultural Employment in Florida, by Industry, October 2019

Total	9,079,000	Percentage of Total
Trade, Transportation, and Utilities	1,814,900	20.0%
Profession and Business Services	1,421,200	15.7%
Education and Health Services	1,380,000	15.2%
Leisure and Hospitality	1,265,400	13.9%
Total Government	1,125,900	12.4%
Financial Activities	598,700	6.6%
Construction	572,500	6.3%
Manufacturing	383,400	4.2%
Other Services	363,100	4.0%
Information	136,900	1.5%

Source. U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Program, released October 15, 2019. Prepared by the Florida Department of Economic Opportunity, Bureau of Labor Market Statistics.

Figure 43 presents the number of jobs gained by industry between 2018 and 2019. Fewer than 11,000 jobs were added in the financial activities, total government, and manufacturing sectors. Two sectors experienced growth of more than 40,000 jobs. The largest gain was in the education and health services sector, which added nearly 60,000 jobs.

Figure 43. Number of Jobs Gained in Florida From October 2018 to October 2019



Source. <http://lmsresources.labormarketinfo.com/library/press/release.pdf>.

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 growth is most likely to occur through 2027. The two fastest-growing industries are related to health and education. With projected growth of 19.4% between 2019 and 2027, ambulatory health care services is projected to be the fastest growing field, with the social assistance field second at 14.9%. Health care industries also are projected to grow rapidly because of population gains, the aging population, and improved medical technologies. Similarly, the rapid growth in educational services may reflect the continued growth in the number of families moving to Florida.

Table 24. Forecast of the Fastest Growing Industries in Florida Through 2027

Rank	Industry	Number	Percentage
1	Ambulatory Health Care Services	99,547	19.4%
2	Social Assistance	20,708	14.9%
3	Educational Services	25,699	14.4%
4	Management of Companies and Enterprises	15,605	14.1%
5	Professional, Scientific, and Technical Services	80,823	13.8%
6	Food Services and Drinking Places	109,244	13.4%
7	Specialty Trade Contractors	46,184	12.2%
8	Air Transportation	5,424	12.0%
9	Support Activities for Transportation	7,133	10.9%
10	Administrative and Support Services	72,335	10.7%
11	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	5,096	10.5%
12	Nursing and Residential Care Facilities	19,961	10.4%
13	Amusement, Gambling, and Recreation Industries	18,813	10.0%
14	Real Estate	14,209	9.8%
15	Couriers and Messengers	4,573	9.6%
16	Hospitals	30,976	9.4%
17	Construction of Buildings	10,308	9.3%
18	Warehousing and Storage	3,472	9.2%
19	Insurance Carriers and Related Activities	16,474	9.2%
20	Personal and Laundry Services	9,430	9.1%

Source. <http://www.floridajobs.org/workforce-statistics/data-center/statistical-programs/employment-projections>.

High growth rates do not necessarily mean that many new jobs will be created. For example, air transportation has a projected growth rate of 12%, but only about 5,400 new jobs are projected to be created by 2027. Another way to look at where the jobs likely will be is to see which industries will be creating the most new jobs, regardless of the growth rate. **Table 25** presents the top 20 industries in which the most jobs are likely to be created.

Ambulatory health care service is a large industry that is expected to grow rapidly in the coming years. Similarly, professional, scientific, and technical services are expected to add numerous new jobs and have a high rate of growth. Food services and drinking places and administrative and support services have lower growth rates, but because

they are large industries, they will add many more jobs than the fastest-growing industries listed in **Table 25**.

