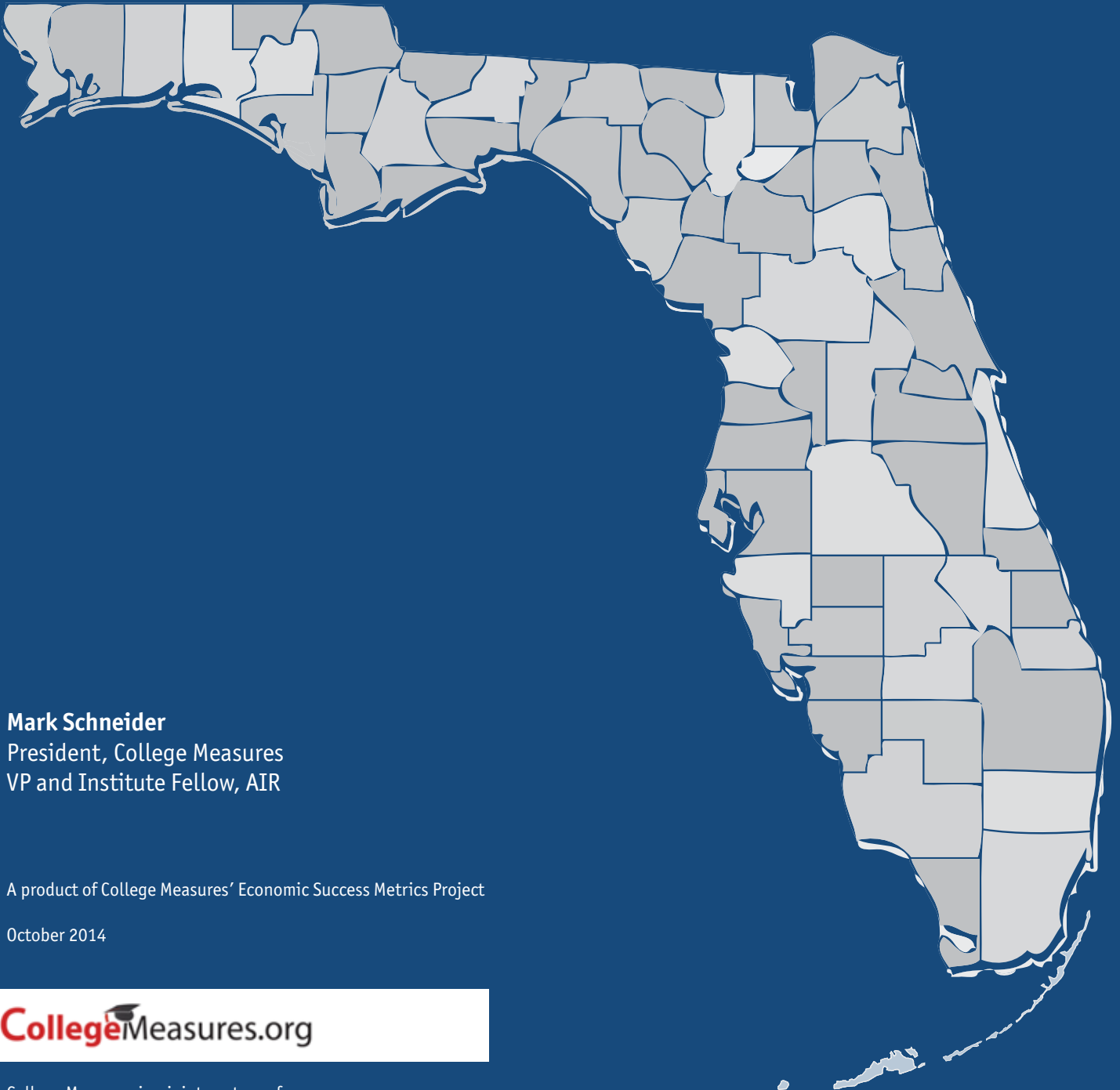


LABOR MARKET EXPERIENCES AFTER POSTSECONDARY EDUCATION:

The Earnings and Other Outcomes of Florida's Postsecondary Graduates and Completers



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A product of College Measures' Economic Success Metrics Project

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Executive Summary

This report results from a partnership between the State of Florida and College Measures. It focuses on the median first-year earnings of recent graduates and completers¹ from Florida's public postsecondary educational institutions: the State University System of Florida (SUS), the Florida College System (FCS), and District Technical Centers (DTCs).² The report documents the variation in first-year earnings for students who earned degrees or certificates from these three systems of postsecondary education. The report also presents data on the percentage of graduates and completers from various institutions that are receiving public assistance, as well as the percentage enrolled in continuing education programs. Debt accumulated by all students (not just graduates) is also reported. The results show that the type of degrees students earn, and where they earn them, matters.

Information in this report comes from three main data sources: Florida Education and Training Placement Information Program (FETPIP) from the Florida Department of Education, Wage Record Interchange System 2 (WRIS2),³ and the Florida Department of Education's Office of Student Financial Assistance. The data discussed in this report reflect outcomes for graduates and completers in their first year after graduation for a 5-year period from academic years 2007–08 to 2011–12. Although the data represent employment and earnings outcomes, the data do not include information about the graduate's occupation and whether they are employed in their field of study.

-
- 1 In this report, "graduates" is a specific term used to identify any person who has earned a degree (e.g., associate's, bachelor's, or master's). "Completers" is a more general term used to identify any person who has completed any level of postsecondary education (e.g., certificates, diplomas, bachelor's degrees, etc.).
 - 2 The SUS includes 12 public universities. The FCS is comprised of 28 public community colleges and state colleges, some of which now offer four-year bachelor's degrees. Fifty-two DTCs in the state offer certifications in a variety of career and technical education program areas. These three systems comprise Florida's public postsecondary educational system.
 - 3 The WRIS2 program is a voluntary system whereby states can share aggregate employment and wage outcomes with other states. This allows us to report on the employment and earnings data of graduates from the State of Florida who are employed in other states. Currently, 35 states participate in WRIS2. A map of participating states can be found at http://www.doleta.gov/performance/pfdocs/WRIS2_Map_May_2014.pdf. Florida's neighboring states, Georgia and Alabama, are not currently members of WRIS2.

Florida College System and District Technical Centers

- The bachelor's degree and the associate's in arts (A.A.) degree are the two most commonly awarded degrees in Florida. The A.A. degree is designed as a pathway to the bachelor's degree. The median first-year earnings of graduates with these degrees are lower, however, than those of graduates from many other degree and certificate programs. For example, graduates with an associate's in science (A.S.) degree had median earnings more than \$11,000 higher than graduates with bachelor's degrees and almost \$18,000 higher than graduates with A.A. degrees who are in the labor market.
- Field of study can greatly affect early career earnings. The median first-year earnings of a graduate with an A.S. degree in Child Care Provider/Assistant was around \$25,000. A graduate with an A.S. degree in Nursing can earn twice as much, and graduates who earn an A.S. degree in Emergency Medical Technician—Paramedic can earn even more.
- Median first-year earnings vary across programs awarding the same degree in the same field of study. For example, median first-year earnings for Emergency Medicine Technology—Paramedic ranged from less than \$50,000 (College of Central Florida, Tallahassee Community College, and Santa Fe College) to around \$65,000 or more (Hillsborough Community College and Broward College).
- The average federal debt level per student in 2011–12 across Florida's colleges ranged from less than \$3,000 (Pensacola State College, Seminole State College of Florida, South Florida State College, Lake-Sumter State College, Florida Gateway College, Polk State College, Gulf Coast State College, Pasco-Hernando State College and Northwest Florida State College) to more than \$6,000 (College of Central Florida).
- DTCs issued far more career certificates than colleges in the State of Florida. Career certificates issued by DTCs accounted for more than 60% of all certificates awarded in the state.
 - However, graduates with certificates from Florida's colleges were more successful at obtaining employment (76%) than those with career certificates from DTCs (68%).
 - In addition, across the 5-year period of study, median first-year earnings of graduates and completers from FCS were higher (\$34,628) than the earnings (\$28,028) of those with certificates from DTCs. Several factors could be at play here. For example, colleges tend to enroll a much higher percentage of students in programs that traditionally have higher placement rates and earnings, such as Law Enforcement/Public Safety, compared with other programs, such as Child Care.

- Almost 20% of completers who earned career certificates in DTCs received public assistance, almost double the percentage of those who earned their degrees and certificates from institutions in the FCS.
- Students who earned associate's degrees were less likely to have received public assistance than students who earned certificates.

State University System of Florida Degrees and Florida College System Bachelor's Degrees

- Median first-year earnings of graduates with bachelor's degrees varied from less than \$22,400 (New College of Florida) to more than \$35,000 (Florida International University). Some of this variation is related to the economic climate in the areas of the state to which these campuses serve and where students choose to work.
- The median first-year earnings of bachelor's graduates from five universities (University of Central Florida, University of Florida, Florida Gulf Coast University, University of South Florida, and the University of North Florida) were within \$1,000 of the state median, suggesting that employers value at roughly the same level many university-based pathways into the labor market.
- Psychology is one of the most popular fields of study in state universities. But graduates with degrees in Psychology tended to have low first-year earnings, around \$6,000 less than the statewide median. Graduates with degrees in Biology, Criminal Justice, and English Language and Literature also fell at the bottom of the earnings distribution.
- Degrees in business-related fields—such as Business Administration and Management, Finance, and Accounting—tended to reward graduates with high first-year earnings. However, the median first-year earnings of graduates with degrees in Marketing, another business-related field, were not as high.
- Graduates with degrees in Elementary Education and Teaching had the second highest median first-year earnings, exceeded only by graduates with degrees in Accounting.
- The median statewide federal loan amount per student was slightly more than \$5,500. Federal debt for students ranged from around \$4,600 (University of West Florida) to more than \$7,000 (University of Florida). Because this disbursement includes both graduate and undergraduate students, average debt may be higher in research universities, such as Florida State University and the University of Florida. Moreover, this is only federally issued debt. Other sources of student loans were not included in this estimate.

- During the 5-year study period, campuses in the FCS awarded almost 10,000 bachelor's degrees. These degrees were concentrated in a small number of relatively high-paying fields. In turn, the median first-year earnings of graduates with bachelor's degrees from Florida's colleges (around \$41,000) were higher than those of graduates with bachelor's degrees from Florida's universities (more than \$33,000).
- Graduates with master's degrees earned more, often far more, than graduates with only bachelor's degrees. The median first-year earnings of graduates with master's degrees in Florida was around \$49,000 compared with approximately \$34,000 for graduates with bachelor's degrees.

Where the Jobs Are

The report also presents data on the industries and occupations that are likely to be most in demand over the next 10 years.

The three industries with the fastest growth in Florida are related to construction. With annual growth of more than 3.7%, the field of Specialty Trade Contractors is projected to grow the fastest through 2021.

- The health care industry is also projected to expand rapidly due to population growth, the aging population, and improved medical technologies.
- Another way to look at where the jobs are is to see which industries will be creating the most new jobs, regardless of the growth rate. Some fast-growing industries employ only a relatively small number of people; others are much larger. For example, ambulatory health care services and professional, scientific, and technical services are expected to add many new jobs, and both have high growth rates. In contrast, two industries, hospitals and administrative and support services, have lower growth rates, but because they are such large industries, they will add many more jobs than most of the faster growing industries.
- Some occupations will have a greater demand relative to supply, for example:
 - Through 2021, Florida's postsecondary educational institutions will award approximately 528 academic credentials for physical therapy. However, the industry demand is estimated to be around 2,000 therapists during this time, leaving a shortage of more than 1,450 trained individuals. Physical therapists are well compensated.
 - Similarly, Florida's colleges and universities will produce far fewer academic credentials for securities and financial service sales agents than the projected industry demand, resulting in a shortage of some 1,300 trained graduates. These graduates are also well compensated.

More findings are available at: <http://www.beyondeducation.org/esm>

In addition to <http://www.beyondeducation.org/esm>, more information is also available at the following sites:

- What People Are Asking (<http://www.whatpeopleareasking.com/index.shtm>) contains Florida job and wage data by area. It features hot jobs, what these jobs pay, and other information of interest to students and parents.
- Smart College Choices from the Florida Department of Education (<http://smart-college-choices.com/>) provides outcome data on graduates of FCS institutions and DTCs.

Florida Colleges and District Technical Centers

Florida's public postsecondary system includes institutions in the Florida College System (FCS) and District Technical Centers (DTCs), which are operated by school districts. FCS institutions offer a variety of programs, from bachelor's degrees and associate's in arts degrees to career and technical programs. DTCs offer only career and technical education (CTE) programs.

The associate's in arts degree (A.A.) is designed for students who intend to earn a bachelor's degree later. CTE programs, such as the associate's in applied science (A.A.S.) and the associate's in science (A.S.) degrees, are designed for students who are seeking employment immediately after graduation. All three of these associate's degree programs are designed as 2-year courses of study.

Career certificate and college credit certificate programs are available in many specialties for students who want to spend less than 2 years in career preparation. Certificate programs fall into several categories:

- **Career certificate.** 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 hours to more than 1,500 hours. Colleges and DTCs offer these certificate programs as non-college credit. Examples of career certificates include correctional probation officer, cosmetologist, culinary operator, firefighter, medical assistant, and practical nurse.
- **Applied technology diploma.** The applied technology diploma is a course of study that is part of an A.S. degree or A.A.S. degree. The course of study is less than 60 credit hours and is designed to lead to employment in a specific occupation. Colleges and DTCs offer these diploma programs as non-college credit. Examples include dental assistant and emergency medical technician.
- **Apprenticeship.** An apprenticeship is a combination of on-the-job training and related classroom instruction in which students learn the practical and theoretical aspects of a highly skilled occupation. Programs are sponsored by apprenticeship organizations in partnership with colleges and DTCs.
- **College credit certificate.** College credit certificate programs are a series of college-credit courses that prepares students for entry-level employment in specific career fields or for career advancement. These certificates can generally be completed in 1 year or less. College credit certificate programs must be part of an A.S. or A.A.S. degree program. Examples include information technology technician, office specialist, computer programmer, and educational assistant.

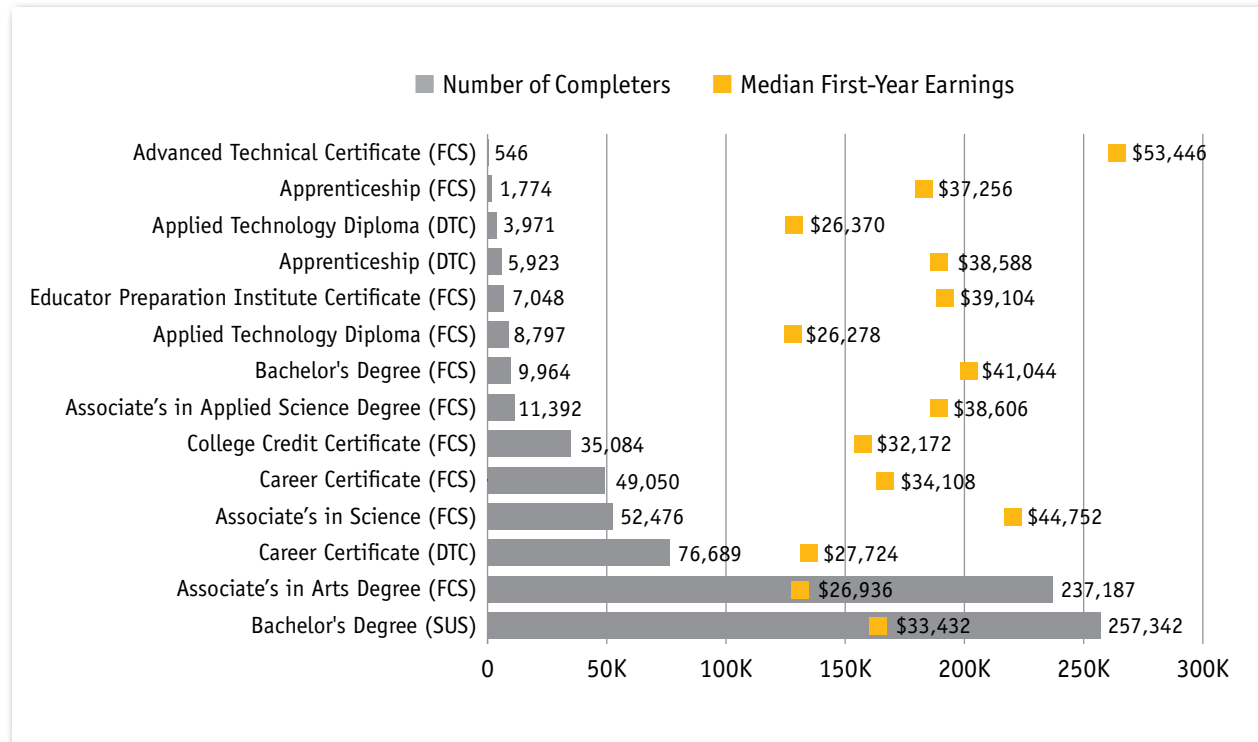
As noted in the following pages, the postgraduate career earnings vary among students who complete these different credentials. In addition, longer courses of study don't always lead to higher earnings after graduation. The data discussed in this report reflect outcomes for graduates and completers in their first year after graduation for a 5-year period from academic years 2007–08 to 2011–12.

Although this section focuses on associate's degrees and CTE program credentials, as a point of reference, Figure 1 shows the number of postsecondary academic credentials awarded by Florida institutions during the 5-year study period. The two most commonly awarded credentials in Florida were the bachelor's degree and the A.A. degree. The A.A. degree is designed as a pathway to a bachelor's degree. Compared with bachelor's and A.A. degrees, far fewer students completed career- and technical-oriented programs of study. For example, almost 240,000 A.A. degrees were awarded during the study period, compared with approximately 52,000 A.S. degrees and slightly more than 11,000 A.A.S. degrees. Together, Florida's colleges and DTCs awarded more than 125,000 career certificates, and colleges also awarded about 35,000 college credit certificates. This is consistent with a national trend in the rapid growth of career-oriented certificates, many of which have considerable value in the job market.

Figure 1 also shows the median first-year earnings associated with each career- and technical-oriented credential. The lowest wages were earned by students holding an applied technology diploma. Some of these students may still be attending school while in the job market, thus suppressing their earnings. With that in mind, the median first-year earnings of students who graduated with an A.S. degree were almost \$20,000 more than those of students with an applied technology diploma and more than \$11,000 more than students with a bachelor's degree from an institution in the State University System of Florida (SUS). The median first-year earnings of graduates with an A.S. degree were also higher than those of graduates who completed the far less common A.A.S. degree.

Students who completed certificate courses, on average, had higher first-year earnings than graduates with A.A. degrees. The median first-year earnings of graduates with A.A. degrees (\$26,936) were lower than that of graduates with career certificates from Florida's colleges (\$34,108) and from career and technical education schools (\$27,724). However, students who completed certificate courses, on average, had lower median first-year earnings than graduates with A.S. degrees (\$44,752) and A.A.S. degrees (\$38,606). The highest median first-year earnings (\$53,446) were achieved by the nearly 550 students who achieved an advanced technical certificate.

Figure 1: Number of Postsecondary Academic Credentials Awarded and Median First-Year Earnings, Academic Years 2007–08 Through 2011–12



Variation in First-Year Earnings of Graduates With Associate's Degrees

Associate's in Arts Degree

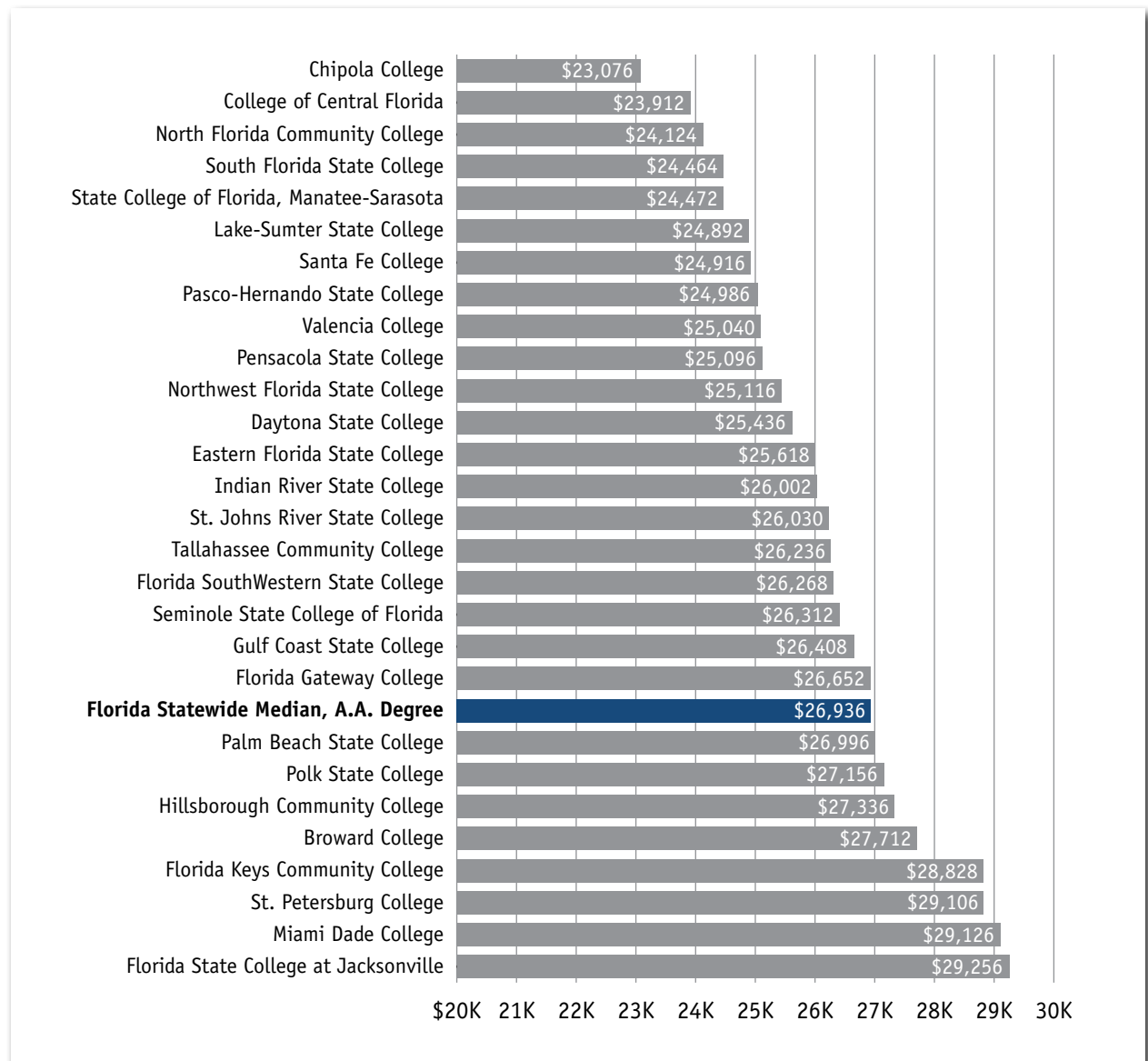
After the bachelor's degree, the most common degree granted in Florida is the A.A. degree. Almost 240,000 A.A. degrees were awarded during the 5-year study period. The A.A. degree is designed for students who plan to attend a 4-year institution as a junior and complete a bachelor's degree program. The A.A. degree requires 36 credit hours of general education and 24 credit hours of electives.