Table 25. Forecast of the Industries Gaining the Most New Jobs in Florida Through 2027

Rank	Industry	Number	Percentage
1	Food Services and Drinking Places	109,244	13.4%
2	Ambulatory Health Care Services	99,547	19.4%
3	Professional, Scientific, and Technical Services	80,823	13.8%
4	Administrative and Support Services	72,335	10.7%
5	Specialty Trade Contractors	46,184	12.2%
6	Local Government	44,489	5.9%
7	Hospitals	30,976	9.4%
8	Educational Services	25,699	14.4%
9	Social Assistance	20,708	14.9%
10	Nursing and Residential Care Facilities	19,961	10.4%
11	Amusement, Gambling, and Recreation Industries	18,813	10.0%
12	Insurance Carriers and Related Activities	16,474	9.2%
13	Management of Companies and Enterprises	15,605	14.1%
14	Accommodation, including Hotels and Motels	14,461	7.5%
15	Real Estate	14,209	9.8%
16	Food and Beverage Stores	12,674	5.5%
17	Motor Vehicle and Parts Dealers	12,079	7.9%
18	State Government	11,828	5.4%
19	Merchant Wholesalers, Durable Goods	10,649	5.6%
20	Construction of Buildings	10,308	9.3%

Source. <http://www.floridajobs.org/workforce-statistics/data-center/statistical-programs/employment-projections>.

Occupation Growth

Considering growth in occupations is also important, **Table 26** shows the occupations projected to grow the fastest through 2027. Out of the top 20, one does not require a formal education credential, seven require a postsecondary vocational certificate of the type awarded by FCS institutions and DTCs, four require an associate degree, three require a bachelor's degree, and five require a master's degree, doctorate, or professional degree.

Table 26. Forecast of the Fastest Growing Occupations²³ in Florida Through 2027

Rank	Standard Occupation Classification (SOC) title	2019–2027 projected growth		Hourly wage, 2018	Education
		Number	Percentage		
1	Physician Assistants	2,037	34.9%	\$50.20	Bachelor's degree
2	Nurse Practitioners	3,043	30.9%	\$46.76	Master's, doctoral or professional degree
3	Information Security Analysts	1,427	26.9%	\$42.86	Postsecondary (PS) non-degree award
4	Software Developers, Applications	10,422	26.6%	\$44.53	Associate degree
5	Home Health Aides	7,415	25.7%	\$11.11	PS non-degree award
6	Medical Assistants	14,369	25.5%	\$15.47	PS non-degree award
7	Health Specialties Teachers, Postsecondary	2,824	24.8%	<i>\$61,085.00</i>	Master's, doctoral or professional degree
8	Physical Therapist Assistants	1,353	23.8%	\$29.55	Associate degree
9	Personal Care Aides	6,565	23.2%	\$10.68	PS non-degree award
10	Operations Research Analysts	1,584	22.9%	\$32.33	Master's, doctoral or professional degree
11	Market Research Analysts and Marketing Specialists	7,168	22.6%	\$26.90	Bachelor's degree
12	Diagnostic Medical Sonographers	1,301	21.6%	\$31.52	PS non-degree award
13	Massage Therapists	3,080	21.3%	\$18.28	PS non-degree award
14	Respiratory Therapists	2,066	21.2%	\$27.72	Associate degree
15	Veterinary Assistants and Laboratory Animal Caretakers	1,157	20.3%	\$12.33	PS non-degree award
16	Veterinary Technologists and Technicians	2,020	20.3%	\$15.49	Associate degree
17	Physical Therapists	2,999	20.2%	\$42.23	Master's, doctoral or professional degree
18	Nonfarm Animal Caretakers	3,083	19.4%	\$11.05	No formal educational credential required
19	Financial Managers	4,525	19.4%	\$54.90	Bachelor's degree
20	Veterinarians	927	19.2%	\$44.43	Master's, doctoral or professional degree

Source. <http://www.floridajobs.org/workforce-statistics/data-center/statistical-programs/employment-projections>.