As shown in Figure 1, the median first-year earnings of all graduates with A.A. degrees were just under \$27,000. Figure 2 displays the median first-year earnings of graduates with A.A. degrees from specific colleges in Florida.⁴ More than \$6,000 separates the median first-year earnings of graduates from the college with the lowest (Chipola College, \$23,076) and highest (Florida State College at Jacksonville, \$29,256) earning A.A. graduates. However, the median first-year earnings of graduates from most colleges in the state were within \$3,000 of the state median (\$26,936).

The median first-year earnings of graduates from Florida's colleges did not exceed \$29,936, which is the state median plus \$3,000. However, the median first-year earnings of graduates from two colleges (Chipola College and the College of Central Florida) were less than \$23,963, which is the state median minus \$3,000. Although this report does not explain these differences, note that Chipola College, South Florida State College, and Northwest Florida State College are located in rural areas of the state where median earnings may be lower than those in urban areas. In contrast, the two schools (Florida State College at Jacksonville and Miami Dade College) from which A.A. graduates earned the most are located in the state's largest metropolitan areas. Graduates of schools in urban areas who stay in those urban areas may experience higher earnings.

⁴ On July 1, 2014, Edison State College changed its name to Florida SouthWestern State College, which is the name used throughout this report.

Figure 2: Median First-Year Earnings of Graduates With A.A. Degrees, by College



Associate's in Science Degree

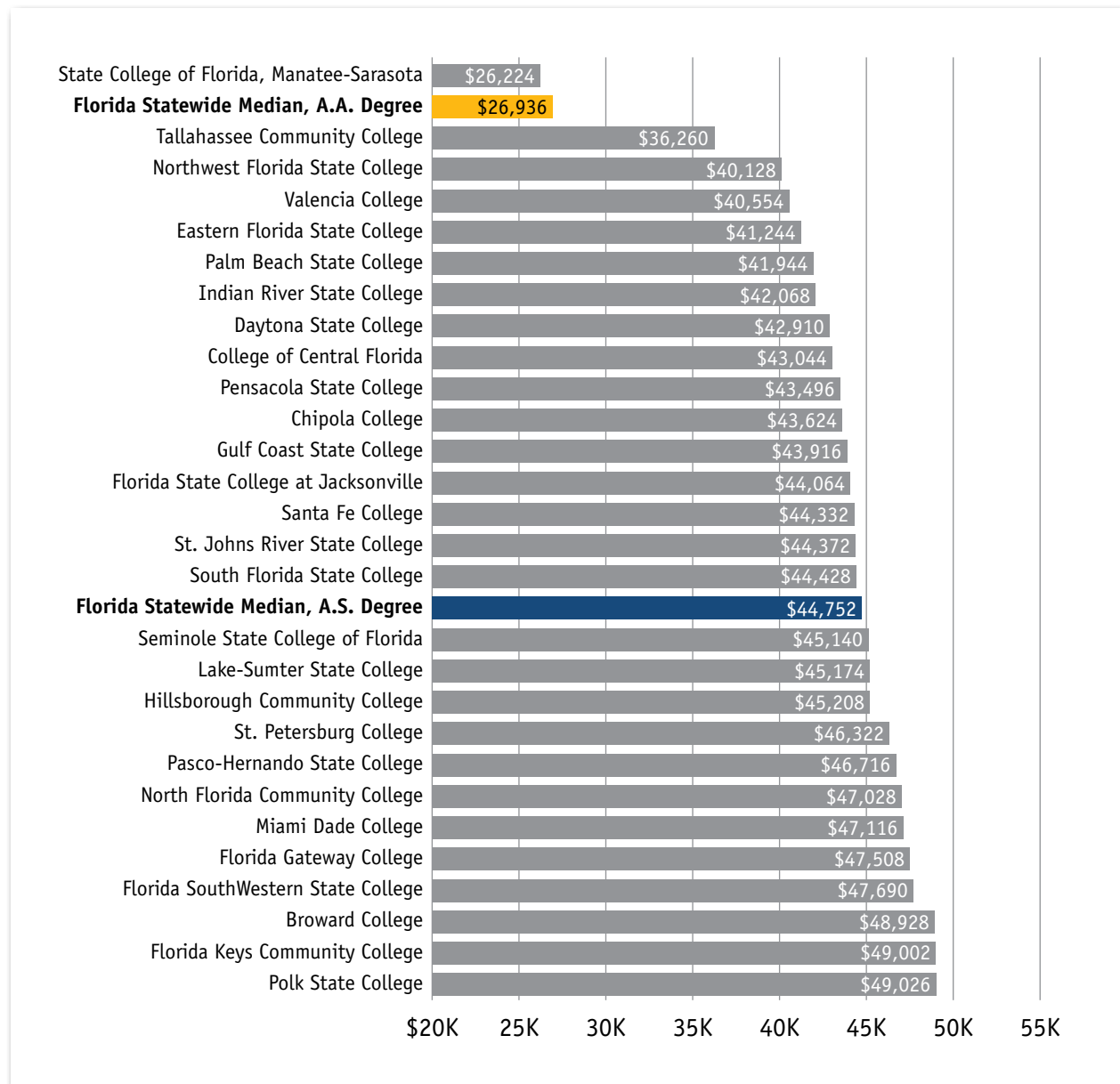
After the A.A. degree, the next most common 2-year degree awarded in Florida is the A.S. degree. About 52,000 A.S. degrees were awarded during the 5-year study period. A.S. degree programs, like other CTE programs, are designed to prepare students who are planning to enter a specific occupation.

As shown in Figure 3, the median first-year earnings of graduates with A.S. degrees were far higher (more than \$44,000) than those earned by graduates with A.A. degrees (slightly less than \$27,000). The median first-year earnings of graduates with A.S. degrees across Florida colleges varied substantially. At the high end, graduates with A.S. degrees from three colleges (Florida Keys Community College, Polk State College, and Broward College) had median first-year earnings above \$48,000. In contrast, graduates with A.S. degrees from one college (State College of Florida, Manatee-Sarasota) had median first-year earnings less than \$36,000. At \$26,224, the median first-year earnings of graduates with A.S. degrees from this school were lower than the statewide median for A.A. graduates. Based on the previous 5-year period, this represents a \$3,000 reduction in the median first-year earnings of graduates with A.S. degrees from this school.

This could be attributed to several factors, as discussed later in this report, such as the mix of programs and the strength of the regional labor market. In the section titled “What Students Study Matters” and at other points throughout this report, program comparisons are presented that can help isolate the effects of which programs institutions offer.⁵

⁵ This report presents highlights of the kinds of comparisons that are possible using the data at <http://www.beyondeducation.org>, which allows for more detailed comparisons of various outcomes at the program level.

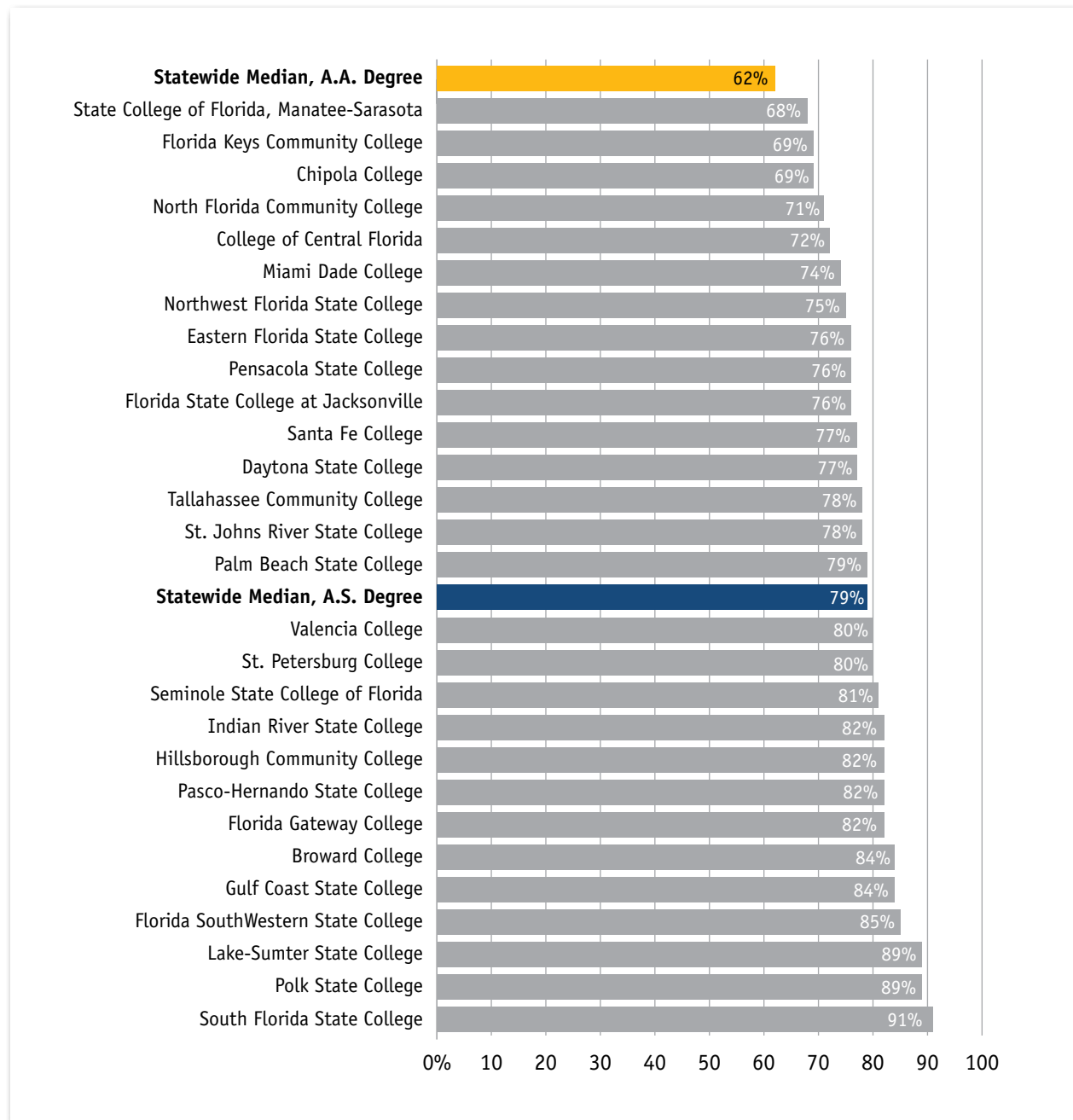
Figure 3: Median First-Year Earnings of Graduates With A.S. Degrees, by College



Employment Outcomes of Graduates With A.S. Degrees

Figure 4 shows the percentage of graduates with A.S. degrees that were employed 1 year after graduation, as reported in wage data from the Florida Unemployment Insurance (UI) and WRIS2 systems. About 80% of graduates with A.S. degrees were employed, but that percentage varied greatly by institution. For example, the median employment rate for graduates with A.S. degrees from three colleges (Florida Keys Community College; State College of Florida, Manatee-Sarasota; and Chipola College) was below 70%. Overall, graduates with A.S. degrees were employed at higher rates than even the statewide median rate for graduates with A.A. degrees. In short, graduates with A.S. degrees were more likely to find employment than graduates with A.A. degrees. This is not surprising because A.S. degrees are designed for students who plan to enter employment, while A.A. degrees are designed for students who plan to earn a 4-year bachelor's degree from a college or university.

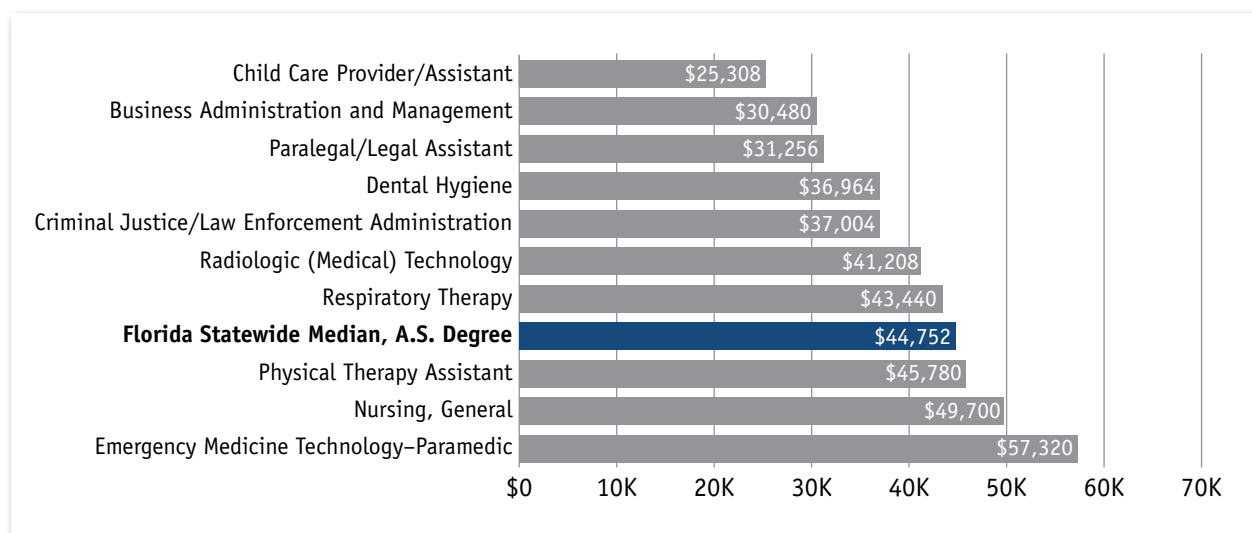
Figure 4: Employment Rates Among Graduates With A.S. Degrees, by College



What Students Study Matters

Graduates with A.A. degrees are classified into a single program of study (Liberal Arts and Sciences/Liberal Studies⁶). However, graduates with A.S. degrees are classified across a wider range of programs of study, and graduates from some programs earn far more than graduates from other programs. Figure 5 identifies the median first-year earnings of graduates with A.S. degrees in the most popular programs of study. Median first-year earnings ranged from a low of \$25,308 (Child Care Provider/Assistant) to more than \$57,000, nearly double (Emergency Medicine Technology-Paramedic).

Figure 5: Median First-Year Earnings of Graduates With A.S. Degrees From Popular Programs of Study Among Colleges in Florida



Per Table 1, first-year earnings and rates of employment differ among graduates with A.S. degrees across FCS institutions. About two-thirds of graduates with A.S. degrees in Business Administration and Management were found to be employed 1 year after graduation. Similarly, about 70% of graduates with degrees in Child Care Provider/Assistant or Computer Systems Networking and Telecommunications were found to be employed. In contrast, more than 80% of graduates in health care-related professions, such as Respiratory Therapy or Emergency Medicine Technology-Paramedic, were found to be employed. These types of data are potentially powerful for students who are interested in the prospects of the earnings of graduates with A.S. degrees from specific programs from specific colleges.

⁶ This classification and information about all other fields of study used in this report are defined by the U.S. Department of Education's Classification of Instructional Programs (CIP) Code.

Table 1: Employment Outcomes for Completers With A.S. Degrees in Popular Programs of Study Among Colleges in Florida

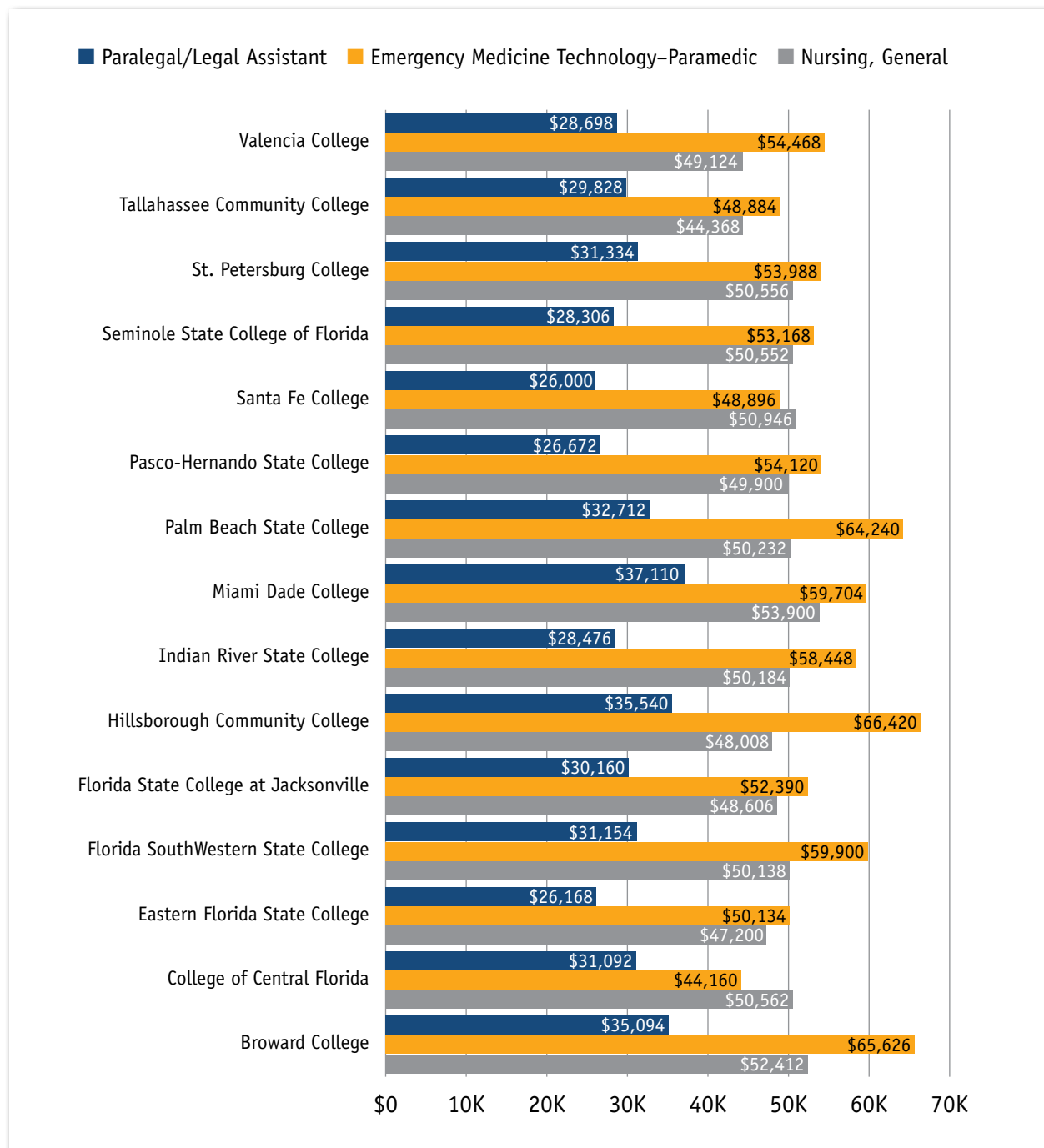
A.S. Degree Program	Number of Completers	Number Employed	Percent Employed
Emergency Medicine Technology-Paramedic	2,148	1,930	90%
Nursing, General	21,526	18,810	87%
Physical Therapy Assistant	1,090	908	83%
Respiratory Therapy	1,086	897	83%
Radiologic (Medical) Technology	1,563	1,272	81%
Dental Hygiene	1,388	1,105	80%
Criminal Justice/Law Enforcement Administration	1,764	1,347	76%
Paralegal/Legal Assistant	1,990	1,480	74%
Child Care Provider/Assistant	1,315	925	70%
Computer Systems Networking and Telecommunications	1,053	726	69%
Business Administration and Management	1,363	930	68%

Figure 6 displays the median first-year earnings of graduates with A.S. degrees from the three most popular programs (Paralegal/Legal Assistant, Emergency Medicine Technology–Paramedic, and Nursing) across the 13 colleges in Florida with sufficient data to meet reporting requirements. The variation across programs shows why this level of analysis is important.

Regardless of the college, median first-year earnings of graduates with degrees in Paralegal/Legal Assistant were far lower than those of graduates with degrees in Emergency Medicine Technology–Paramedic or Nursing. That said, median first-year earnings among graduates of Paralegal/Legal Assistant programs varied considerably across colleges, from a low of around \$26,000 (Eastern Florida State College, Santa Fe College, and Pasco-Hernando State College) to a high of \$35,000 (Broward College, Hillsborough Community College, and Miami Dade College).

The range in first-year earnings was somewhat more narrow among graduates of Nursing programs, ranging from less than \$49,000 (College of Central Florida, Tallahassee Community College, Florida State College at Jacksonville, and Eastern Florida State College) to more than \$52,000 (Broward College and Miami Dade College). The range in first-year earnings was greatest for graduates of Emergency Medicine Technology–Paramedic programs, ranging from around \$50,000 (College of Central Florida and Santa Fe College) to more than \$64,000 (Hillsborough Community College, Broward College, and Palm Beach State College). Again, these differences are likely affected by the location of the college (e.g., rural vs. urban areas and those in the larger and higher paying regional economies of Florida’s southeast coast).

Figure 6: Median First-Year Earnings of Graduates With A.S. Degrees From Three Popular Programs Among Colleges in Florida



Note: This figure includes only those colleges that could provide sufficient data for all three programs.

Associate's in Applied Science Degree

More than 11,000 students in Florida earned A.A.S. degrees during academic years 2007–08 through 2011–12. The focus of A.A.S. degrees is training students for high-technology careers.

The median statewide earnings of graduates with A.A.S. degrees were \$38,606, which is considerably higher than those of graduates with A.A. degrees (\$26,936) but more than \$6,000 lower than those with A.S. degrees (\$44,752). The range in median first-year earnings among graduates with A.A.S. degrees varied substantially, from around \$27,000 (Florida Gateway College) to more than \$51,000 (Palm Beach State College) (Figure 7).

Graduates with A.A.S. degrees from three colleges (Pasco-Hernando State College, Florida Gateway College, and Valencia College) had median first-year earnings of less than \$30,000. In contrast, the median first-year earnings of graduates with A.A.S. degrees from three other colleges (State College of Florida, Manatee-Sarasota; South Florida State College; and Palm Beach State College) were greater than \$45,000, which is around 50% higher than graduates of these other institutions. Again, these differences are affected by the distribution of graduates across programs, where graduates earn high-paying versus low-paying wages in the labor market, and by the location of the college (e.g., rural vs. urban areas and those in the larger and higher paying regional economies of Florida's southeast coast).