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

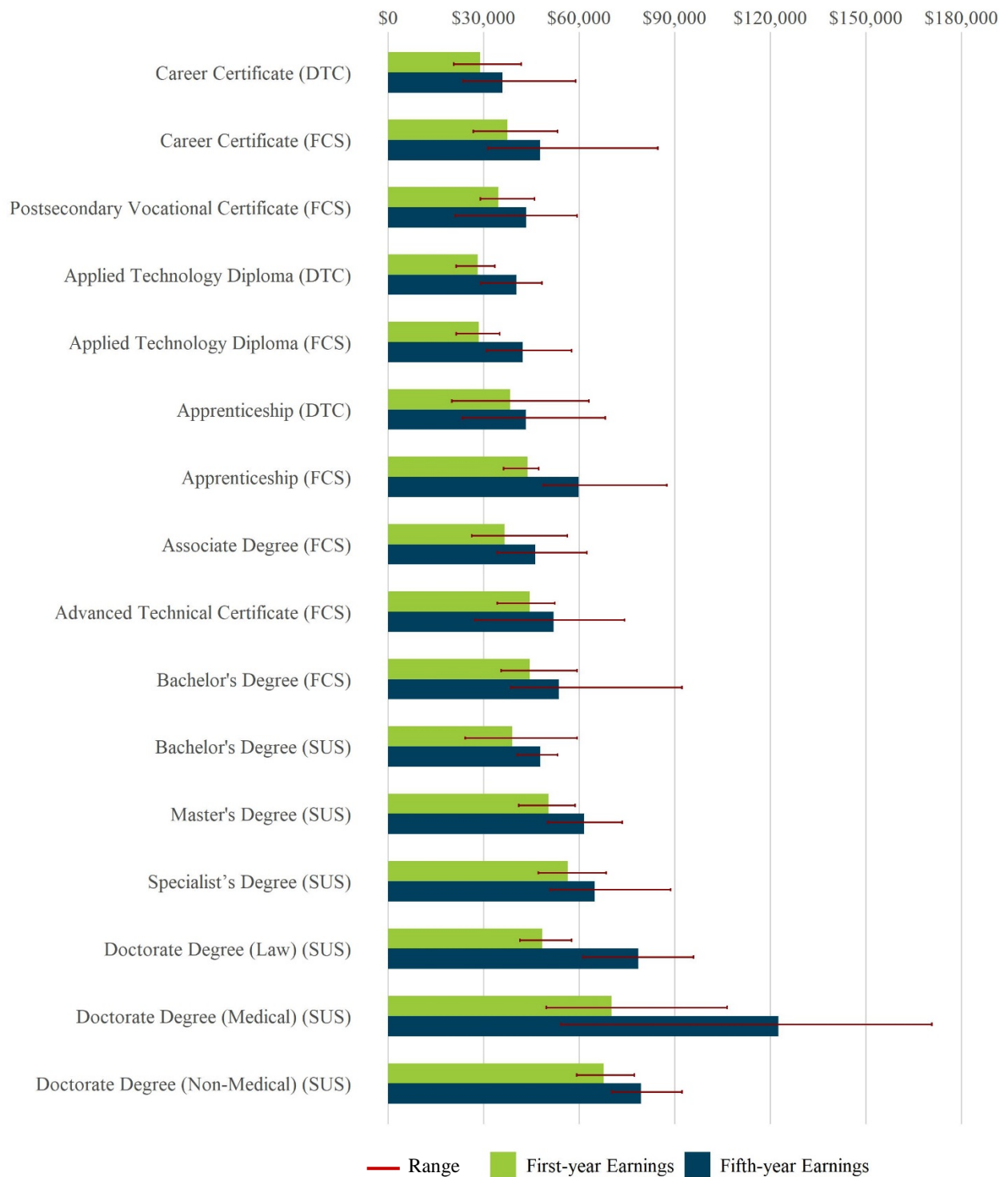
²³ Includes the top 20 ranked occupations.

Higher Education Pays But Wages Vary Across Programs

Figure 44 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 specific the 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,²⁴ 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 matter.

²⁴ See <http://www.census.gov/prod/2002pubs/p23-210.pdf> and more recently https://www.census.gov/newsroom/cspan/educ/educ_attain_slides.pdf.

Figure 44. 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 from many campuses in the state, not just the state's best-known campuses, earn, on average, roughly the same first-year wages.

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. And 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 longer-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 2012–13 to 2016–17

The cohort includes graduates and completers during their first year after graduation from public postsecondary education institutions for each academic year 2012–13 to 2016–17. Florida’s public postsecondary education institutions include the SUS, the FCS, and DTCs. The data for this cohort reflect employment and earnings outcomes, continuing education, student loan debt, and level of public assistance.

Key Concepts

Median first-year 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 2012/13, 2013/14, 2014/15, 2015/16, and 2016/17 academic years. The fifth-year rates only include the 2012/13 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 sufficient 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 project 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 five-year median. 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) and the Wage Record Interchange System 2 (WRIS2) data for 2012-13, 2013-14, and 2014-15 cohort years²⁵ 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

²⁵ WRIS2 data were excluded for the 2015-16 and 2016-17 cohort years.

years 2012–13 to 2016–17 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.”²⁶ For more information about CIP codes, visit the [NCES website](#).

Employment Records. Employment data obtained from the UI wage records, as provided by the Florida Department of Revenue and the WRIS2 data for the 2012-13, 2013-14, and 2014-15 cohort years.²⁷

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 five-year median. 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.

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 2012-13 academic year.

²⁶ <http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>.

²⁷ The WRIS2 data were excluded for the 2015-16 and 2016-17 cohort years.

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.

Table 27. Minimum Wage Thresholds Applied to Cohort Data

Year	Min Wage	Min Wage Threshold 4th QTR	Min Wage Threshold Annualized
2012-13	\$7.79	\$4,050	\$16,203
2013-14	\$7.93	\$4,124	\$16,496
2014-15	\$8.05	\$4,186	\$16,744
2015-16	\$8.05	\$4,186	\$16,744
2016-17	\$8.10	\$4,212	\$16,848

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 program or the Supplemental Nutrition Assistance Program 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 2016–17 at a Florida public postsecondary education 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 2016–17,

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

Table A1. Percentage of Career Certificate Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Career Certificate (DTC)	Aparicio-Levy Technical College	66%
	Atlantic Technical College	72%
	Baker County Adult Center	95%
	Big Bend Technical College	73%
	Bradford-Union Technical Center	68%
	Brewster Technical College	74%
	Cape Coral Technical College	77%
	Charlotte Technical College	78%
	Clewiston Adult School	57%
	D. A. Dorsey Technical College	64%
	DeSoto County Adult Education Center	72%
	Emerald Coast Technical College	72%
	Erwin Technical College	75%
	First Coast Technical College	76%
	Flagler Technical Institute	65%
	Florida Panhandle Technical College	70%
	Fort Myers Technical College	83%
	Fred K. Marchman Technical College	67%
	Gadsden Technical Institute	63%
	George Stone Technical Center	71%
	George T. Baker Aviation Technical College	78%
	Immokalee Technical College	74%
	Lake Technical College	77%
	Learey Technical College	76%
	Lindsey Hopkins Technical College	70%
	Lively Technical Center	68%
	Lorenzo Walker Technical College	79%
	Manatee Technical College	78%
	Marion Technical College	78%
	M-DCPS The English Center	55%
Miami Lakes Educational Center and Technical College	70%	

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
	Monroe County Adult and Community Education	45%
	Okaloosa Technical College	66%
	Orange Technical College-Mid Florida Campus	74%
	Orange Technical College-Orlando Campus	75%
	Orange Technical College-Westside Campus	69%
	Orange Technical College-Winter Park Campus	71%
	Pinellas Technical College-Clearwater	73%
	Pinellas Technical College-St. Petersburg	72%
	Radford M. Locklin Technical Center	63%
	Ridge Technical College	77%
	RIVEROAK Technical College	71%
	Robert Morgan Educational Center and Technical College	67%
	Sheridan Technical College	67%
	South Dade Technical College	59%
	Sumter Count Adult Education	68%
	Suncoast Technical College	81%
	Suncoast Technical Education Center	63%
	Technical Education Center-Osceola	78%
	Tom P. Haney Technical Center	72%
	Traviss Technical College	77%
	Treasure Coast Technical College	70%
	Wakulla County Adult and Community Education	64%
	William T. McFatter Technical College	73%
	Withlacoochee Technical College	75%
Career Certificate (FCS)	Broward College	87%
	Chipola College	76%
	College of Central Florida	84%
	Daytona State College	79%
	Eastern Florida State College	78%
	Florida Gateway College	79%
	Florida SouthWestern State College	92%
	Florida State College at Jacksonville	76%
	Gulf Coast State College	86%
	Hillsborough Community College	82%
	Indian River State College	75%
	Miami Dade College	79%