Figure 7: Median First-Year Earnings of Graduates With A.A.S. Degrees, by College

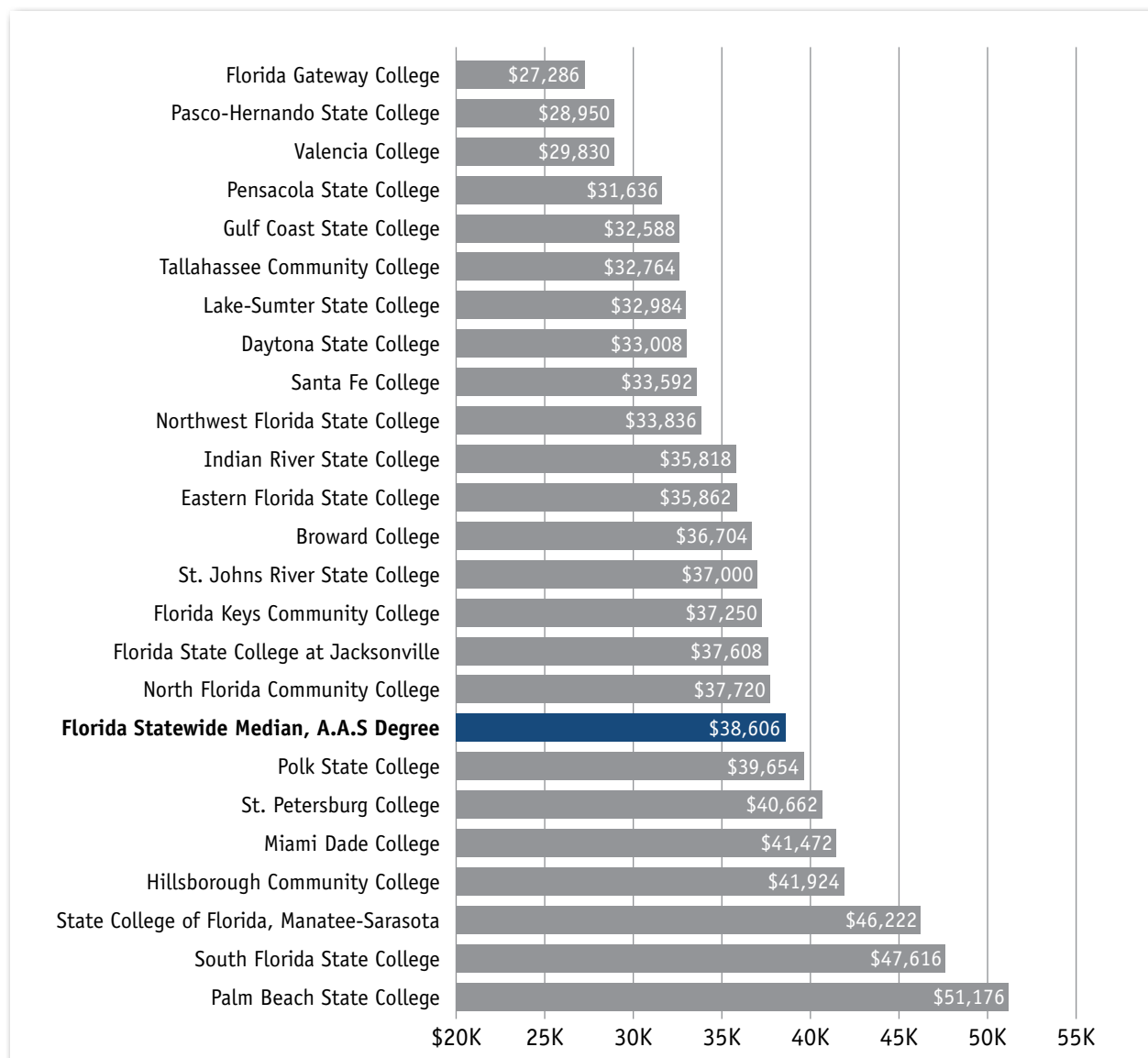


Table 2 shows employment outcomes for graduates with A.A.S degrees from FCS institutions. Far below any other college, only around 41% of graduates with A.A.S. degrees from Northwest Florida State College found employment. This is 20 percentage points lower than the next two colleges (Seminole State College of Florida and Pensacola State College). At the high end of the scale, 85% of graduates from five colleges (South Florida State College, St. Johns River State College, Polk State College, North Florida Community College, and College of Central Florida) were employed. Both Northwest Florida State College and Pensacola State College adjoin other states,

so some graduates from these colleges may be employed in those states which do not currently participate in WRIS2.

Table 2: Employment Outcomes for Completers With A.A.S. Degrees, by College

College	Number of Completers	Number Employed	Percent Employed
College of Central Florida	N/A	7	100%
North Florida Community College	22	21	95%
Polk State College	291	260	89%
St. Johns River State College	47	41	87%
South Florida State College	320	278	87%
Hillsborough Community College	686	578	84%
Palm Beach State College	709	588	83%
State College of Florida, Manatee-Sarasota	1,521	1,245	82%
Miami Dade College	209	167	80%
Tallahassee Community College	131	101	77%
Broward College	858	658	77%
Florida Gateway College	25	19	76%
Indian River State College	771	569	74%
Lake-Sumter State College	161	117	73%
Daytona State College	1,050	758	72%
St. Petersburg College	57	41	72%
Florida Keys Community College	21	15	71%
Eastern Florida State College	199	142	71%
Santa Fe College	278	198	71%
Florida State College at Jacksonville	841	597	71%
Gulf Coast State College	431	299	69%
Valencia College	318	220	69%
Pasco-Hernando State College	103	66	64%
Pensacola State College	1,191	763	64%
Seminole State College of Florida	N/A	5	63%
Northwest Florida State College	1,139	472	41%

Note: N/A = results are suppressed for reporting purposes when the minimum number of completers is less than 10.

Figure 8 shows a wide range in median first-year earnings among graduates with A.A.S. degrees in the most popular A.A.S. fields of study in the state. Median first-year earnings ranged from a low of around \$27,000 (Executive Secretarial) to more than \$50,000 (Nursing, General and Electrical, Electronic, and Communications Engineering Technology/Technician). Despite falling considerably behind these two top-paying degree programs, median first-year earnings in five other fields still exceeded the statewide median for A.A.S. degrees—Radiologic (Medical) Technology,

Respiratory Therapy, Criminal Justice/Law Enforcement Administration, Physical Therapy Assistant, and Trade and Industrial Management.

In contrast and notably, graduates with A.A.S. degrees in Business Administration and Management had median first-year earnings below that of graduates with A.A.S. degrees in general (this was also true for graduates with A.S. degrees in business).

Figure 8: Median First-Year Earnings of Graduates With A.A.S. Degrees, by Popular Areas of Study

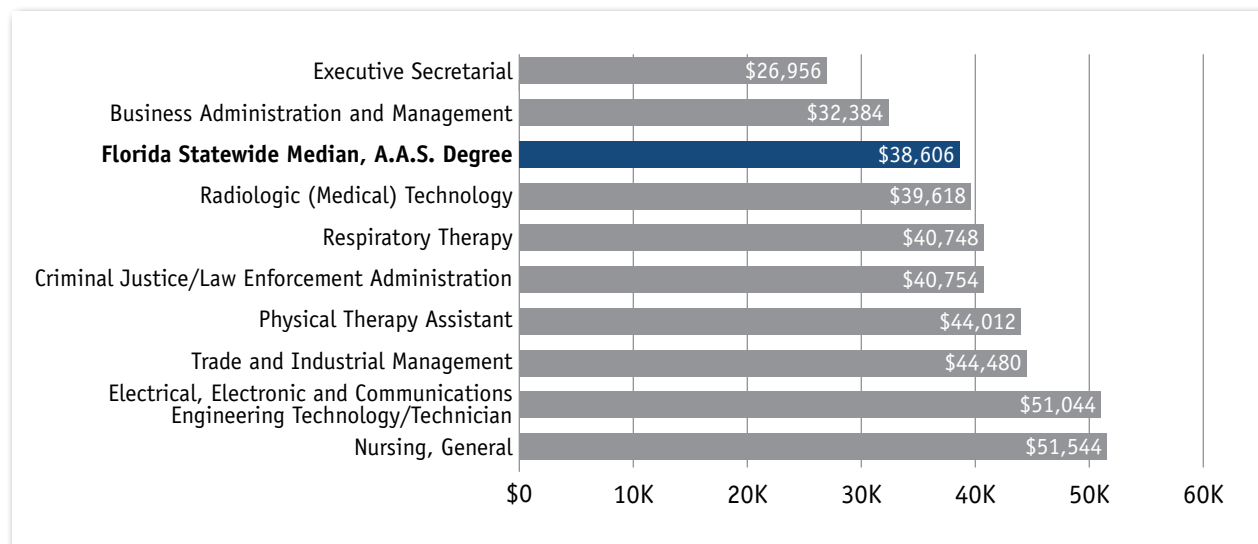
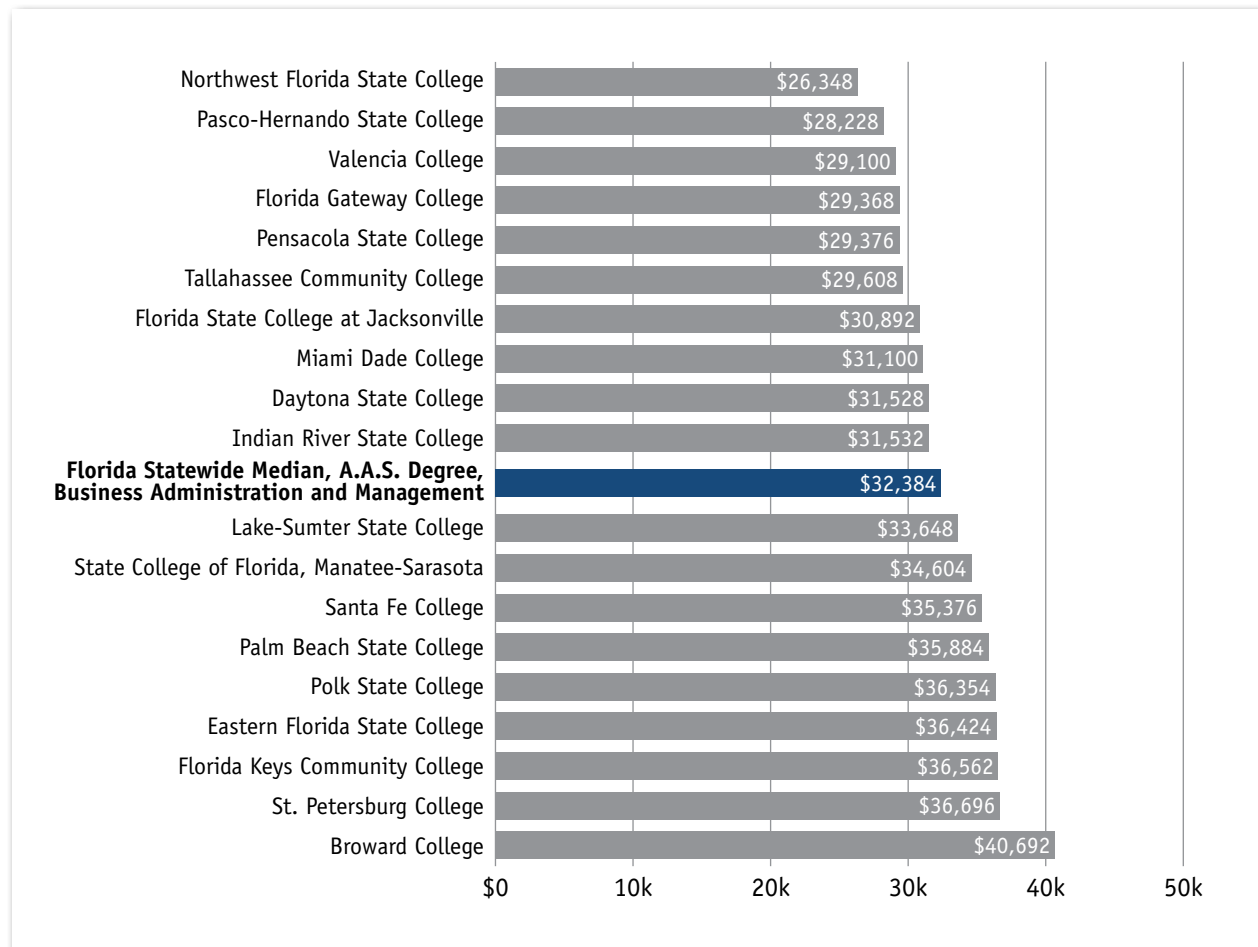


Figure 9 reports the range of median first-year earnings of graduates with A.A.S. degrees in Business Administration and Management across the 19 colleges that met reporting requirements. Almost \$15,000 separated Northwest Florida State College, whose graduates had the lowest median first-year earnings, from Broward College, whose graduates had the highest. The median first-year earnings of graduates with A.A.S. degrees in Business Administration and Management from six colleges are less than \$30,000. In contrast, graduates of Broward College had earnings of more than \$40,000, and for six other colleges (Santa Fe College, Palm Beach State College, Polk State College, Eastern Florida State College, Florida Keys Community College and St. Petersburg College), median first-year earnings of graduates with A.A.S. degrees in Business Administration and Management exceeded \$35,000.

Figure 9: Median First-Year Earnings of Graduates With A.A.S. Degrees in Business Administration and Management, by College

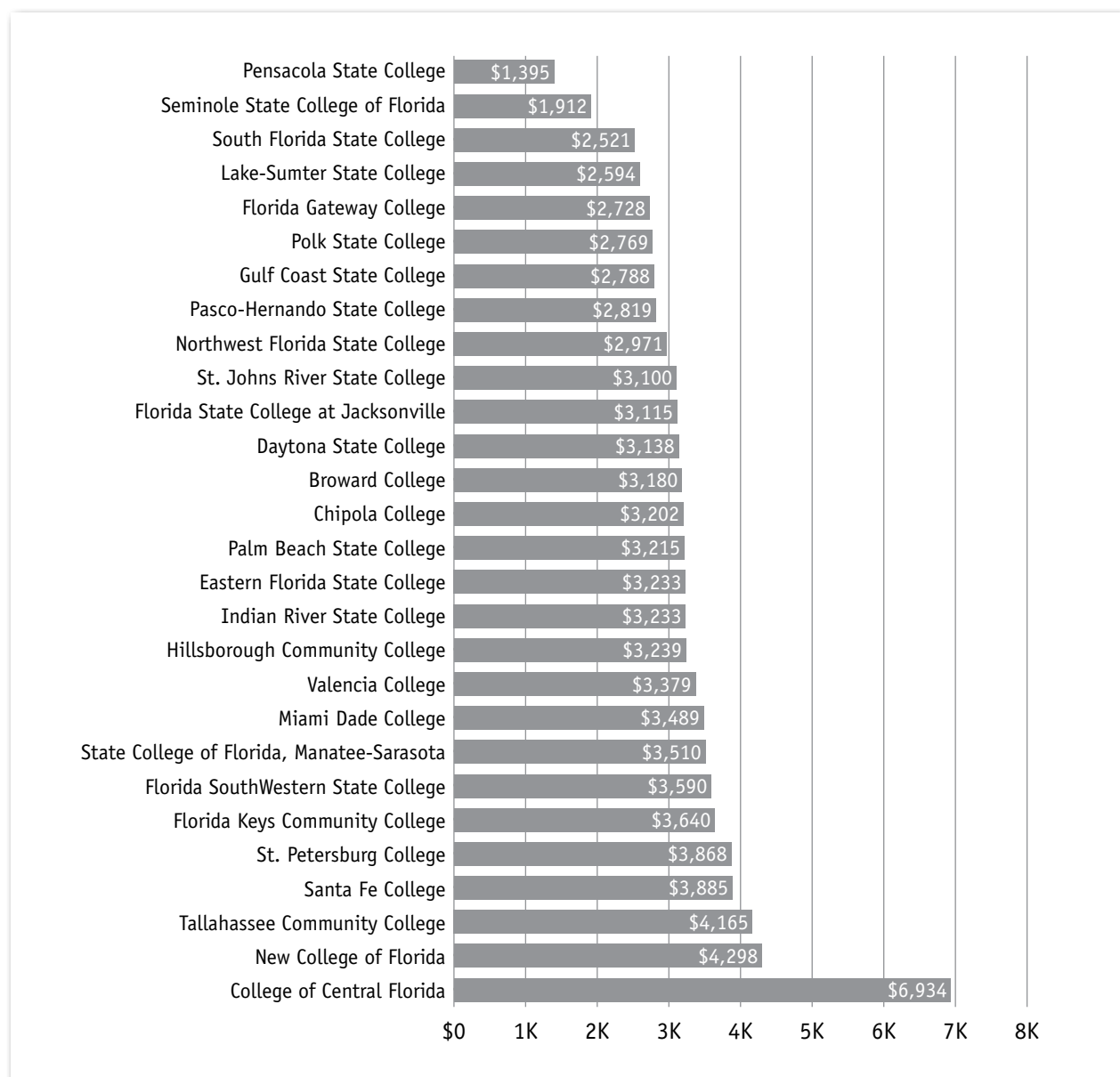


Debt Levels by College

The amount of student debt is a growing concern in Florida and across the nation. Compared with students who are pursuing bachelor's or advanced degrees, debt is not always a concern for those enrolled in shorter degree programs. Nonetheless, many students in colleges in Florida are taking out federal loans to help pay for their education. Figure 10 shows the average federal debt level per student in 2011–12 at each college in Florida. The range is substantial, from less than \$3,000 per student (Pensacola State College, Seminole State College of Florida, South Florida State College, Lake-Sumter State College, Florida Gateway College, Polk State College, Gulf Coast State College, Pasco-Hernando State College, and Northwest Florida State College) to almost \$7,000 per student (College of Central Florida).

The data about debt are self-reported by each college to Florida's Department of Education, Office of Student Financial Assistance. The data reflect the average federal student loan debt of all students (not just graduates) attending college in 2011–12. Data also include 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 2011–12 at each college, divided by the number of students attending the college that academic year. It does not include private loans or other debt issued by nonfederal government sources that students may have sought to help finance their education.

Figure 10: Average Federal Loan Amount per Student, by College, 2011–12



Career Certificates and College Credit Certificates

Large numbers of students enroll in Florida's public postsecondary institutions to earn certificates or diplomas. Two of the most popular programs are career certificates and college credit certificates. Additionally, almost 1,700 students completed apprenticeships during the 5-year study period.

This section highlights key patterns found in the award of more than 160,000 certificates to students during the 5-year study period. Details about all programs, including those not analyzed in this report, are available at <http://www.beyondeducation.org>.

Career Certificates

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, and practical nursing). Institutions in the FCS and DTCs award these types of certificates. Systemic differences exist in the fields in which these certificates are awarded, including type of school, median first-year earnings, and student outcomes.

As shown in Table 3, DTCs awarded 60% of all career certificates, far more than Florida's colleges. However, students who completed certificates from FCS institutions were more successful in the labor market. For example, 75% of completers of career certificates from FCS institutions found employment, compared with 67% of those from DTCs.⁷ In addition, the median first-year earnings of completers from colleges were higher (\$34,108) than that of those with certificates from DTCs (\$27,724). The gap may be attributable to the mixture of programs offered by DTCs compared with those offered by FCS institutions. For example, FCS institutions enroll a much higher percentage of students in career certificate programs, such as Law Enforcement/Public Safety, that traditionally have higher placement rates and earnings compared with other career certificate programs, such as Child Care.

⁷ Part of this gap may be a function of the coverage of the 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 UI data.

Table 3: Employment Outcomes of Completers With Career Certificates Awarded by Florida College System Institutions and District Technical Centers

Outcome	Career Certificate (FCS)	Career Certificate (DTCs)
Median First-Year Earnings	\$ 34,108	\$ 27,724
Total Completers (Graduates)	49,050	76,689
Total Employed	36,786	51,365
Total Percent Employed	75%	67%

Career Certificates Awarded by District Technical Centers

Table 4 presents selected student outcomes for the most popular career certificate programs offered by DTCs. Median first-year earnings ranged from a low of more than \$20,000 (Cosmetology) to a high of more than \$33,000 (Practical Nursing). In addition to Cosmetology, other lower paying career certificates included Patient Care Technician, Nursing Assistant (Long-Term Care), Nursing Assistant (Articulated), Automotive Service Technology, Phlebotomy, and Child Care Center Operations.

Table 4: Employment Outcomes for Completers With Popular Career Certificates Awarded by District Technical Centers

Area of Study	Median First-Year Earnings	Number Employed	Percent Employed
Cosmetology	\$20,170	1,797	59%
Patient Care Technician	\$21,398	2,103	64%
Nursing Assistant (Long-Term Care)	\$21,672	2,389	67%
Nursing Assistant (Articulated)	\$22,158	1,593	64%
Automotive Service Technology	\$22,964	1,558	59%
Phlebotomy	\$23,300	1,840	65%
Child Care Center Operations	\$24,604	1,875	67%
Florida Statewide Median, Career Certificates, DTCs	\$27,724	51,365	67%
Fire Fighter	\$30,788	3,925	77%
Commercial Vehicle Driving	\$32,988	1,290	59%
Practical Nursing	\$33,808	7,548	79%
Correctional Officer	\$34,992	1,371	87%
Law Enforcement Officer	\$37,102	1,334	78%

Table 5 shows median first-year earnings and employment rates of completers of career certificates awarded by specific DTCs. Median first-year earnings varied across DTCs. At the low end, completers from three DTCs (Ridge Career Center, Learey Technical Center, and Lively Technical Center) had median first-year earnings of less than \$25,000. At the high end, completers from Miami Lakes Educational Center and Fort Myers Institute of Technology had median first-year earnings of more than \$34,000. Additionally, completers from four DTCs (Sarasota County Technical Institute, Marion County Community Technical and Adult Education Center, Lake Technical Center, and Mid-Florida Tech) had median first-year earnings of more than \$30,000.

Table 5: Employment Outcomes for Completers of Career Certificates, by District Technical Center

District Technical Center	Median First-Year Earnings	Number Employed	Percent Employed
Ridge Career Center	\$24,400	1,429	70%
Learey Technical Center	\$24,628	1,591	65%
Lively Technical Center	\$24,996	961	62%
Lindsey Hopkins Technical Education Center	\$25,440	1,022	52%
Traviss Career Center	\$25,440	1,055	73%
Robert Morgan Educational Center	\$25,908	1,264	64%
Orlando Tech	\$26,054	1,281	71%
Sheridan Technical Center	\$26,488	2,831	61%
Lorenzo Walker Institute of Technology	\$26,744	1,226	70%
Atlantic Technical Center	\$26,844	1,777	63%
Pinellas Technical Education Center–St. Petersburg	\$27,118	1,917	69%
Manatee Technical Institute	\$27,254	1,995	70%
Technical Education Center of Osceola	\$27,512	1,133	68%
Florida Statewide Median, Career Certificates, DTCs	\$27,724	51,365	67%
McFatter Technical Center	\$27,828	2,598	67%
First Coast Technical College	\$28,056	2,113	73%
Erwin Technical Center	\$28,548	1,824	70%
Pinellas Technical Education Center–Clearwater	\$28,736	1,261	68%
Washington-Holmes Technical Center	\$29,088	996	63%
Withlacoochee Technical Institute	\$29,088	989	68%
George Stone Technical Center	\$29,760	1,021	63%
Sarasota County Technical Institute	\$30,532	1,499	74%
Marion County Community Technical and Adult Education Center	\$30,840	1,972	74%
Lake Technical Center	\$31,732	1,960	76%
Mid-Florida Tech	\$32,068	2,692	72%
Miami Lakes Educational Center	\$34,762	1,680	65%
Fort Myers Institute of Technology	\$36,286	2,432	75%

As noted previously, the gap in earnings could be driven in part by the labor market served by the different DTCs. The mix of program offerings will also affect overall earnings outcomes. DTCs that focus on higher paying occupations and industries will have graduates with higher median first-year earnings than DTCs that graduate more students in lower earning occupations and professions.

Figure 11 shows the median first-year earnings of graduates with career certificates awarded by DTCs. Earnings outcomes varied considerably, ranging from a low of \$20,244 (South Dade Educational Center) to a high of \$37,700 (George T. Baker Aviation).

Figure 11: Median First-Year Earnings of Completers With Career Certificates, by District Technical Center

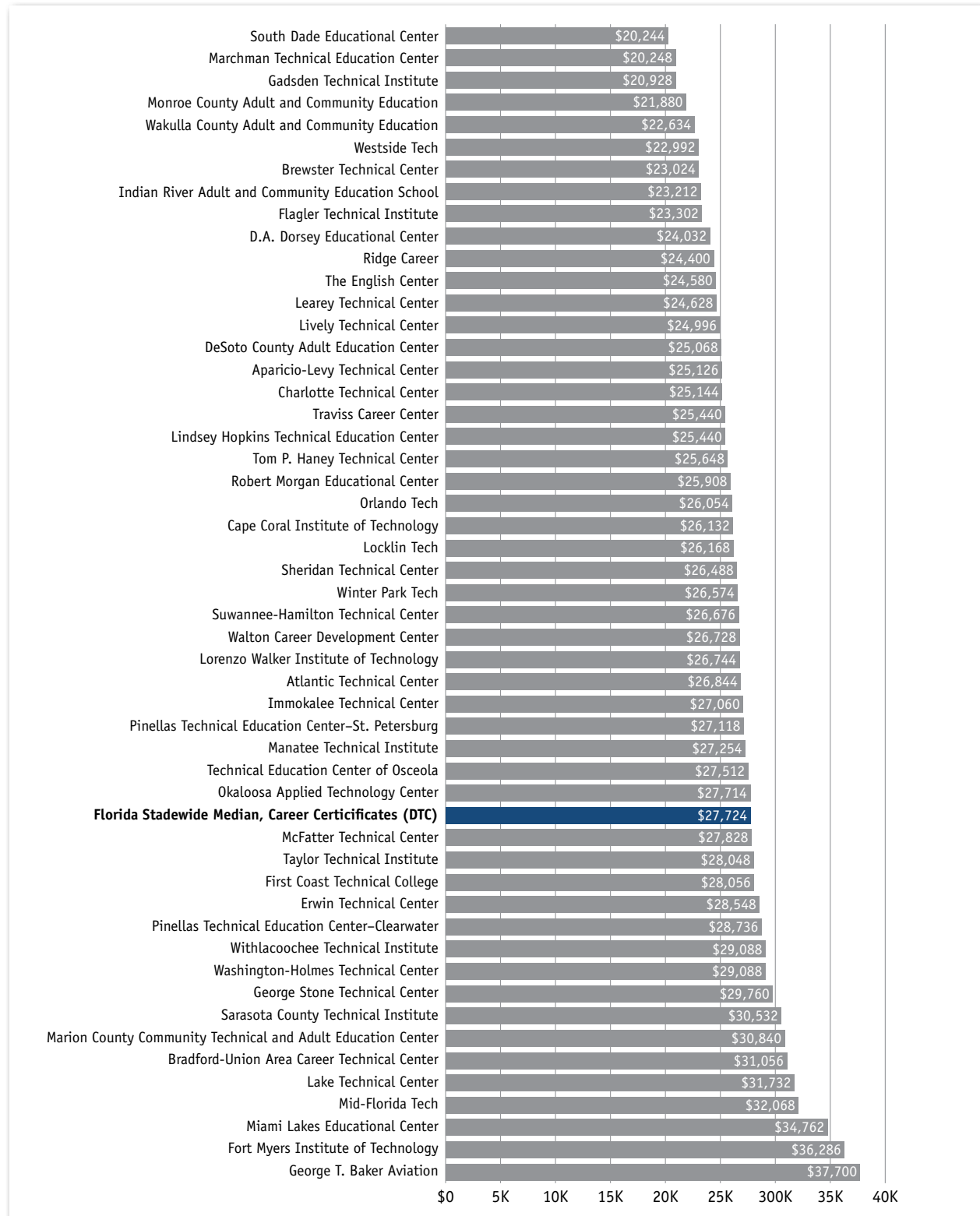
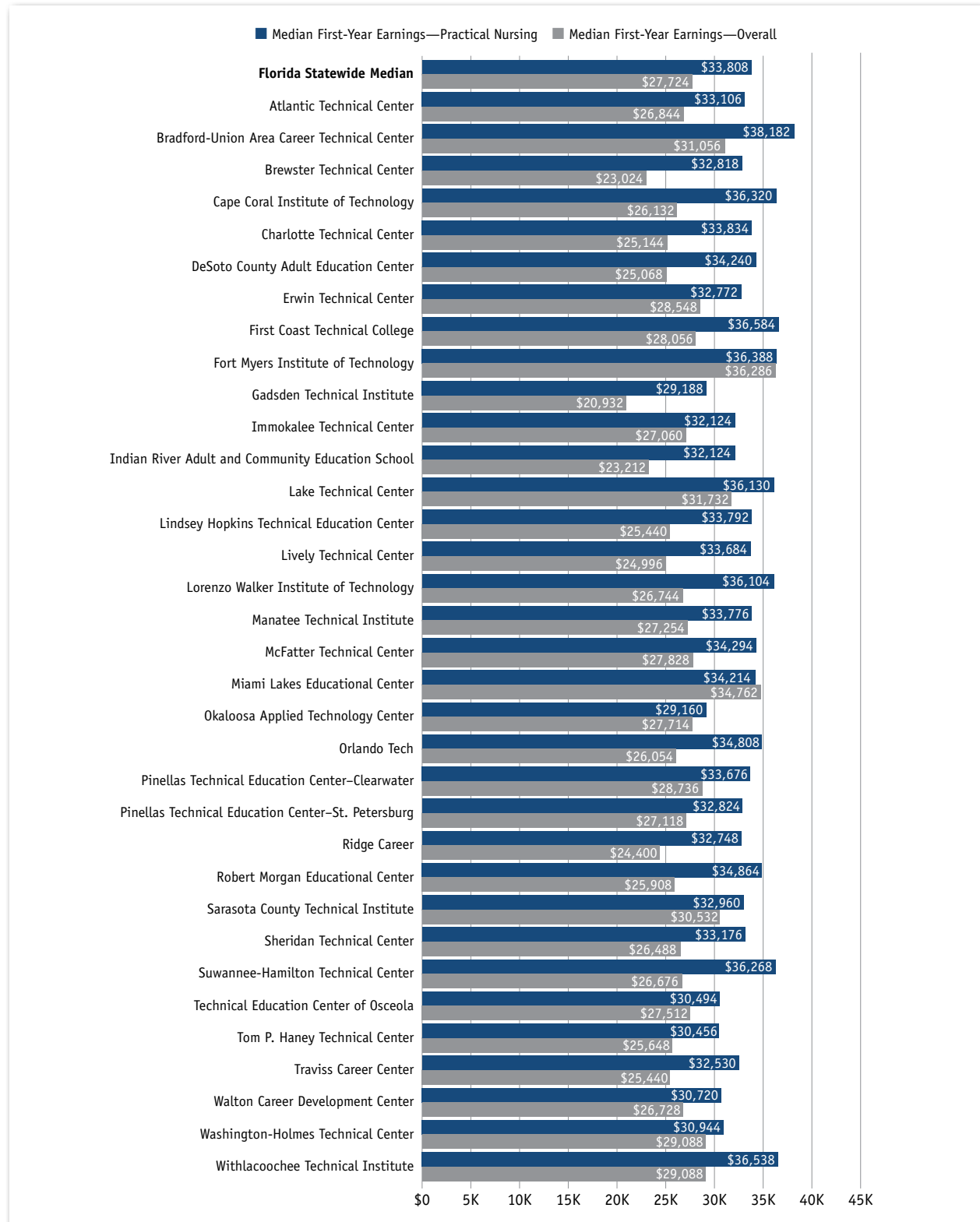


Figure 12 shows the range of median first-year earnings of graduates from DTCs who completed a career certificate in Practical Nursing, compared with the overall median first-year earnings of completers among all career certificates awarded by that DTC. Among all DTCs listed, the median first-year earnings for graduates with a career certificate in Practical Nursing exceeded the overall median first-year earnings among completers of that DTC.

Figure 12: Median First-Year Earnings of Completers With Career Certificates Overall and Those With Career Certificates in Practical Nursing, by District Technical Center



Career Certificates Awarded by the Florida College System

Colleges in Florida also award career certificates, but not at the frequency of DTCs. Colleges in Florida also tend to produce career certificates in somewhat different areas than DTCs. As noted in Figure 13, the statewide median first-year earnings of completers with career certificates from FCS institutions were almost \$35,000. The median first-year earnings of completers from eight colleges were within \$1,000 of the state median and 11 were within \$2,000 of the state median. In short, a fairly tight clustering of median first-year earnings existed across many of the state's colleges. Only completers of career certificates from Daytona State College and Pensacola State College had median first-year earnings of less than \$30,000. At the other end of the distribution, completers from four colleges (Florida Keys Community College, Valencia College, St. Petersburg College, and Broward College) had median first-year earnings of more than \$40,000. This overall convergence hides some great differences at the program level and again shows why detailed program-level analysis is essential.

Figure 13: Median First-Year Earnings of Completers With Career Certificates, by College

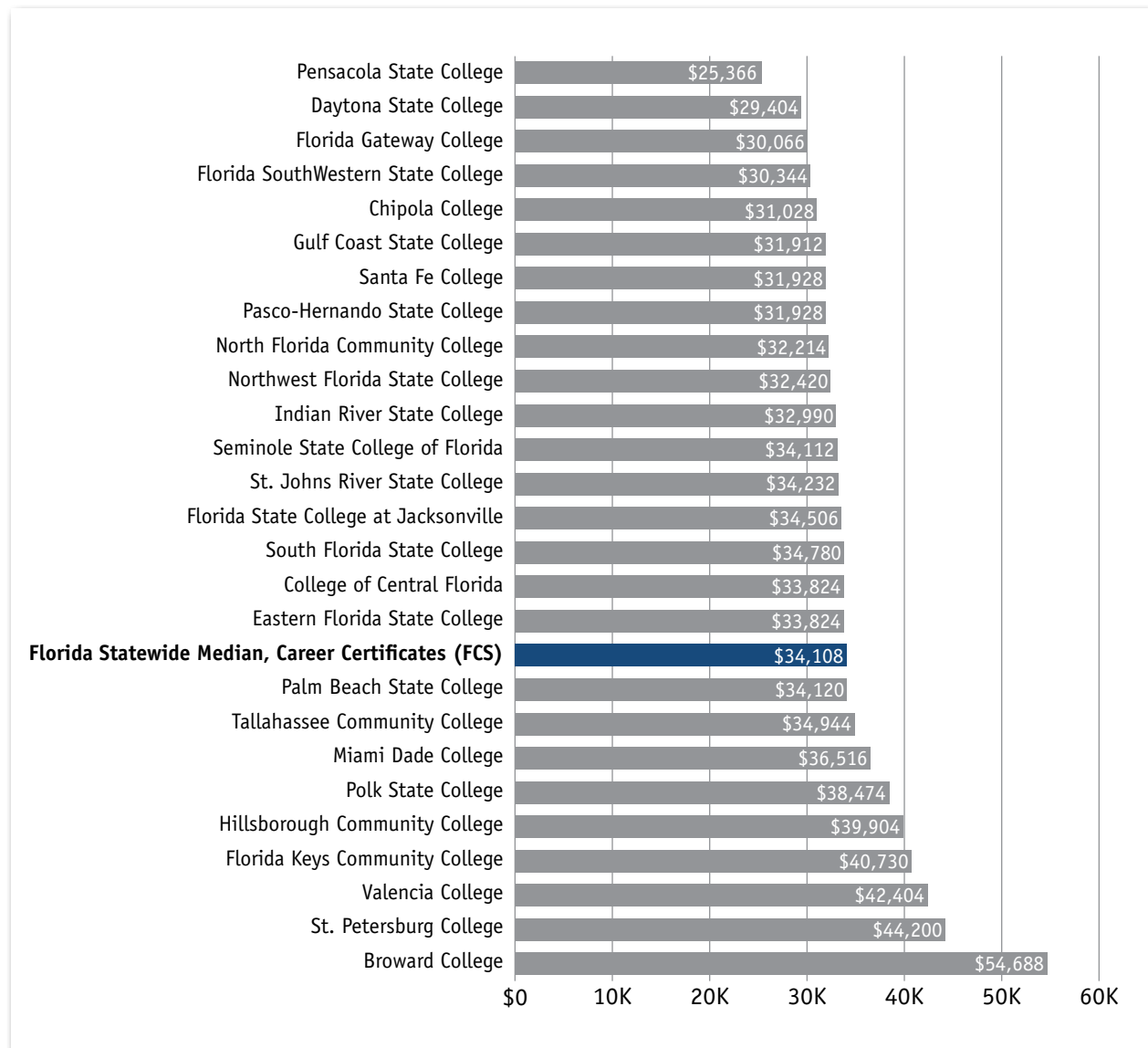
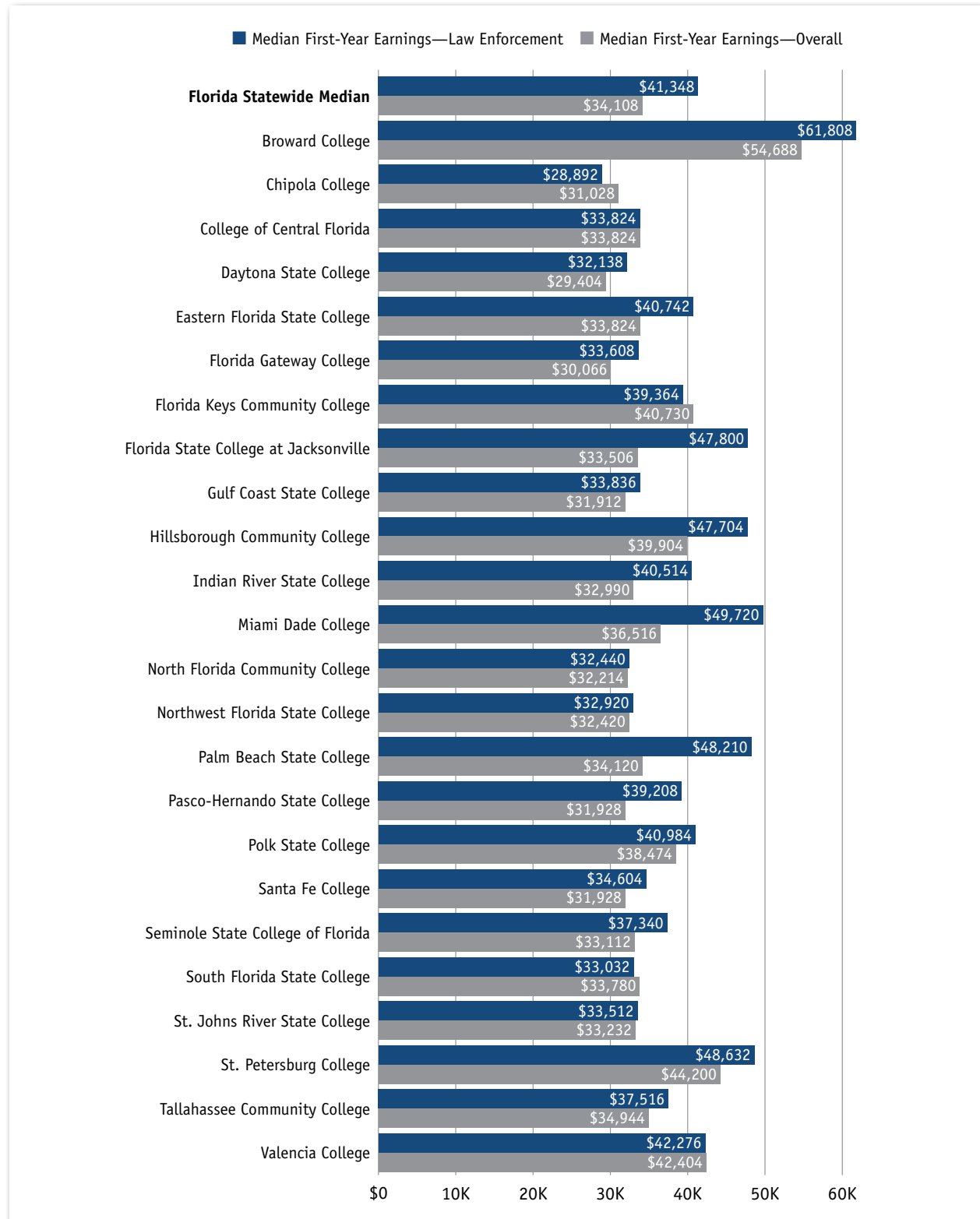


Figure 14 compares the median first-year earnings of graduates with a career certificate in Law Enforcement, the most popular career certificate awarded by FCS institutions, with the overall median first-year earnings of completers for all career certificate programs at that institution.

Overall, students who completed career certificates at Miami Dade College had median first-year earnings that were close to the statewide median for all completers of career certificates. However, completers who earned a career certificate in Law Enforcement earned more than \$8,000 above the state median for career certificates in Law Enforcement. Compared with the state median for students completing a career certificate in Law Enforcement, completers of career certificates in Law Enforcement from Palm Beach State College and Florida State College at Jacksonville also earned substantially more. Yet overall, completers of career certificates from those two colleges earned close to the overall state median for completers of all career certificates from FCS institutions.

In contrast, completers of all career certificates from Chipola College had median first-year earnings that exceeded the earnings of those with career certificates in Law Enforcement by more than \$2,000. Completers of career certificates in Law Enforcement from only three colleges (Florida Keys Community College, South Florida State College, and Valencia College) earned less than the completers of all career certificates at that college (but in these cases, the gap was smaller than that of Chipola College).

Figure 14: Median First-Year Earnings of All Completers With Career Certificates Overall and Those With Career Certificates in Law Enforcement, by College



College Credit Certificates

College credit certificate programs are a series of college-credit courses (typically less than 60 credits) that prepares students for entry-level employment in specific career fields or for career advancement. The length of these programs varies, but they can generally be completed in 1 year or less, and they are part of an A.S. or A.A.S. degree program. Programs are available in a wide range of vocations, from automotive collision repair to applied welding technologies. More than 30,000 college credit certificates were awarded during the 5-year study period.

With statewide median first-year earnings of more than \$32,000, completers with college credit certificates typically earned less than those who completed many of the other credentials examined in this section. However, completers of college credit certificates had, on average, higher median first-year earnings than those who completed career certificates from DTCs and graduates with A.A. degrees.

Table 6 shows that completers with college credit certificates from six institutions (Pensacola State College, Florida Gateway College, St. Johns River State College, Seminole State College of Florida, Valencia College, and Gulf Coast State College) had median earnings of less than \$30,000. In contrast, completers with college credit certificates from five colleges (St. Petersburg College, Lake Sumter State College, South Florida State College, North Florida Community College, and Chipola College) had median first-year earnings of more than \$40,000. Completers with these college credit credentials from Lake-Sumter State College had the highest median first-year earnings, approaching \$50,000. In comparison, the median first-year earnings of graduates with bachelor's degrees from a university was around \$33,000, which is lower than the median first-year earnings of completers with college credit certificates from most institutions. Of note, completers with college credit certificates from Chipola College earned far more than completers of other credentials at the college.

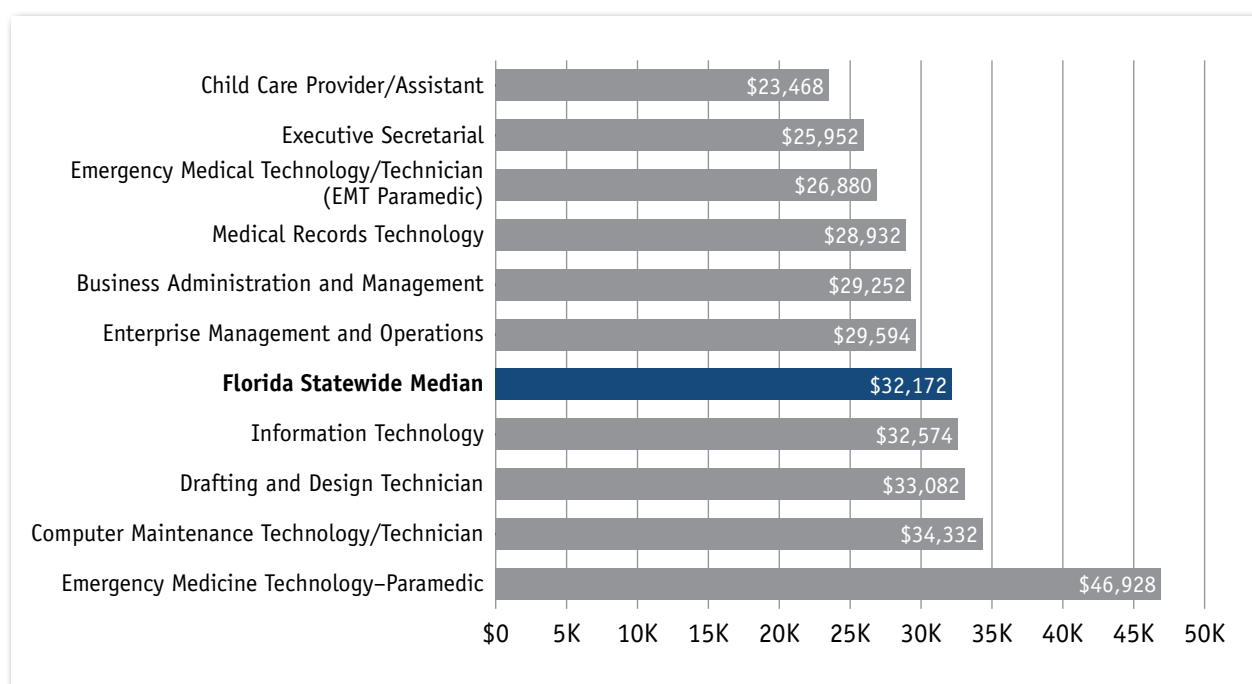
Table 6: Employment Outcomes for Completers With College Credit Certificates, by College

College	Number of Completers	Median First-Year Earnings	Number Employed	Percent Employed
Lake-Sumter State College	139	\$49,894	117	84%
Chipola College	57	\$47,696	51	89%
South Florida State College	131	\$46,430	112	86%
North Florida Community College	118	\$44,580	101	86%
St. Petersburg College	1,555	\$40,952	1,122	72%
College of Central Florida	844	\$38,420	664	79%
Florida Keys Community College	52	\$38,204	24	46%
Broward College	1,691	\$37,932	1,353	80%
Pasco-Hernando State College	464	\$35,400	337	73%
Tallahassee Community College	177	\$34,924	128	72%
Indian River State College	1,324	\$34,764	974	74%
Florida SouthWestern State College	1,366	\$34,420	1,094	80%
Santa Fe College	979	\$33,350	678	69%
Daytona State College	1,459	\$33,282	977	67%
Miami Dade College	3,810	\$32,318	2,726	72%
Hillsborough Community College	2,416	\$32,312	1,835	76%
Florida Statewide Median, College Credit Certificates, FCS	35,084	\$32,172	25,301	72%
Northwest Florida State College	723	\$32,078	485	67%
Florida State College at Jacksonville	2,236	\$31,776	1,560	70%
Eastern Florida State College	1,553	\$30,664	965	62%
Polk State College	364	\$30,504	290	80%
Palm Beach State College	1,919	\$30,132	1,421	74%
Seminole State College of Florida	2,597	\$29,868	1,801	69%
Pensacola State College	622	\$29,048	389	63%
Valencia College	7,873	\$29,032	5,674	72%
Florida Gateway College	224	\$28,456	145	65%
St. Johns River State College	214	\$27,592	139	65%
Gulf Coast State College	241	\$26,400	185	77%
State College of Florida, Manatee-Sarasota	10	N/A	6	60%

Note: N/A = results are suppressed for reporting purposes when the minimum number of completers is less than 10.