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
	North Florida College	80%
	Northwest Florida State College	84%
	Palm Beach State College	79%
	Pasco-Hernando State College	81%
	Pensacola State College	63%
	Polk State College	96%
	Santa Fe College	83%
	Seminole State College of Florida	83%
	South Florida State College	79%
	St. Johns River State College	86%
	St. Petersburg College	89%
	Tallahassee Community College	89%
	The College of the Florida Keys	90%
	Valencia College	90%

Table A2. Percentage of Postsecondary Vocational Certificate Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Postsecondary Vocational Certificate (FCS)	Broward College	74%
	Chipola College	82%
	College of Central Florida	75%
	Daytona State College	65%
	Eastern Florida State College	65%
	Florida Gateway College	75%
	Florida SouthWestern State College	84%
	Florida State College at Jacksonville	69%
	Gulf Coast State College	73%
	Hillsborough Community College	78%
	Indian River State College	73%
	Lake-Sumter State College	73%
	Miami Dade College	74%
	North Florida College	77%
	Northwest Florida State College	71%
	Palm Beach State College	75%
	Pasco-Hernando State College	71%
	Pensacola State College	68%
	Polk State College	73%
	Santa Fe College	73%
	Seminole State College of Florida	73%
	South Florida State College	81%
	St. Johns River State College	67%
	St. Petersburg College	76%
State College of Florida-Manatee-Sarasota	70%	
Tallahassee Community College	77%	
The College of the Florida Keys	66%	
Valencia College	74%	

Table A3. Percentage of Applied Technology Certificate Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Applied Technology Diploma (DTC)	Atlantic Technical College	82%
	Brewster Technical College	75%
	Cape Coral Technical College	54%
	Charlotte Technical College	87%
	Erwin Technical College	83%
	First Coast Technical College	40%
	Flagler Technical Institute	71%
	Florida Panhandle Technical College	79%
	Fort Myers Technical College	85%
	George Stone Technical Center	89%
	Learey Technical College	79%
	Manatee Technical College	83%
	Marion Technical College	73%
	Orange Technical College-Mid Florida Campus	79%
	Orange Technical College-Winter Park Campus	78%
	Sheridan Technical College	81%
Technical Education Center-Osceola	79%	
William T. McFatter Technical College	75%	
Applied Technology Diploma (FCS)	Broward College	75%
	College of Central Florida	90%
	Daytona State College	78%
	Eastern Florida State College	79%
	Florida Gateway College	76%
	Florida State College at Jacksonville	69%
	Gulf Coast State College	84%
	Indian River State College	76%
	North Florida College	84%
	Northwest Florida State College	73%
	Palm Beach State College	76%
	Pasco-Hernando State College	79%
	Pensacola State College	81%
	Polk State College	81%
	Santa Fe College	55%
Seminole State College of Florida	84%	
South Florida State College	85%	

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
	St. Petersburg College	79%
	Tallahassee Community College	76%
	The College of the Florida Keys	72%
	Valencia College	75%

Table A4. Percentage of Apprentice Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Apprenticeship (DTC)	Aparicio-Levy Technical College	66%
	Aparicio-Levy Technical College	86%
	Atlantic Technical College	83%
	Baker County Adult Center	95%
	Big Bend Technical College	73%
	Brewster Technical College	74%
	Cape Coral Technical College	77%
	Clewiston Adult School	57%
	D. A. Dorsey Technical College	64%
	DeSoto County Adult Education Center	72%
	Emerald Coast Technical College	72%
	Erwin Technical College	75%
	Erwin Technical College	85%
	Flagler Technical Institute	65%
	Flagler Technical Institute	67%
	Florida Panhandle Technical College	70%
	Fort Myers Technical College	93%
	Fred K. Marchman Technical College	67%
	Fred K. Marchman Technical College	86%
	Gadsden Technical Institute	63%
	George Stone Technical Center	86%
	Immokalee Technical College	74%
	Lake Technical College	77%
	Learey Technical College	76%
	Learey Technical College	82%
	Manatee Technical College	76%
	Marion Technical College	78%
	Marion Technical College	100%
	M-DCPS The English Center	55%
	Miami Lakes Educational Center and Technical College	89%
	Monroe County Adult and Community Education	45%
	Okaloosa Technical College	66%
	Orange Technical College-Mid Florida Campus	88%
Orange Technical College-Orlando Campus	62%	
Orange Technical College-Westside Campus	69%	

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
	Orange Technical College-Westside Campus	89%
	Orange Technical College-Winter Park Campus	71%
	Pinellas Technical College-Clearwater	84%
	Pinellas Technical College-St. Petersburg	76%
	Radford M. Locklin Technical Center	91%
	RIVEROAK Technical College	71%
	Sheridan Technical College	67%
	Sheridan Technical College	85%
	South Dade Technical College	59%
	Sumter Count Adult Education	68%
	Suncoast Technical College	81%
	Suncoast Technical College	93%
	Suncoast Technical Education Center	63%
	Technical Education Center-Osceola	78%
	Tom P. Haney Technical Center	72%
	Treasure Coast Technical College	70%
	Wakulla County Adult and Community Education	64%
	William T. McFatter Technical College	73%
	Withlacoochee Technical College	75%
Apprenticeship (FCS)	Daytona State College	65%
	Hillsborough Community College	89%
	Indian River State College	83%
	Palm Beach State College	91%
	Santa Fe College	95%
	Seminole State College of Florida	91%

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

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
AA Degree (FCS)	Broward College	67%
	Chipola College	57%
	College of Central Florida	64%
	Daytona State College	65%
	Eastern Florida State College	61%
	Florida Gateway College	65%
	Florida SouthWestern State College	69%
	Florida State College at Jacksonville	67%
	Gulf Coast State College	60%
	Hillsborough Community College	68%
	Indian River State College	65%
	Lake-Sumter State College	65%
	Miami Dade College	63%
	North Florida College	58%
	Northwest Florida State College	54%
	Palm Beach State College	69%
	Pasco-Hernando State College	68%
	Pensacola State College	60%
	Polk State College	69%
	Santa Fe College	59%
	Seminole State College of Florida	69%
	South Florida State College	63%
	St. Johns River State College	64%
	St. Petersburg College	68%
	State College of Florida-Manatee-Sarasota	65%
	Tallahassee Community College	62%
The College of the Florida Keys	61%	
Valencia College	70%	

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

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
AS Degree (FCS)	Broward College	83%
	Chipola College	73%
	College of Central Florida	81%
	Daytona State College	77%
	Eastern Florida State College	76%
	Florida Gateway College	88%
	Florida SouthWestern State College	87%
	Florida State College at Jacksonville	78%
	Gulf Coast State College	83%
	Hillsborough Community College	81%
	Indian River State College	82%
	Lake-Sumter State College	88%
	Miami Dade College	77%
	North Florida College	81%
	Northwest Florida State College	68%
	Palm Beach State College	82%
	Pasco-Hernando State College	82%
	Pensacola State College	70%
	Polk State College	88%
	Santa Fe College	83%
	Seminole State College of Florida	84%
	South Florida State College	91%
	St. Johns River State College	78%
	St. Petersburg College	82%
State College of Florida-Manatee-Sarasota	84%	
Tallahassee Community College	78%	
The College of the Florida Keys	77%	
Valencia College	80%	