Figure 15 identifies the median first-year earnings of completers with college credit certificates from the most popular college credit certificate programs. Completers of college credit certificates in Child Care Provider/Assistant had the lowest median first-year earnings (around \$23,500), followed by Executive Secretarial (nearly \$26,000). At the high end of the scale, completers of college credit certificates in Emergency Medicine Technology-Paramedic had median first-year earnings around \$47,000, which is about \$13,000 more than the next highest area of study (Computer Maintenance Technology/Technician).

Figure 15: Median First-Year Earnings of Completers With College Credit Certificates in Popular Programs



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 assistance⁸—another indicator of the financial well-being of students who complete different programs.

Table 7 reports the percentage of completers found in the wage database to have received public assistance. A substantial number of graduates and completers received public assistance. Of note, the levels reported are not adjusted for differences in the skill level or income level of students who enroll in these different programs—that is, these outcome measures are “unadjusted” for such factors known to affect student success. Keeping this in mind, Table 8 shows that about 19% of completers of career certificates from DTCs received public assistance, almost double the percentage of graduates and completers who received their degrees and certificates from FCS institutions.

Graduates with associate’s degrees were less likely to have received public assistance than those who earned certificates. Only around 4% of graduates and completers received public assistance in the year after graduation or completion. This is not surprising considering the higher median first-year earnings of graduates with A.S. degrees, as documented previously.

Table 7: Level of Public Assistance, by Credential

Credential	Number of Completers	Number Who Received Public Assistance	Percent Public Assistance
Career Certificate (DTC)	76,689	14,825	19%
Applied Technology Diploma (DTC)	3,971	439	11%
Apprenticeship (DTC)	5,923	646	11%
Career Certificate (FCS)	49,050	5,078	10%
College Credit Certificate (FCS)	35,084	3,005	9%
Apprenticeship (FCS)	1,774	131	7%
Applied Technology Diploma (FCS)	8,797	631	7%
Associate’s in Applied Science (FCS)	11,392	816	7%
Associate’s in Arts (FCS)	237,187	14,940	6%

⁸ For purposes of this report, public assistance includes a unique count of graduates and completers who received Temporary Assistance for Needy Families and/or Supplemental Nutrition Assistance Program services.

Completers With Career Certificates Who Received Public Assistance

Table 8 shows the percentage of graduates and completers of career certificates who received public assistance by DTC. More than 30% of graduates and completers from nine DTCs received public assistance: DeSoto County Adult Education Center, Wakulla County Adult and Community Education, Lindsey Hopkins Technical Education Center, Immokalee Technical Center, Suwannee-Hamilton Technical Center, Sumter County Adult Center, Brewster Technical Center, South Dade Educational Center, and Gadsden Technical Institute. In contrast, fewer than 10% of graduates and completers from two DTCs received public assistance: George T. Baker Aviation and Monroe County Adult and Community Education.

Table 8: Completers With Career Certificates Who Received Public Assistance, by District Technical Center

District Technical Center	Number of Completers	Number Who Received Public Assistance	Percent Public Assistance
Gadsden Technical Institute	116	54	47%
South Dade Educational Center	699	299	43%
Brewster Technical Center	1,008	417	41%
Sumter County Adult Center	129	52	40%
Suwannee-Hamilton Technical Center	420	149	35%
Immokalee Technical Center	427	145	34%
Lindsey Hopkins Technical Education Center	1,952	623	32%
Wakulla County Adult and Community Education	142	45	32%
DeSoto County Adult Education Center	244	75	31%
D.A. Dorsey Educational Center	145	44	30%
Lively Technical Center	1,546	437	28%
Aparicio-Levy Technical Center	349	96	28%
Taylor Technical Institute	613	162	26%
Learey Technical Center	2,440	638	26%
Indian River Adult and Community Education School	1,327	337	25%
Bradford-Union Area Career Technical Center	386	97	25%
Marchman Technical Education Center	377	93	25%
The English Center	566	137	24%
Traviss Career Center	1,450	344	24%
Washington-Holmes Technical Center	1,574	372	24%
George Stone Technical Center	1,609	355	22%
Pinellas Technical Education Center–St. Petersburg	2,795	608	22%
Westside Tech	999	212	21%
Erwin Technical Center	2,599	551	21%
Ridge Career Center	2,048	430	21%
Withlacoochee Technical Institute	1,461	303	21%
Walton Career Development Center	253	50	20%
Cape Coral Institute of Technology	831	163	20%
Miami Lakes Educational Center	2,574	491	19%
Marion County Community Technical and Adult Education Center	2,649	498	19%
Tom P. Haney Technical Center	951	177	19%
Flagler Technical Institute	1,155	214	19%
Manatee Technical Institute	2,843	526	19%

District Technical Center	Number of Completers	Number Who Received Public Assistance	Percent Public Assistance
First Coast Technical College	2,888	534	18%
Locklin Tech	289	53	18%
Sheridan Technical Center	4,658	839	18%
Robert Morgan Educational Center	1,972	344	17%
Charlotte Technical Center	1,258	216	17%
Orlando Tech	1,799	288	16%
Pinellas Technical Education Center– Clearwater	1,866	289	15%
Lorenzo Walker Institute of Technology	1,752	270	15%
Technical Education Center of Osceola	1,672	253	15%
Atlantic Technical Center	2,813	416	15%
Fort Myers Institute of Technology	3,246	474	15%
Winter Park Tech	1,308	190	15%
Okaloosa Applied Technology Center	411	59	14%
Lake Technical Center	2,570	358	14%
McFatter Technical Center	3,879	478	12%
Mid-Florida Tech	3,734	420	11%
Sarasota County Technical Institute	2,029	202	10%
George T. Baker Aviation	490	38	8%
Monroe County Adult and Community Education	49	—*	—*

*Fewer than 10 students received public assistance.

The percentage of graduates and completers of career certificates who received public assistance varied widely across Florida's colleges (Table 9). Twenty-one percent of graduates and completers from North Florida Community College received public assistance. Additionally, more than 10% of graduates and completers from nine other colleges received public assistance. In contrast, less than 3% of graduates and completers from two colleges (Florida SouthWestern State College and Florida Keys Community College) received public assistance.

Table 9: Completers With Career Certificates Who Received Public Assistance, by College

College	Number of Completers	Number Who Received Public Assistance	Percent Public Assistance
North Florida Community College	527	112	21%
Pensacola State College	1,438	259	18%
Florida Gateway College	1,048	162	15%
College of Central Florida	1,693	237	14%
Daytona State College	3,446	478	14%
South Florida State College	1,300	180	14%
Pasco-Hernando State College	1,992	270	14%
Indian River State College	3,751	440	12%
Chipola College	855	96	11%
Florida State College at Jacksonville	7,703	852	11%
Eastern Florida State College	2,725	273	10%
Seminole State College of Florida	1,887	187	10%
St. Johns River State College	800	79	10%
Santa Fe College	1,252	122	10%
Miami Dade College	3,939	350	9%
Palm Beach State College	4,631	407	9%
Gulf Coast State College	1,144	99	9%
Hillsborough Community College	2,469	196	8%
Northwest Florida State College	662	51	8%
Tallahassee Community College	1,632	93	6%
Polk State College	586	26	4%
Valencia College	1,324	45	3%
Broward College	1,382	43	3%
St. Petersburg College	730	19	3%
Florida SouthWestern State College	134	—*	—*
Florida Keys Community College	195	—*	—*

*Fewer than 10 students received public assistance.

Completers With College Credit Certificates Who Received Public Assistance

The percentage of graduates and completers of college credit certificates who received public assistance varied considerably. As shown in Table 10, more than 10% of graduates and completers from eight colleges received public assistance: Pasco-Hernando State College, Florida Gateway College, Indian River State College, Pensacola State College, Polk State College, Gulf Coast State College, Daytona State College, and St. Johns River State College. In contrast, less than 5% of graduates and completers from six colleges received public assistance: North Florida Community College; State College of Florida, Manatee-Sarasota; Lake-Sumter State College; Florida Keys Community College; Chipola College; and Broward College.

Table 10: Completers With College Credit Certificates Who Received Public Assistance, by College

College	Number of Completers	Number Who Received Public Assistance	Percent Public Assistance
St. Johns River State College	214	36	17%
Daytona State College	1,459	200	14%
Gulf Coast State College	241	31	13%
Polk State College	364	46	13%
Pensacola State College	622	75	12%
Indian River State College	1,324	155	12%
Florida Gateway College	224	26	12%
Pasco-Hernando State College	464	49	11%
Tallahassee Community College	177	18	10%
Seminole State College of Florida	2,597	258	10%
South Florida State College	131	13	10%
Eastern Florida State College	1,553	151	10%
College of Central Florida	844	75	9%
Florida State College at Jacksonville	2,236	197	9%
Valencia College	7,873	666	8%
Northwest Florida State College	723	61	8%
Miami Dade College	3,810	307	8%
Palm Beach State College	1,919	146	8%
Hillsborough Community College	2,416	163	7%
Florida SouthWestern State College	1,366	87	6%
St. Petersburg College	1,555	93	6%
Santa Fe College	979	57	6%
Broward College	1,691	76	4%
Chipola College	57	—*	—*
Florida Keys Community College	52	—*	—*
Lake-Sumter State College	139	—*	—*
State College of Florida, Manatee-Sarasota	10	—*	—*
North Florida Community College	118	—*	—*

*Fewer than 10 students received public assistance.

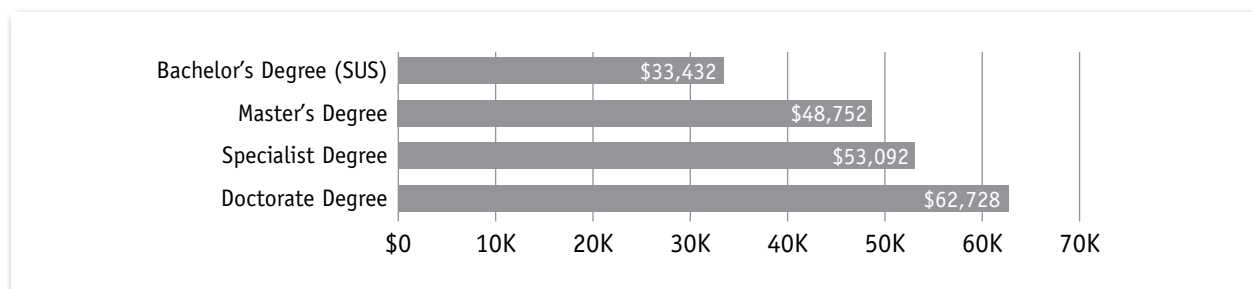
Degrees and First-Year Earnings Among Graduates From Universities

Figure 16 displays median first-year earnings of graduates with academic degrees (bachelor's, master's, specialist, and doctorate), and Figure 17 shows median first-year earnings of graduates with professional degrees⁹ awarded by Florida's universities. The three most common professional degrees were awarded in the fields of law, medicine, and pharmacy.

Figure 16 shows that earnings increase with every level of academic degree attained. For example, approximately \$14,000 separated the median first-year earnings of graduates with doctorate degrees from those with master's degrees, and around \$15,000 separated the median first-year earnings of graduates with master's degrees from those with bachelor's degrees.

In addition to these well-known academic degrees, Florida offers several specialist degree programs that are designed for individuals who want to develop advanced knowledge and skills beyond the master's degree but who do not want to pursue a doctorate degree. Just as the specialist degree fits between a master's and doctorate degrees, so did first-year earnings of graduates with specialist degrees. Median first-year earnings of graduates with specialist degrees fell far closer to the earnings of master's graduates than they did to those of graduates with doctorate degrees. More information about the earnings associated with these degrees is presented later in this report.

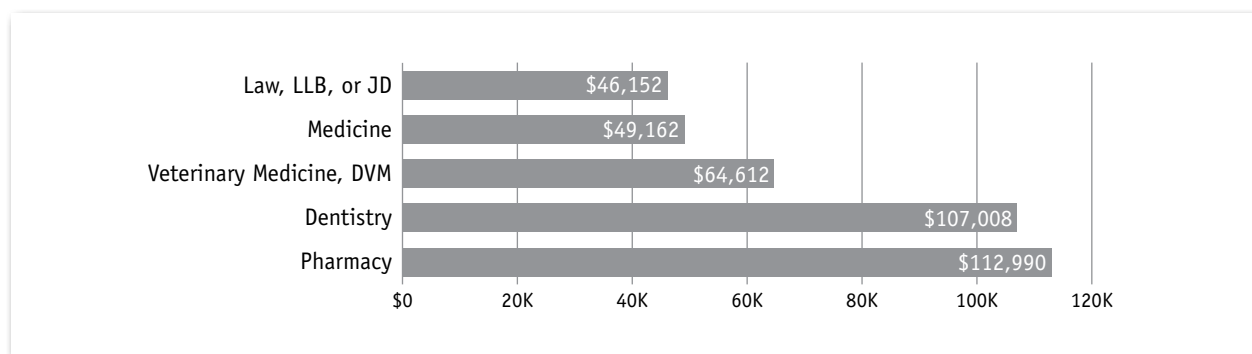
Figure 16: Median First-Year Earnings of Graduates With Academic Degrees From Universities, by Degree



⁹ These are postbaccalaureate programs of study that are designed to provide the training necessary for graduates to enter into a profession.

Figure 17 shows the median first-year earnings of graduates with professional degrees. Law school graduates, after passing the bar exam, are fully licensed to practice law. At slightly more than \$46,000, median first-year earnings of these graduates are about \$2,500 less than the median first-year earnings of all graduates with master's degrees in the state. The first-year earnings of graduates with medical degrees are higher, about \$49,000. However, medical school graduates are not fully licensed as physicians until they complete their internship requirements. Because of these factors, graduates of other professional programs tend to earn far more than medical school graduates during their early years of employment.

Figure 17: Median First-Year Earnings of Graduates With Professional Degrees From Universities, by Degree



First-Year Earnings of Graduates With Bachelor's Degrees

The bachelor's degree is the most common degree awarded in the United States. Historically, a bachelor's degree has been a good investment. According to data from the U.S. Department of Labor, Bureau of Labor Statistics, graduates with bachelor's degrees nationwide earn on average about 65% per year more than high school graduates, and graduates with bachelor's degrees are far less likely to be unemployed.¹⁰

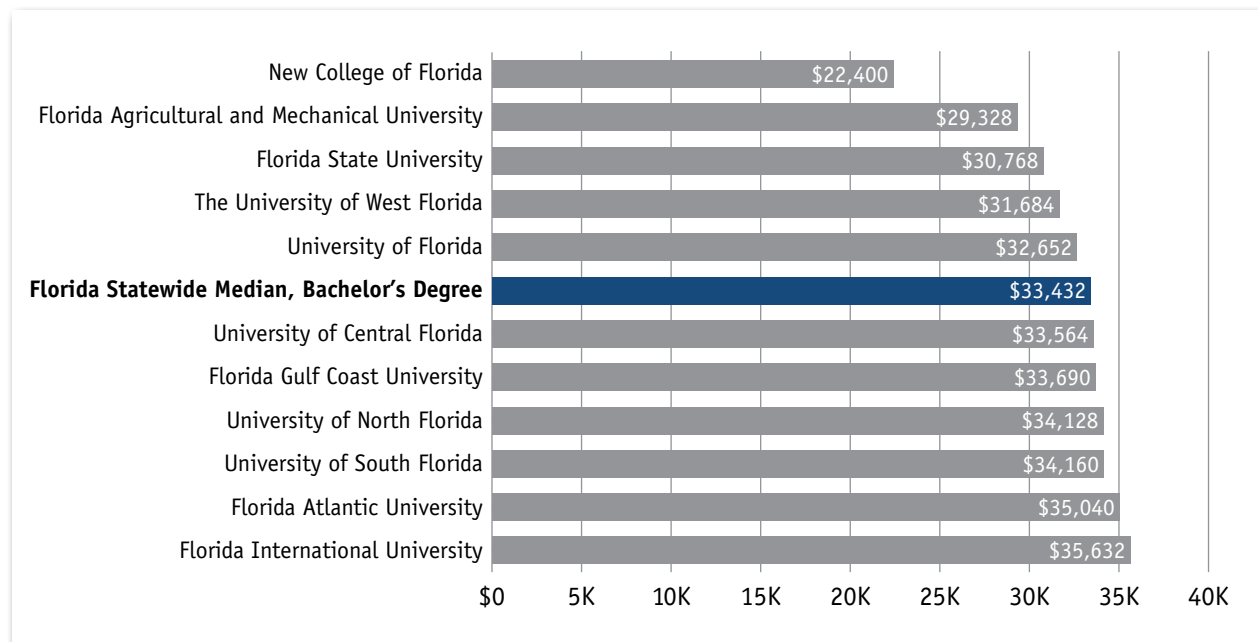
However, these national data mask differences in the labor market outcomes of graduates with bachelor's degrees. As is evident in the figures in this section, the return on investment among graduates from universities varies widely by institution and major. In short, graduates do not earn just a bachelor's degree; they earn a degree from a specific college or university and in a specific program. These choices have consequences as graduates enter the labor market. The data in this report and on the College Measures website enable readers to delve deeper into this variation.

¹⁰ http://www.bls.gov/emp/ep_chart_001.htm

Variations by University

Figure 18 shows the median first-year earnings of graduates by university.¹¹ Median first-year earnings of graduates from universities varied substantially, ranging from \$22,400 (New College of Florida) to more than \$35,000 (Florida International University). Of note, universities serve different economic areas of the state, and Florida International University is located in one of the highest earnings areas of Florida.

Figure 18: Median First-Year Earnings of Graduates With Bachelor's Degrees, by University



After New College of Florida, the next four universities with graduates having the lowest median first-year earnings included the state's two flagship institutions: Florida State University and the University of Florida. One possible reason for the lower median first-year earnings of graduates of these universities is that more of their graduates are likely pursuing further studies and/or are employed in states where WRIS2 employment and earnings data are not available. Statewide, 63%

¹¹ Data for Florida Polytechnic University are not included in this report, because the university was established by law in 2012. 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.

of graduates with bachelor's degrees were matched with wage data.¹² The match rate, however, was only 56% for graduates of Florida State University and even lower, 48%, for graduates of University of Florida. Moreover, more than 10,700 graduates of the University of Florida and more than 6,900 graduates of Florida State University had been identified as pursuing further studies. These data suggest that the flagship universities in the state's system of higher education play a broader role than regional campuses whose graduates are more likely to enter the state's labor market directly after graduation.

Of note, the median first-year earnings of graduates from four schools (University of Central Florida, Florida Gulf Coast University, University of North Florida, and the University of South Florida) were within \$750 of each other, suggesting that employers value at roughly the same level many university pathways into the labor market.

Variations by Fields of Study

Figure 19 displays the median first-year earnings of graduates from the most popular fields of study in Florida. The range in median first-year earnings between the highest and lowest paid fields was far greater than the range between median first-year earnings by university. Graduates with degrees in Biology had the lowest first-year earnings, around \$8,000 less than the statewide median.¹³ Graduates with degrees in Psychology and English Language and Literature also fell at the bottom of the earnings distribution, followed by Criminal Justice.

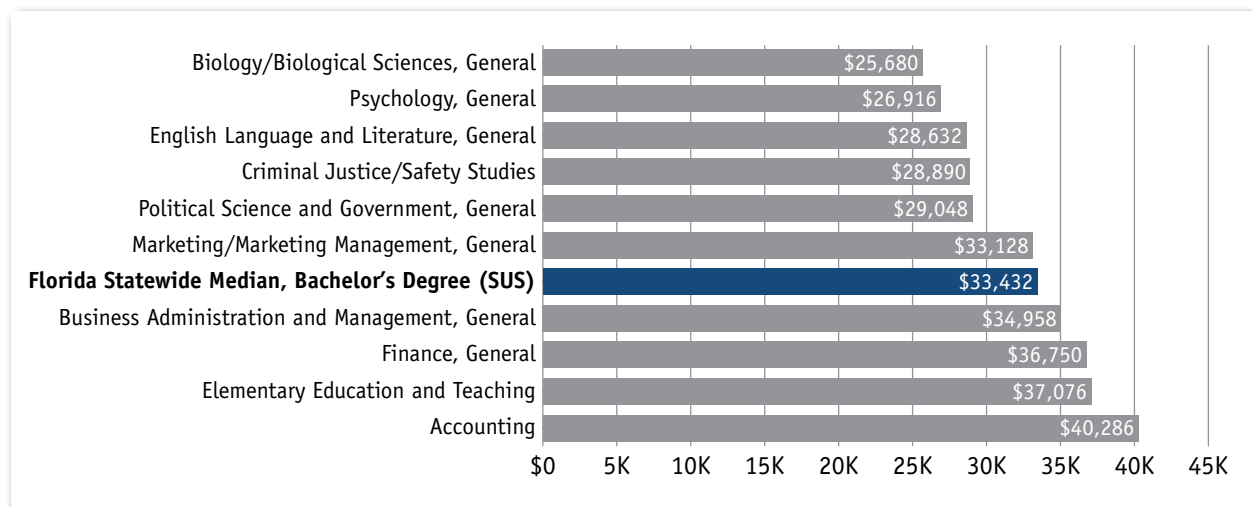
Graduates who majored in business-related fields (Business Administration and Management, Finance, and Accounting) were among the highest first-year earners. Accounting graduates were the highest paid among these popular programs. However, graduates with degrees in marketing, another business-related field, had first-year earnings below the statewide median.