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

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
AAS Degree (FCS)	Broward College	81%
	Daytona State College	73%
	Eastern Florida State College	76%
	Florida State College at Jacksonville	75%
	Gulf Coast State College	80%
	Hillsborough Community College	79%
	Indian River State College	73%
	Lake-Sumter State College	72%
	Miami Dade College	83%
	Northwest Florida State College	63%
	Palm Beach State College	71%
	Pasco-Hernando State College	73%
	Pensacola State College	67%
	Polk State College	81%
	Santa Fe College	71%
	Seminole State College of Florida	90%
	South Florida State College	89%
	St. Johns River State College	91%
	State College of Florida-Manatee-Sarasota	77%
	Tallahassee Community College	76%
The College of the Florida Keys	77%	
Valencia College	74%	

Table A8. Percentage of Advanced Technical Certificate Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Advanced Technical Certificate (FCS)	Broward College	73%
	College of Central Florida	82%
	Daytona State College	76%
	Eastern Florida State College	95%
	Florida State College at Jacksonville	69%
	Gulf Coast State College	86%
	Hillsborough Community College	81%
	Palm Beach State College	91%
	Pensacola State College	72%
	Polk State College	100%
	Santa Fe College	83%
	St. Petersburg College	85%
	State College of Florida-Manatee-Sarasota	76%
	Valencia College	91%

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

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Bachelor's Degree (FCS)	Broward College	85%
	Chipola College	83%
	College of Central Florida	81%
	Daytona State College	78%
	Eastern Florida State College	78%
	Florida Gateway College	86%
	Florida SouthWestern State College	86%
	Florida State College at Jacksonville	80%
	Gulf Coast State College	84%
	Indian River State College	82%
	Lake-Sumter State College	84%
	Miami Dade College	84%
	Northwest Florida State College	76%
	Palm Beach State College	81%
	Pasco-Hernando State College	88%
	Pensacola State College	73%
	Polk State College	87%
	Santa Fe College	81%
	Seminole State College of Florida	80%
	South Florida State College	78%
St. Johns River State College	84%	
St. Petersburg College	83%	
State College of Florida-Manatee-Sarasota	86%	
Valencia College	86%	
Bachelor's Degree (SUS)	Florida A&M University	70%
	Florida Atlantic University	74%
	Florida Gulf Coast University	75%
	Florida International University	69%
	Florida Polytechnic University	56%
	Florida State University	60%
	New College of Florida	46%
	University of Central Florida	73%
	University of Florida	55%
	University of North Florida	77%
	University of South Florida	72%
	University of West Florida	67%

Table A10. Percentage of Master'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	67%
	Florida Atlantic University	76%
	Florida Gulf Coast University	80%
	Florida International University	71%
	Florida Polytechnic University	67%
	Florida State University	55%
	University of Central Florida	74%
	University of Florida	56%
	University of North Florida	78%
	University of South Florida	69%
	University of West Florida	68%

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 (SUS)	Florida Atlantic University	93%
	Florida Gulf Coast University	95%
	Florida International University	88%
	Florida State University	71%
	University of Central Florida	82%
	University of Florida	78%
	University of South Florida	59%
	University of West Florida	68%

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	64%
	Florida International University	71%
	Florida State University	68%
	University of Florida	70%

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

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Doctorate (medical) (SUS)	Florida A&M University	70%
	Florida Atlantic University	45%
	Florida International University	43%
	Florida State University	57%
	University of Central Florida	46%
	University of Florida	65%
	University of South Florida	65%

Table A14. Percentage of Doctorate (Non-Medical) Completers Found in Earnings Data

Degree or Certificate	Institution	Percentage of Completers in the Earnings Records
Doctorate (non-medical) (SUS)	Florida A&M University	61%
	Florida Atlantic University	71%
	Florida Gulf Coast University	80%
	Florida International University	59%
	Florida State University	47%
	University of Central Florida	64%
	University of Florida	49%
	University of North Florida	80%
	University of South Florida	63%
	University of West Florida	73%