Graduates with degrees in Elementary Education and Teaching had average first-year earnings that were \$4,000 higher than the statewide median, which places them among the highest paid graduates in the state.

12 This report uses wage data from the Wage Record Interchange System2 (WRIS2). The data includes employment and earnings records from 35 other states. The WRIS2 website includes a map of participating states: http://www.doleta.gov/performance/pfdocs/WRIS2_Map_May_2014.pdf. WRIS2 wage data are not yet available for Georgia and Alabama, states which border Florida. Additionally, some students are not yet seeking employment as they are enrolled in continuing education programs.

13 Graduates with degrees in Biology had low median first-year earnings, but they often experienced high rates of growth in earnings. Several years after graduation, the average earnings of graduates with degrees in Biology are often higher than the earnings of graduates in other fields who may have earned more immediately after graduation.

Figure 19: Median First-Year Earnings of Graduates From Popular Bachelor's Degree Programs, by Program



Variations Across Fields of Study in Different Universities

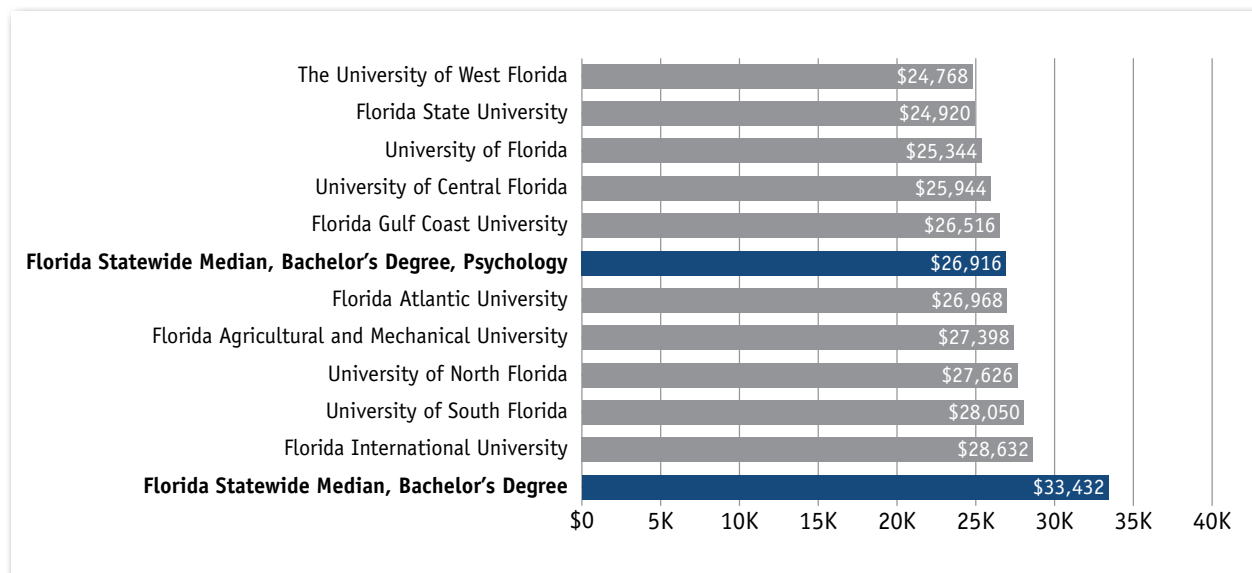
The first-year earnings across the same field by different institutions varied substantially. Figures 20–22 show the earnings of graduates from some of the most popular undergraduate programs in the state: Psychology, Business, and Biology and Mathematics, which are two important areas of study in the fields of Science, Technology, Engineering, and Mathematics (STEM).

These figures display the median first-year earnings for each area of study and the statewide median first-year earnings for all bachelor's degrees. This allows a comparison of the relative performance of each area of study and offers a sense of how well graduates from that area of study fare in the labor market relative to all graduates with bachelor's degrees from state universities. Again, differences in the size and strength of regional economies across the state affect some of the patterns.

Psychology was the most popular major on many campuses. The median first-year earnings of graduates with bachelor's degrees in Psychology were lower than the statewide median for all recipients of bachelor's degrees (Figure 20). Around \$4,000 separated the lowest median first-year earnings of graduates with bachelor's degrees in Psychology (University of West Florida) from the highest median first-year earnings (Florida International University).¹⁴

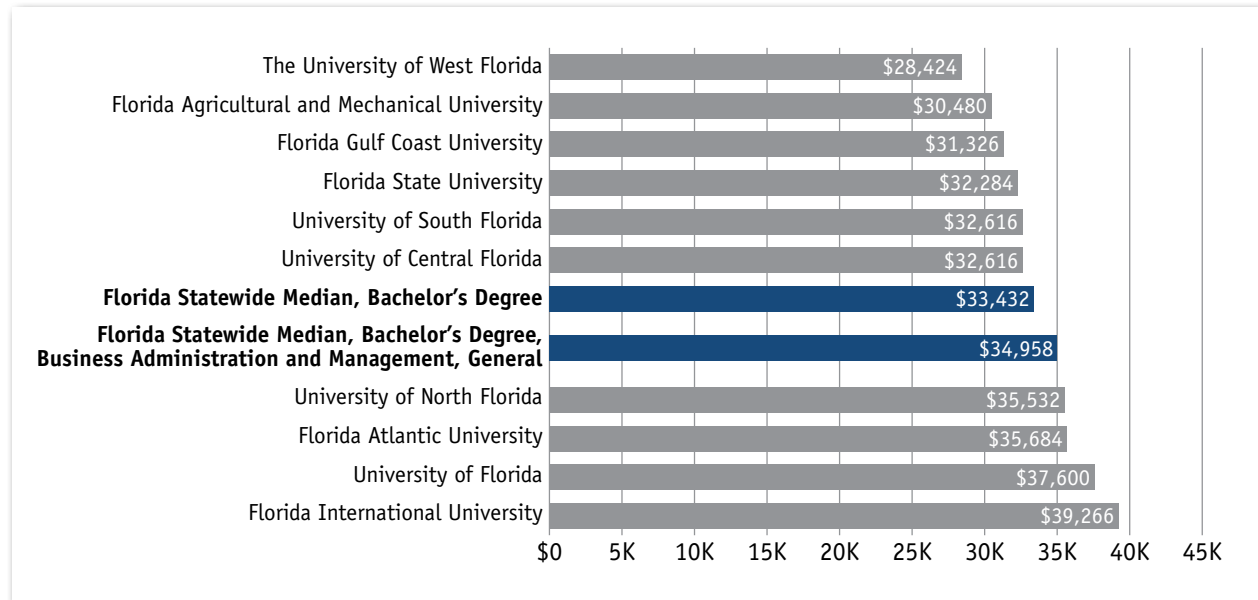
¹⁴ When considering the wage data from the state's flagship universities, remember that many more of their graduates are likely pursuing additional advanced training or have sought work out of state in an area not covered by WRIS2. For example, the match rate of graduates with bachelor's degrees in Psychology from Florida State University was only 55%, which was lower than the match rate of other programs. The match rate for the University of Florida was even lower (45%). The statewide match rate for graduates with bachelor's degrees in Psychology was 63%.

Figure 20: Median First-Year Earnings of Graduates with Bachelor's Degrees in Psychology, by University



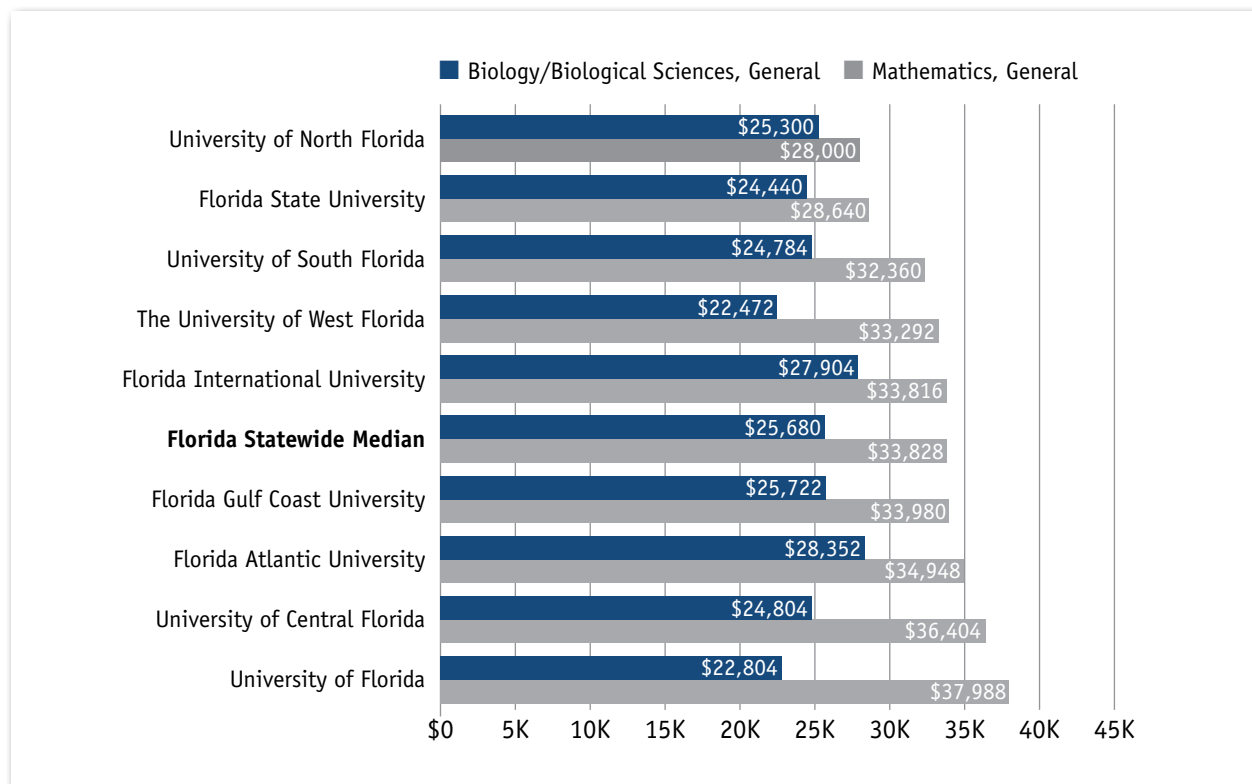
Graduates with degrees in Business Administration and Management, General tended to earn more than the relatively low first-year earnings of graduates with degrees in Psychology. In fact, the median first-year earnings of graduates of business-related programs statewide were higher (by approximately \$1,500) than the statewide median for all bachelor's degrees (Figure 21). That said, median first-year earnings of graduates with the same degree varied by university, as almost \$11,000 separated the median first-year earnings of graduates from the University of West Florida with those from Florida International University. The earnings range for graduates with bachelor's degrees in Business was far greater than that of graduates with degrees in Psychology.

Figure 21: Median First-Year Earnings of Graduates With Bachelor's Degrees in Business Administration and Management, General, by University



Like most states, Florida is interested in increasing the number of graduates with degrees in the STEM fields. However, as is evident in Figure 22, the median first-year earnings of graduates with bachelor's degrees in Mathematics outpaced those of graduates with bachelor's degrees in Biology.

Figure 22: Median First-Year Earnings of Graduates With Bachelor's Degrees in Biology or Mathematics, by University



Of note, graduates with degrees in Biology/Biological Sciences, General from Florida Atlantic University—the most successful program based on earnings in the labor market—had median first-year earnings below the statewide median for all graduates with bachelor's degrees (about \$28,000 compared with \$33,000). By comparison, the median first-year earnings of graduates with Mathematics, General degrees from Florida Atlantic University were just about the same as the statewide median first-year earnings for all graduates with bachelor's degrees.

Interestingly, the median first-year earnings of graduates with degrees in Biology/Biological Sciences, General were lower than those of graduates with degrees in Mathematics, General from the same university. In the case of the University of North Florida, the difference is small, but the difference is more than \$10,000 for graduates from several other universities. Based on median first-year earnings, the labor market clearly rewards recent graduates with degrees in Mathematics more so than most graduates with other degrees, including Biology.

Remember, these patterns reflect earnings of graduates in their first year after graduation. Patterns may change over time. Data for longer term outcomes is available at the Economic Success Metrics website: <http://www.beyondeducation.org>.

Enrollment Patterns in Continuing Education of Students With Bachelor's Degrees

As is the case nationwide, the bachelor's degree is the highest degree that most students in Florida's universities will attain. Statewide, about 20% of graduates with bachelor's degrees continue their education 1 year after graduation.¹⁵ Table 11 shows the percentage of graduates with bachelor's degrees from each of Florida's universities that meet this criterion. The rate of continuing enrollment was within two percentage points of the state median for 8 of the 11 universities. Only three universities fell outside this tight cluster. At the high end, about 25% 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 nine percentage points below the state median—only 10% of its graduates were enrolled in continuing education. Similarly, only 14% of graduates from University of North Florida were enrolled in continuing education.

Table 11: Percentage of Students With Bachelor's Degrees Who Were Enrolled in Continuing Education, by University

University	Percent Enrolled in Continuing Education
New College of Florida	10%
University of North Florida	14%
Florida Atlantic University	17%
University of Central Florida	18%
University of West Florida	18%
University of South Florida	19%
Florida State University	19%
Florida Statewide Median	19%
Florida Gulf Coast University	20%
Florida International University	20%
Florida Agricultural and Mechanical University	21%
University of Florida	25%

Table 12 shows the percentage of students continuing their education among the most popular fields of study.¹⁶ Despite the tight clustering of universities around enrollment in continuing education, substantial variation exists across fields. For example, among all of the fields listed in Table 12, graduates with bachelor's degrees in Business Administration and Management, General and Finance were least likely to be enrolled in continuing education. But note that

¹⁵ This can be full time or part time. Data only show whether students were enrolled, not whether they completed an advanced degree or certificate.

¹⁶ Each program had more than 1,000 students in continuing education.

graduates with bachelor's degrees in Accounting, another popular business-related program, had high rates of enrollment in continuing education: Almost one third of graduates with degrees in Accounting were enrolled in continuing education. Graduates with bachelor's degrees in Social Work were also more likely than graduates from most other programs to be continuing their education. And 43% of graduates with a bachelor's degree in Health Services/Allied Health/Health Sciences were doing so—the highest percentage from these popular fields of study.

Table 12: Percentage of Students With Bachelor's Degrees Who Were Enrolled in Continuing Education, by Popular Area of Study

Area of Study	Percent Enrolled in Continuing Education
Business Administration and Management, General	11%
Finance, General	14%
Elementary Education and Teaching	14%
English Language and Literature, General	18%
Political Science and Government, General	20%
Criminal Justice/Safety Studies	22%
History, General	23%
Psychology, General	24%
Biology/Biological Sciences, General	29%
Accounting	31%
Social Work	40%
Health Services/Allied Health/Health Sciences, General	43%

Debt Levels Among Students in Florida's Universities

Student debt is a growing concern nationwide. Totaling about \$1 trillion, student debt now surpasses outstanding credit card debt and automobile loans and is second only to home mortgages.¹⁷ Many students are defaulting 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.

Similar to the debt levels reported previously for Florida's colleges, data on debt are reported by each public university. The data reflect the average federal student loan debt of all students (not just graduates) attending universities during 2011–12. Data also include 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 2011–12 at each university, divided by

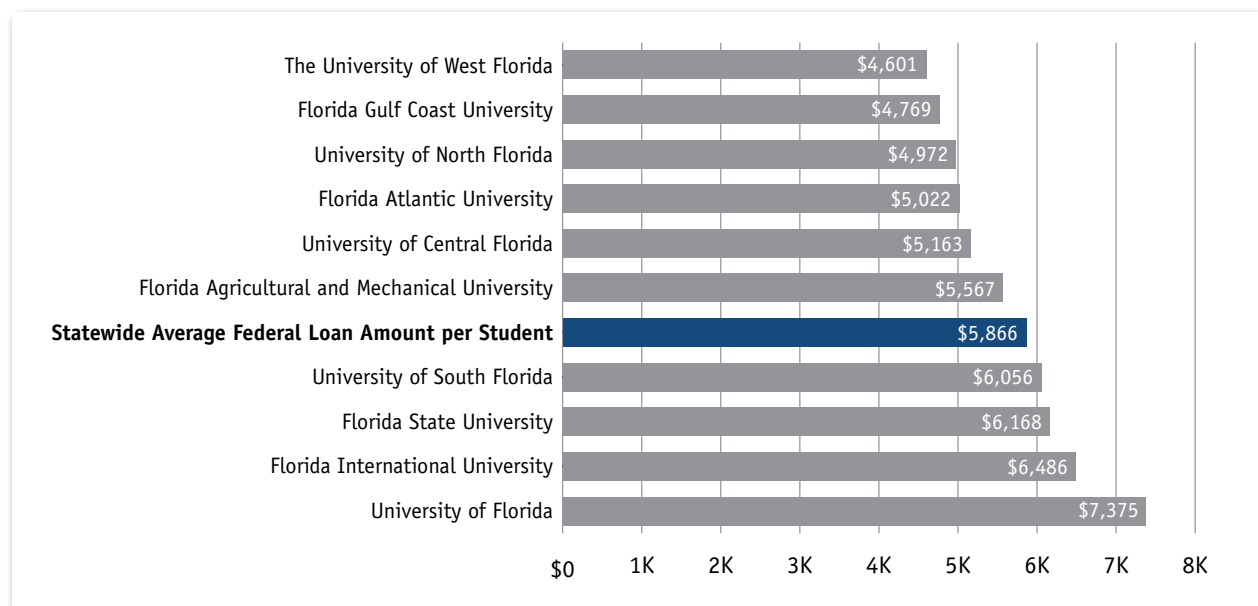
¹⁷ The Federal Reserve Bank of New York issues periodic reports on the level of student debt. For example, see, http://www.newyorkfed.org/research/staff_reports/sr668.pdf.

the number of students attending the university that academic year. It does not include private loans or other debt issued by nonfederal government sources that students may have sought to help finance their education.

As shown in Figure 23, the average statewide federal loan amount per student was slightly more than \$5,500. The range varied, however, from around \$4,600 (University of West Florida) to more than \$7,000 (University of Florida). Because this disbursement amount includes both graduate and undergraduate students, there may be some upward pressure on the amount reported in research universities, such as Florida State University and the University of Florida.

These data are from 2011–12 and may reflect the economic pressures that students were under given the difficult economic conditions of the nation and the state at that time.

Figure 23: Average Federal Loan Amount per Student, by University, 2011–12



Bachelor's Degrees Earned at Florida State Colleges

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's degrees that are core to the mission of 2-year colleges.

During the 5-year study period, colleges in the State of Florida awarded almost 10,000 bachelor's degrees. These degrees were concentrated in a small number of areas of study (Table 13).

Table 13: Bachelor's Degrees Awarded by Colleges in Florida, by Area of Study

Area of Study	Number of Bachelor's Degrees	Percent of Bachelor's Degrees
Public Administration and Social Service Professions	13	0.1%
Engineering Technologies and Engineering-Related Fields	19	0.2%
Visual and Performing Arts	29	0.3%
Natural Resources and Conservation	33	0.3%
Legal Professions and Studies	117	1.2%
Computer and Information Sciences and Support Services	489	4.9%
Homeland Security, Law Enforcement, Firefighting and Related Protective Services	872	8.8%
Education	2,326	23.4%
Health Professions and Related Programs	2,472	24.9%
Business, Management, Marketing, and Related Support Services	3,569	35.9%
Total	9,964	100.0%

The areas of study listed in Table 14 are relatively high paying. Not surprising then, the median first-year earnings of graduates with bachelor's degrees from these colleges (around \$41,000) were higher than those of graduates with bachelor's degrees from Florida's universities (slightly more than \$33,400), which offer bachelor's degrees in more areas of study.

Table 14 shows the median first-year earnings of graduates with bachelor's degrees awarded by Florida's colleges by program. Outcomes varied across areas of study. The programs with the highest number of completers were Registered Nursing (nearly 1,700 graduates) and Business Administration, Management and Operations, Other (more than 2,800 completers). The median first-year earnings for graduates with bachelor's degrees in Registered Nursing were \$64,111, which exceeded the statewide median for bachelor's degrees from colleges by approximately \$13,000. The median first-year earnings for graduates with bachelor's degrees in Business Administration, Management and Operations, Other were \$35,724, which fell below the statewide median for bachelor's degrees from colleges by approximately \$4,000.

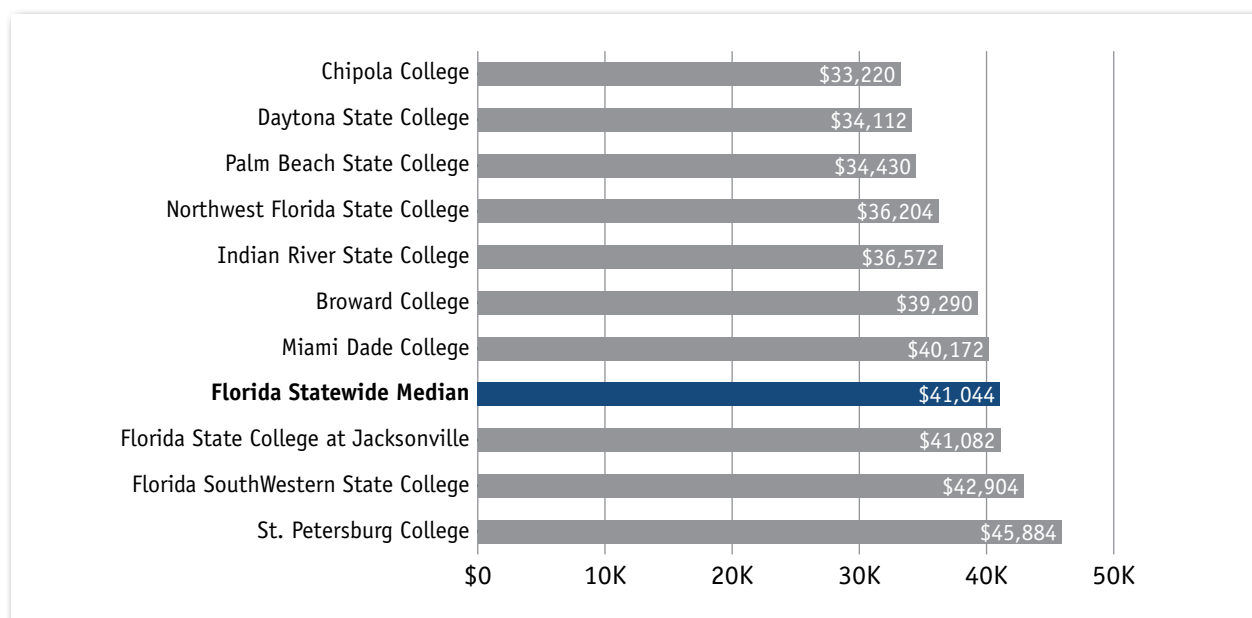
Table 14: Median First-Year Earnings of Completers With Bachelor's Degrees Awarded by Florida State Colleges, by Area of Study

Area of Study	Number of Completers	Median First-Year Earnings
Fire Services Administration	17	\$65,122
Registered Nursing/Registered Nurse*	1,698	\$61,700
Computer/Information Technology Services Administration and Management, Other	411	\$53,060
Dental Hygiene/Hygienist	289	\$50,182
Computer Systems Networking and Telecommunications	63	\$49,408
Technology Teacher Education/Industrial Arts Teacher Education	16	\$43,308
Florida Statewide Median, Bachelor's Degrees, FCS	9,964	\$41,044
Homeland Security, Law Enforcement, Firefighting and Related Protective Services, Other	855	\$39,950
Business Administration and Management, General	66	\$39,122
Biology Teacher Education	63	\$39,012
Special Education and Teaching, General	931	\$38,740
Health Services Administration	173	\$38,256
Mathematics Teacher Education	219	\$38,080
Elementary Education and Teaching	898	\$37,532
International Business/Trade/Commerce	203	\$36,566
Engineering Technologies and Engineering-Related Fields, Other	19	\$36,524
Purchasing, Procurement/Acquisitions and Contracts Management	377	\$36,212
Science Teacher Education/General Science Teacher Education	56	\$35,860
Business Administration, Management and Operations, Other	2,878	\$35,724
Early Childhood Education and Teaching	91	\$34,826
Finance, General	45	\$34,788
Information Technology	15	\$34,044
Health/Health Care Administration/Management	79	\$33,388
Legal Assistant/Paralegal	117	\$33,100
Veterinary/Animal Health Technology/Technician and Veterinary Assistant	128	\$32,868
Orthotist/Prosthetist	105	\$32,304
Natural Resources Management and Policy, Other	33	\$31,888
Interior Design	17	\$29,298
Education, Other	52	\$25,632

*In 2010, the U.S. Department of Education reclassified Nursing/Registered Nurse (CIP code 51.1601) to Registered Nursing/Registered Nurse (CIP code 51.3801). Some institutions granted both degrees during the transition. This represents the weighted average of those two CIP codes.

Figure 24 shows median first-year earnings of graduates with bachelor's degrees by college. Median first-year earnings ranged from less than \$35,000 (Chipola College, Daytona State College, and Palm Beach State College) to more than \$45,000 (St. Petersburg College).¹⁸

Figure 24: Median First-Year Earnings of Graduates With Bachelor's Degrees, by College



First-Year Earnings of Graduates With Master's Degrees

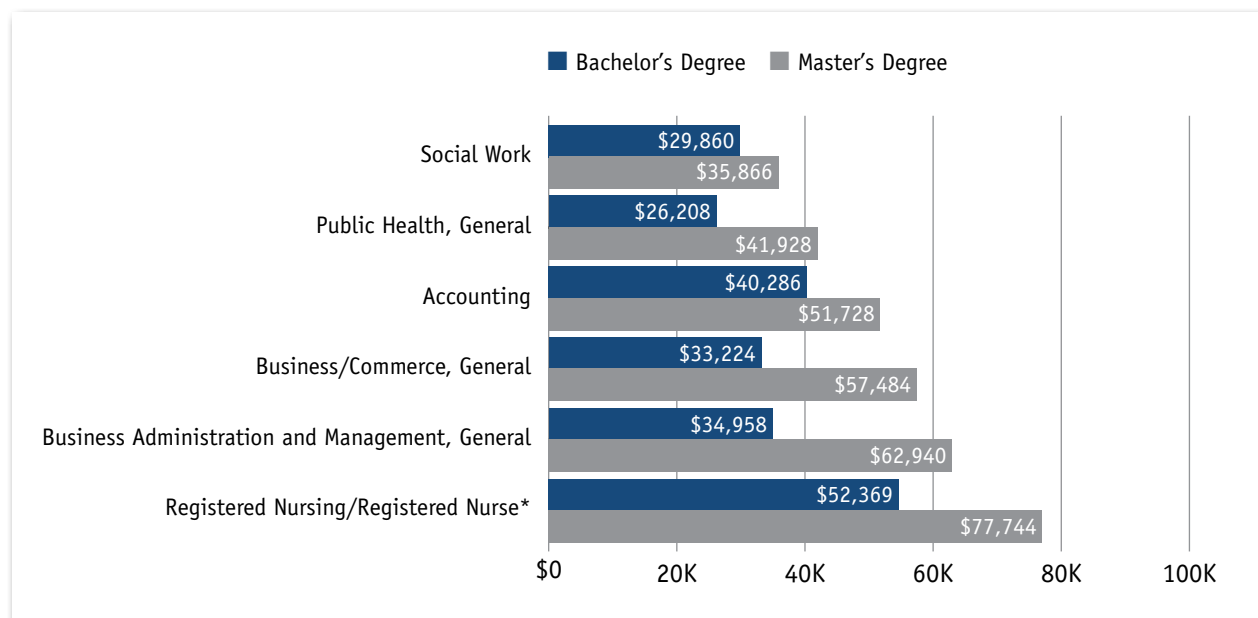
Public education institutions in Florida awarded more than 74,000 master's degrees during the 5-year study. More than 60% of these graduates were found in the matched student record/unemployment insurance wage database and WRIS2 data used in this report.

Graduates with master's degrees were rewarded in the labor market. The median first-year earnings of graduates with master's degrees in Florida were around \$49,000 compared with \$33,432 for graduates with bachelor's degrees from universities. Some of this is attributable to the fact that many graduates with master's degrees are older and already in careers, so their earnings will likely be higher. But 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.

¹⁸ Each college had more than 100 completers.

Like 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. For area of study, the earnings gained for having a master's degree, not just a bachelor's degree, ranged from around \$6,000 (Social Work) to more than \$24,000 (Business Administration and Management, General and Nursing). Clearly, the extent of the benefit of earning a master's degree is associated with area of study (Figure 25).

Figure 25: Median First-Year Earnings of Graduates With Bachelor's or Master's Degrees, by Popular Fields of Study

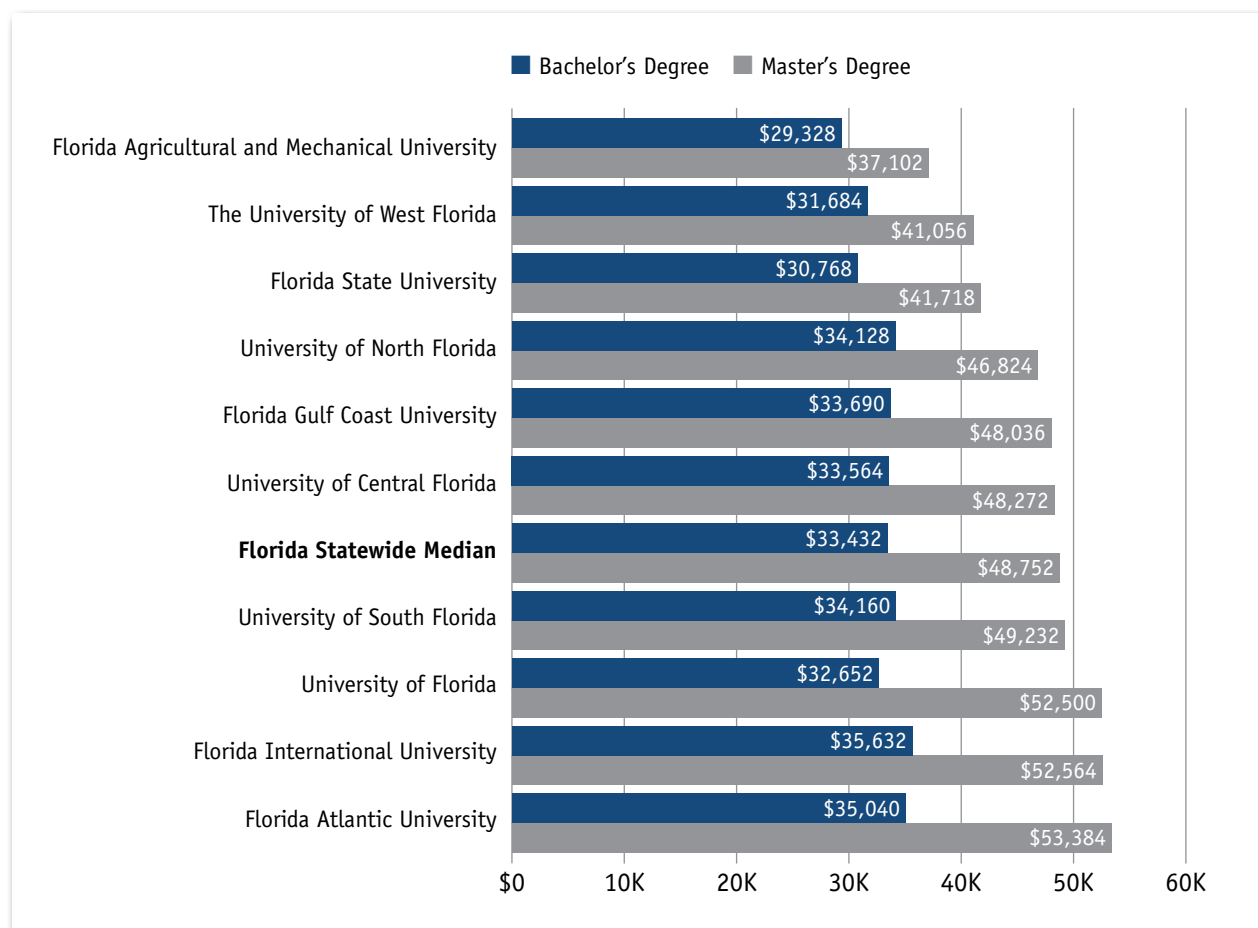


*In 2010, the U.S. Department of Education reclassified Nursing/Registered Nurse (CIP code 51.1601) to Registered Nursing/Registered Nurse (CIP code 51.3801). Some institutions granted both degrees during the transition. This represents the weighted average of those two CIP codes.

Similarly, there are large differences in the median first-year earnings of graduates with master's degrees across institutions. Graduates with master's degrees from Florida A&M University had median first-year earnings of less than \$40,000 and those from the University of West Florida and Florida State University were less than \$42,000. In contrast, graduates with master's degrees from three universities (University of Florida, Florida International, and Florida Atlantic) had median first-year earnings of more than \$50,000.

Figure 26 compares the earnings premiums between master's and bachelor's degrees for each university across Florida that met reporting requirements. Differences ranged from around \$7,000 (Florida A&M University) to around \$20,000 (University of Florida). These within-university differences, to some degree, take into account the 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: universities that graduate more students in higher paying areas in the labor market, such as Business or Nursing, will have an advantage over universities that graduate more students in lower paying areas, such as Social Work.

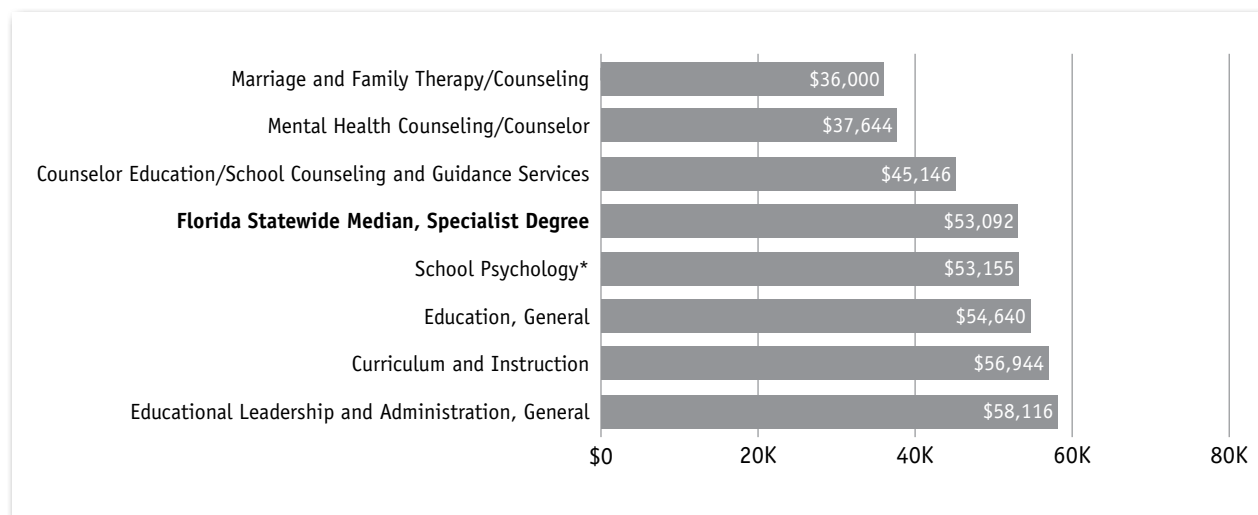
Figure 26: Median First-Year Earnings of Graduates With Bachelor's or Master's Degrees, by University



Specialist Degrees

During the 5-year study, Florida's universities awarded more than 1,300 specialist degrees. As noted previously, the specialist degree is an advanced degree designed for people who want to develop skills beyond the master's level but who are not interested in pursuing a doctorate degree. Most specialist degrees awarded were concentrated in education-based professions: School Psychology (110 specialist degrees), Counselor Education/School Counseling and Guidance Services (263), Curriculum and Instruction (304), and Educational Leadership and Administration (373). Figure 27 displays the median first-year earnings of graduates with specialist degrees for all programs in Florida. Median first-year earnings varied widely, as more than \$20,000 separated the lowest median first-year earnings (Marriage and Family Therapy/Counseling, and Mental Health Counseling/Counselor) from the highest median first-year earnings (Education Leadership and Administration, General). Clearly, choosing the right specialty for this type of degree can have a significant impact on earnings.

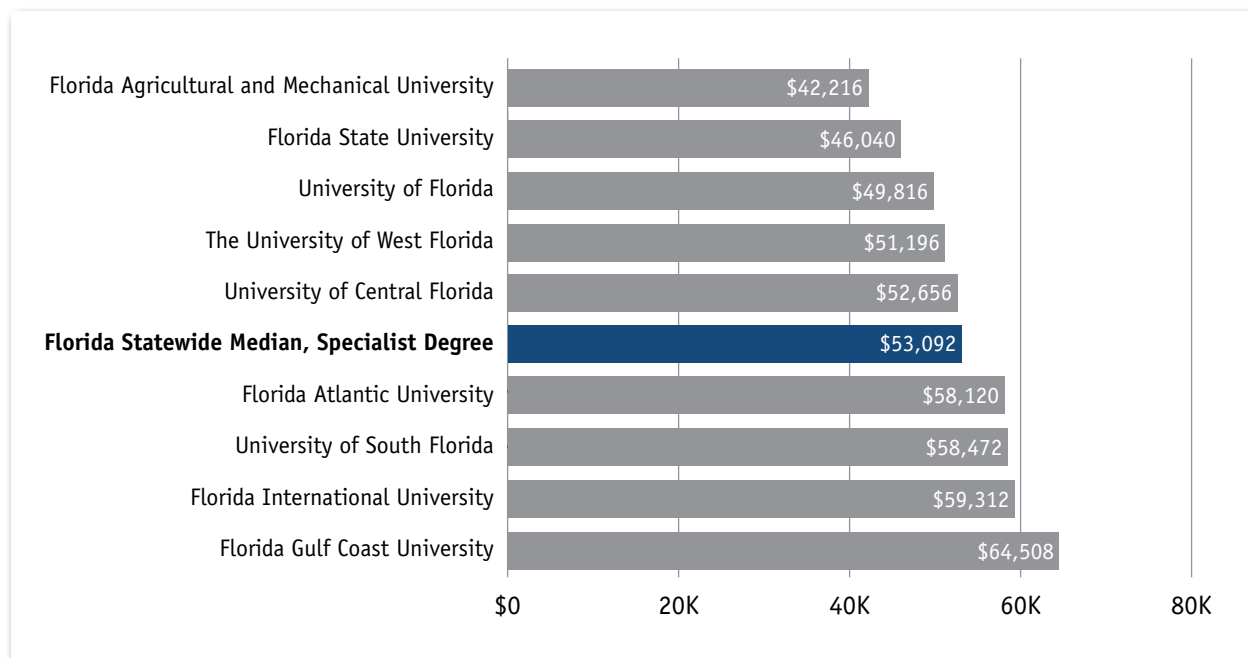
Figure 27: Median First-Year Earnings of Graduates With Specialist Degrees, by Program



*In 2010, CIP code 42.1701 (School Psychology) was replaced with 42.2805. This is the weighted average of these two CIP codes.

Figure 28 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, Florida A&M University, and University of Florida) to more than \$60,000 (Florida Gulf Coast University). Graduates tended to experience greater earnings if they attended universities in and were employed near metropolitan regions.

Figure 28: Median First-Year Earnings of Graduates With Specialist Degrees, by University



As noted previously, one of the main values of the data used in this report is that they are built around the earnings of graduates from specific programs offered by specific universities. This allows a more detailed analysis than the area of study or the institutional-level analysis presented in Figures 27 and 28.

Figures 29 and 30 report data on the earnings of graduates at all three levels of postbaccalaureate degrees (master's, specialist, and doctorate) for two popular specialties: Educational Leadership and Administration (more than 2,400 master's, 373 specialist, and 366 doctorate degrees) and Curriculum and Instruction (1,500 master's, 304 specialist, and 434 doctorate degrees).

Only four universities (University of South Florida, University of Florida, University of Central Florida, and Florida Atlantic University) awarded all three degrees in both Classification of Instructional Programs (CIP) codes, and only two of them (University of South Florida and University of Florida) awarded all three credentials in both specialties. However, even these limited data validate the value of the specialist degree while reinforcing the importance of students carefully choosing a program and institution.

Figure 29 reports the program-level data for the largest specialist degree program in the state, Educational Leadership and Administration. Substantial gains can be had statewide by earning

either the specialist or doctorate credentials after the master's degree. Although graduates with doctorate degrees in Educational Leadership and Administration had higher median first-year earnings than their counterparts with specialist degrees, they also invested more resources in earning that degree. For students who do not want to or cannot invest that extra time and money, the specialist degree may be the most valuable option.

That said, considerable variation existed across programs. For example, graduates with both master's and doctorate degrees from University of Florida had median first-year earnings that lagged behind the state median by almost \$5,000 and \$3,000, respectively. However, the median first-year earnings of graduates with specialist credentials in Educational Leadership and Administration from University of Florida exceeded the statewide median by more than \$2,000. Additionally, the earnings of graduates with master's and specialist credentials from University of Central Florida lagged behind the statewide median in both categories. In contrast, graduates at all three levels from University of South Florida and especially Florida Atlantic University surpassed the respective statewide medians for their credential levels.

Figure 29: Median First-Year Earnings of Graduates With Credentials in Educational Leadership and Administration, by Postbaccalaureate Credential

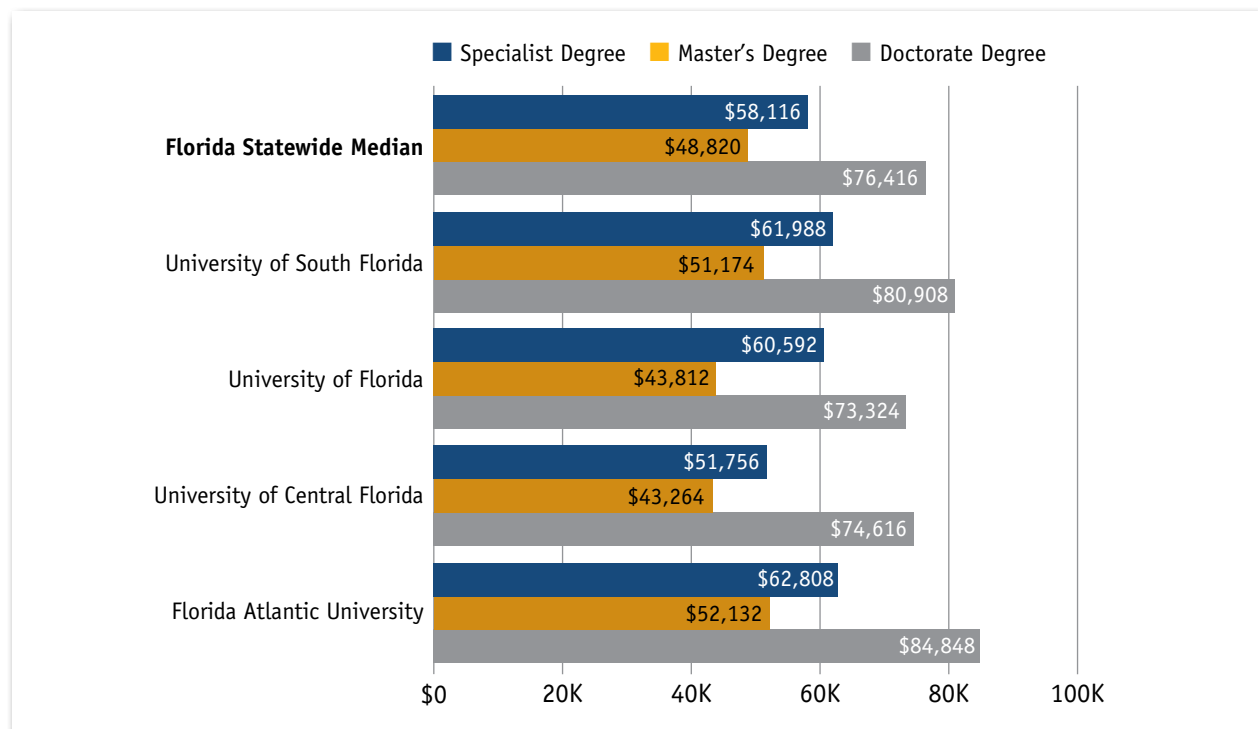
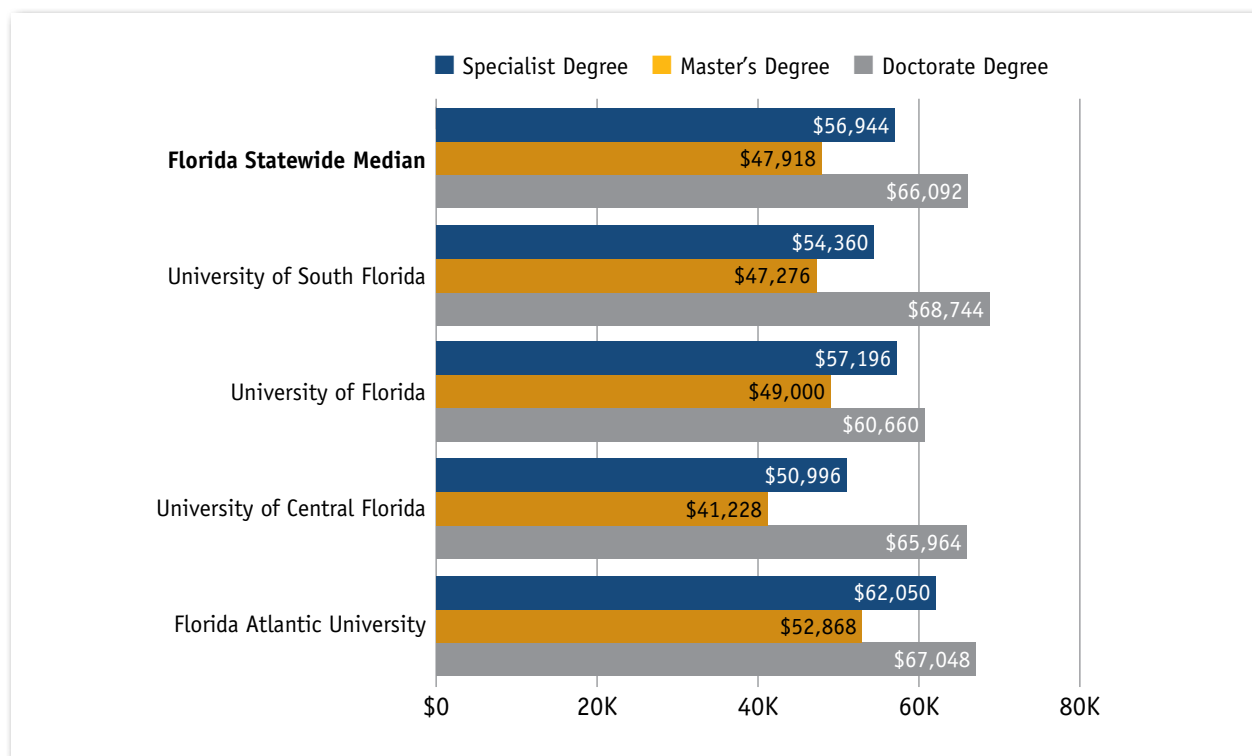


Figure 30 displays the median first-year earnings of graduates at each of the three levels of postbaccalaureate credentials for the field of Curriculum and Instruction. Graduates with doctorate and specialist degrees in this field earned substantially more statewide than graduates with master's degrees. (Note, however, that graduates with degrees in this field are paid less than those with degrees in Educational Leadership and Administration, especially at the doctorate level.) Keeping that in mind, one can see that graduates with specialist and master's degrees in the field of Curriculum and Instruction from University of Florida earned more than the statewide median, but earnings lagged among its doctorate graduates. Also, the first-year earnings of graduates from any of the three degree levels from University of West Florida lagged behind the statewide medians for first-year earnings, especially those with master's degrees. Finally, graduates with specialist degrees from Florida International University had the best outcomes in terms of earnings. Doctorate graduates from University of South Florida had the highest median first-year earnings in the field of Curriculum and Instruction.

Students considering their options for advanced degrees should keep this program variation in mind.

Figure 30: Median First-Year Earnings of Graduates With Credentials in Curriculum and Instruction, by Postbaccalaureate Credential



Professional Degrees

Many students in Florida seek postbaccalaureate degrees that will qualify them for licenses to work in a chosen profession. Table 15 reports the median first-year earnings of graduates of three professional doctorate degrees in Florida: Law, Pharmacy, and Medicine.

Graduates with professional degrees in Medicine made almost the same in the first year after graduation, regardless of the institution from which they graduated;¹⁹ median first-year earnings were less than \$50,000. But as noted previously, this is likely the result of the structure of the profession, whereby the majority of medical school graduates first serve as interns, which is an essential step to gaining a license to practice medicine unsupervised.

Far more variations were found among graduates with professional degrees in Law. Given the time and money spent earning a law degree, the return on investment, at least in the short term, seems to be low. Graduates of Florida A&M University Law School had median first-year earnings of about \$40,000, about \$4,000 less than graduates from Florida State University and about \$5,000 less than graduates from Florida International University. Law graduates from University of Florida do best, with median first-year earnings of more than \$52,000.

Two of Florida's three pharmacy programs met reporting requirements, and although about \$10,000 separated the first-year earnings of graduates from Florida A&M University from graduates of University of Florida, the median first-year earnings of graduates from both programs topped \$100,000—twice the earnings of law graduates. What you study matters!

¹⁹ This is based on data for three medical schools in Florida. Data for graduates of Florida Atlantic University, Florida International University, and the University of Central Florida were not included in the database.

Table 15: Median First-Year Earnings of Graduates With Professional Degrees, by Degree and Institution

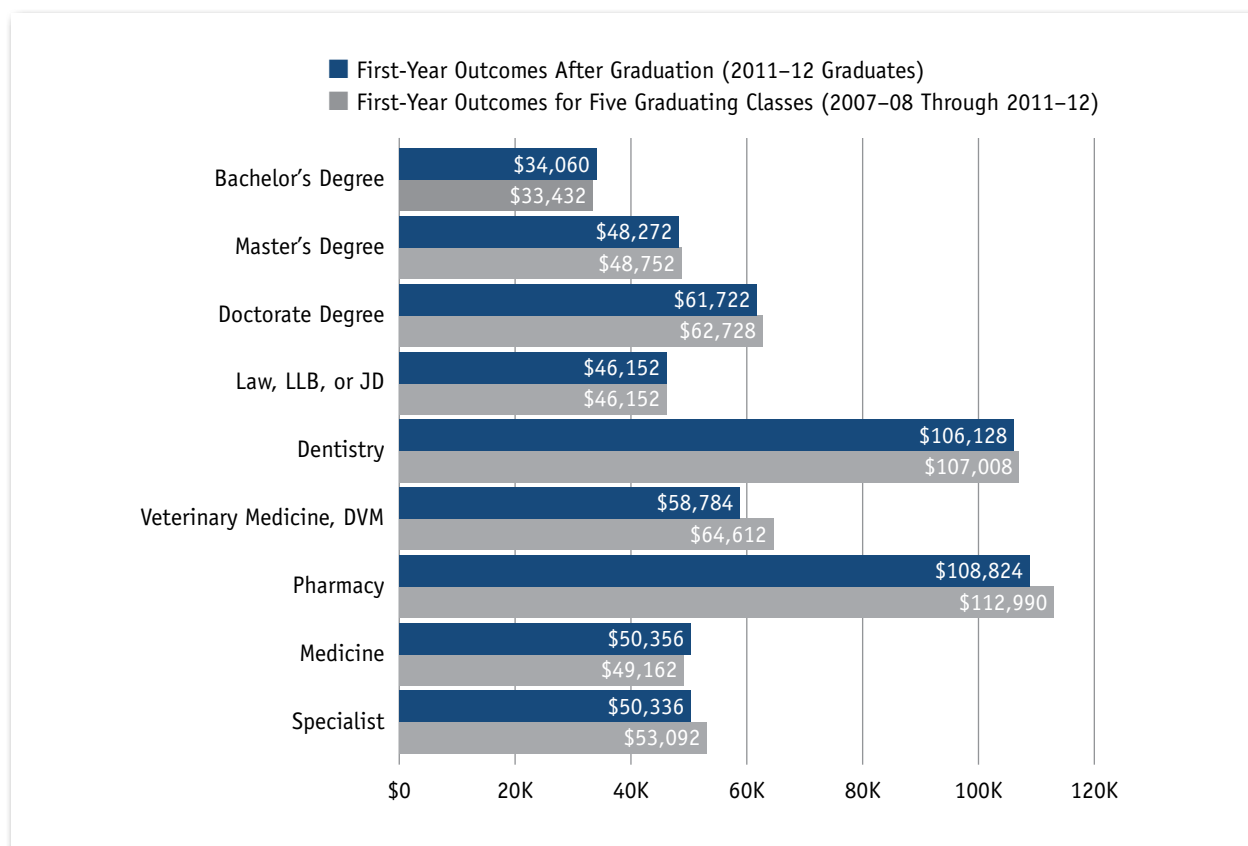
Degrees	Median First-Year Earnings
Law Degrees	
Florida Agricultural and Mechanical University	\$40,696
Florida International University	\$45,868
Florida State University	\$45,000
University of Florida	\$52,484
Pharmacy Degrees	
Florida Agricultural and Mechanical University	\$105,624
University of Florida	\$115,144
Medicine Degrees	
Florida State University	\$48,628
University of South Florida	\$48,628
University of Florida	\$49,272

Changes in First-Year Earnings Among Graduates From Universities

The median first-year earnings of graduates during the 5-year study can be compared in isolation with those from 2011–12. Although many programs will not have a sufficient number of graduates to enable reporting consistent with confidentiality constraints, reporting at higher levels of aggregation is possible. Overall, the analysis showed a decline in median first-year earnings (Figure 31).²⁰

²⁰ This decline is underestimated because first-year earnings in 2011–12 are used both individually and in the aggregated median of the 5 years. Because median first-year earnings of graduates with degrees from most programs and institutions declined in 2011–12, the 5-year totals are lower than they would have been if 2011–12 was not included.

Figure 31: Median First-Year Earnings of Graduates From Universities, by Degree



At the bachelor's degree level, Registered Nursing/Registered Nurse remained the program with the highest median first-year earnings (\$50,772, a -3.1% decrease), and Biology/Biological Sciences, General remained the program with the lowest median first-year earnings (\$25,924, a 1.0% increase).

Many of the reportable bachelor's degree programs noted increased median first-year earnings among its graduates. The greatest increase occurred in Finance, General (6.3%, from \$36,750 to \$39,080). The smallest increase was in Hospitality Administration/Management, General (0.4%, from \$28,816 to \$28,924). The largest decrease in first-year earnings occurred in Registered Nursing/Registered Nurse²¹ (-3.1%, from \$52,369 to \$50,722).

²¹ In 2010, the U.S. Department of Education reclassified Nursing/Registered Nurse (CIP code 51.1601) to Registered Nursing/Registered Nurse (CIP code 51.3801). Some institutions granted both degrees during the transition. This represents the weighted average of those two CIP codes.

Median first-year earnings was highest among graduates from University of South Florida (\$35,408, a 3.7% increase) and lowest among graduates from New College of Florida (\$22,569, a 0.8% increase).

Median first-year earnings also decreased among some graduates with bachelor's degrees from some universities. For example, the greatest decrease occurred among graduates from Florida Gulf Coast University (-1.8%, from \$33,690 to \$32,292), and the slightest decrease occurred among graduates from University of West Florida (-.04%, from \$31,684 to \$31,552).

Changes in Median First-Year Earnings Among Graduates With Master's Degrees

Comparing the data on median first-year earnings from academic years 2007–08 through 2011–12 with 2011–12 in isolation, the master's-level program with at least 1,000 completers and the highest median first-year earnings remained Registered Nursing/Registered Nurse (\$77,348, a -0.5% decrease). Social Work remained the program with the lowest median first-year earnings (\$34,222, a -4.6% decrease) among programs with more than 1,000 completers.

The greatest decreases in median first-year earnings occurred in Social Work (-4.6%, from \$35,866 to \$34,222) and Library and Information Science (-4.2%, from \$40,008 to \$38,330). Median first-year earnings increased in only three programs: Electrical and Electronics Engineering (5.3%, from \$68,352 to \$72,000), Accounting (3.7%, from \$51,728 to \$53,624), and Audiology/Audiologist and Speech-Language Pathology/Pathologist (1.5%, from \$52,640 to \$53,442).

Graduates with master's degrees from University of Florida had the highest median first-year earnings (\$54,000). Florida Agricultural and Mechanical University remained the institution through which graduates had the lowest median first-year earnings (\$38,356, a 3.4% increase).

Median first-year earnings decreased the most among graduates from Florida Atlantic University (-7.2%, from \$53,384 to \$49,538) and least among graduates from University of North Florida (-1.1%, from \$46,824 to \$46,292).

Where the Jobs Are

Although this report primarily focuses on the first-year earnings of graduates for academic years 2007–08 through 2011–12, clearly the earnings that graduates command are not only a function of the programs from which they graduate but also the strength of the labor market into which they are entering. The following section provides information about the demand for jobs, including information on the fastest growing industries and occupations forecast through 2021. This section also provides information on the top 15 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 through the rest of the decade.

As students consider their educational options, two factors are important: the size of the industries into which they might find employment and the growth rates of industries. Table 16 shows that in April 2014, the largest industry sectors in Florida were Trade, Transportation, and Utilities (20.7% of total employment); Professional and Business Services (14.9%); Education and Health Services (14.7%); Leisure and Hospitality (13.9%); and Total Government (13.8%). Together, these five industries accounted for 78% of Florida’s total non-agricultural employment.

Table 16: Non-Agricultural Employment in Florida, by Industry, April 2014 (Seasonally Adjusted) Industry Number

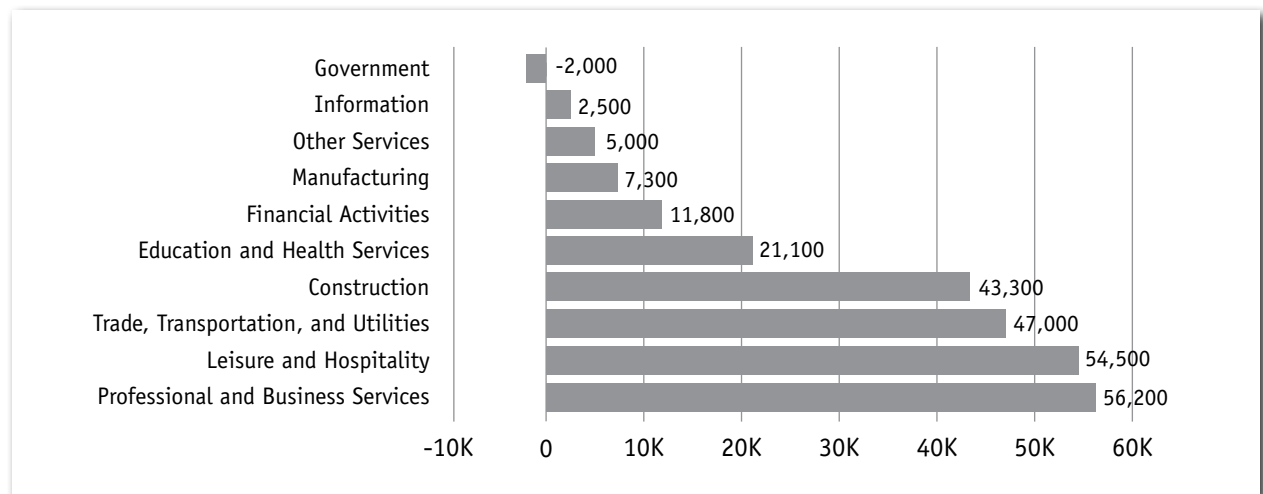
Industry	Number of Jobs	Percent of Total Jobs*
Total	7,778,500	—
Trade, Transportation, and Utilities	1,608,800	20.7%
Professional and Business Services	1,161,300	14.9%
Education and Health Services	1,146,200	14.7%
Leisure and Hospitality	1,080,500	13.9%
Total Government	1,077,000	13.8%
Financial Activities	522,800	6.7%
Construction	401,800	5.2%
Manufacturing	328,000	4.2%
Other Services	310,300	4.0%
Information	136,000	1.7%

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Program, released May 16, 2014.
Prepared by: Florida Department of Economic Opportunity, Bureau of Labor Market Statistics.

*Total does not sum to 100% because of rounding.

Of these 10 large industries, nine saw gains in jobs from April 2013 to April 2014 (Figure 32). Only Total Government lost jobs during that year.

Figure 32: Number of Jobs Gained or Lost in Florida From April 2013 to April 2014, by Industry (Seasonally Adjusted)



Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Program, released May 16, 2014.
Prepared by: Florida Department of Economic Opportunity, Bureau of Labor Market Statistics.

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 17 shows the industries where growth is most likely occur through 2021. The three fastest-growing industries are related to construction. With annual growth of more than 3.7%, Specialty Trade Contractors is projected to be the fastest growing field. The health care industry is also projected to grow rapidly due to population gains, the aging population, and improved medical technologies.

Table 17: Fastest Growing Industries* in Florida, Forecast to 2021

Rank	Industry	Annual Change	
		Number	Percent
1	Specialty Trade Contractors	8,860	3.72
2	Construction of Buildings	2,710	3.67
3	Heavy and Civil Engineering Construction	1,609	3.49
4	Ambulatory Health Care Services	14,185	3.38
5	Nursing and Residential Care Facilities	5,151	2.82
6	Professional, Scientific, and Technical Services	12,409	2.67
7	Social Assistance	2,818	2.46
8	Educational Services	3,707	2.41
9	Nonmetallic Mineral Product Manufacturing	360	2.27
10	Wood Product Manufacturing	206	2.25

Source: Florida Department of Economic Opportunity, Bureau of Labor Market Statistics. Released November 2013.

*Includes industries with a minimum of 3,500 jobs in 2013.

High growth rates do not necessarily mean many new jobs will be created. For example, Wood Product Manufacturing has a projected annual growth rate of more than 2%, but only 200 or so new jobs will be created per year. Another way to look at where the jobs will likely be is to see which industries will be creating the most new jobs, regardless of the growth rate. Table 18 presents the 10 industries in which the most jobs are likely to be created.

Ambulatory Health Care Services is a large industry that is expected to grow rapidly over the next decade. Similarly, Professional, Scientific, and Technical Services is expected to add numerous new jobs and has a high growth rate. However, two industries, Hospitals and Administrative and Support Services, have lower growth rates, but because they are large industries, they will add many more jobs than most of the fastest growing industries displayed in Table 17.

Table 18: Industries Gaining the Most New Jobs in Florida, Forecast to 2021

Rank	Industry	Annual Change	
		Number	Percent
1	Ambulatory Health Care Services	14,185	3.38
2	Professional, Scientific, and Technical Services	12,409	2.67
3	Local Government	10,649	1.46
4	Food Services and Drinking Places	10,350	1.58
5	Administrative and Support Services	10,152	1.88
6	Specialty Trade Contractors	8,860	3.72
7	Nursing and Residential Care Facilities	5,151	2.82
8	Hospitals	4,160	1.54
9	Educational Services	3,707	2.41
10	Social Assistance	2,818	2.46

Source: Florida Department of Economic Opportunity, Bureau of Labor Market Statistics. Released November 2013.

Growth in Occupations

Considering growth in occupations is also important. Table 19 shows the occupations projected to grow fastest over the next decade. The Home Health Aides occupation is projected to grow the fastest annually (+5.05%). Note that 9 of the top 10 fastest growing occupations require educational attainment beyond high school, but only one (Market Research Analysts and Marketing Specialists) requires a bachelor's degree. This confirms the value of technical credentials awarded by FCS institutions and DTCs.

Table 19: Fastest Growing Occupations* in Florida, Forecast to 2021

Rank	Occupation	Annual Growth		Hourly Wage, 2013	Educational Attainment
		Percent	Number		
1	Home Health Aides	5.05	1,578	10.52	Career Certificate
2	Personal and Home Care Aides	4.66	687	10.08	Career Certificate
3	Cement Masons and Concrete Finishers	4.17	440	15.05	Career Certificate
4	Veterinary Technologists and Technicians	4.12	307	13.94	Associate's Degree
5	Diagnostic Medical Sonographers	4.07	198	28.80	Career Certificate
6	Cost Estimators	4.06	454	28.30	Associate's Degree
7	Market Research Analysts and Marketing Specialists	3.96	587	28.33	Bachelor's Degree
8	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	3.94	972	20.11	Career Certificate
9	Physical Therapist Assistants	3.65	172	28.00	Associate's Degree
10	Nonfarm Animal Caretakers	3.60	387	10.77	Less Than High School

Note: Because the number of jobs in most industries declined during the economic downturn that began in 2007, some of the job growth projected in this forecast includes recapturing the jobs lost since that time.

*Includes occupations with a minimum employment greater than 4,000 jobs in 2013.

Where Is the Greatest Demand Relative to Supply?

Table 20 is based on Florida's Occupational Supply/Demand report that compares total supply (education/training graduates by occupation) against short-term demand (employer-posted Internet job ads by occupation).

The supply gap is the difference between occupational demand and supply. Supply gaps (marked with minus signs in Table 20) indicate that demand is greater than supply. These are occupations in which students will likely experience high probabilities of finding employment. Entry, median, and experienced earnings for each occupation are also shown, so students can determine likely earnings for the occupation.

As an example, consider the Physical Therapist occupation. Florida projects that only 528 graduates with Physical Therapist credentials will be produced by state colleges and universities through 2021. However, the estimated demand is 1,878 therapists. This leaves a shortage of around 1,350 trained individuals. Table 20 also shows that the entry level hourly wages are \$28.80 per hour; median hourly wages approach \$40; and experienced hourly wages exceed \$46. This occupation requires a master's degree or higher. These statistics reflect a good investment for prospective students due to strong job demand, an occupational shortage, and wages that are among the highest of the 15 occupations. Other occupations show similar gaps between supply and demand that students should consider when choosing their postsecondary options.

Table 20: Supply Gap of 15 Occupations Requiring Postsecondary Credentials

Occupation	Total Supply	Short-Term Demand	Supply Gap or Overage	Entry Wage	Median Wage	Experienced Wage	Educational Attainment
Physical Therapists	528	1,878	-1,350	\$28.80	\$39.94	\$46.45	Master's Degree or Higher
Securities, Commodities, and Financial Services Sales Agents	1,266	2,556	-1,290	\$18.16	\$31.04	\$56.54	Bachelor's Degree
Occupational Therapists	318	1,525	-1,207	\$27.56	\$38.98	\$44.72	Master's Degree or Higher
Industrial Engineers	352	1,239	-887	\$20.92	\$33.06	\$40.66	Bachelor's Degree
Speech-Language Pathologists	562	1,040	-478	\$22.66	\$34.74	\$40.59	Master's Degree or Higher
Medical Scientists, Except Epidemiologists	266	565	-299	\$20.29	\$32.36	\$49.79	Master's Degree or Higher
Sales Engineers	174	258	-84	\$34.69	\$48.74	\$66.78	Bachelor's Degree
Financial Managers	2,015	2,081	-66	\$35.52	\$55.22	\$73.72	Bachelor's Degree
Physician Assistants	542	602	-60	\$35.12	\$45.38	\$52.78	Bachelor's Degree
Recreational Therapists	59	83	-24	\$17.59	\$22.37	\$25.60	Bachelor's Degree

Source: Florida Department of Economic Opportunity, Bureau of Labor Market Statistics, May 2014.

Note: Based on 2012–13 graduates using March 2014 short-term demand data from the Conference Board's Help Wanted OnLine data series.

Higher Education Pays: But Far More for Some Programs Than for Others

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,²² but this report shows that the payoff varies considerably from program to program and from institution to institution. The bottom line: The degrees that students earn, and where they earn them, matter.

Most notably, the high labor market value of technical associate's degrees is clear. And for many students, some certificates may represent an efficient pathway into the labor market. At the bachelor's degree level, the data show 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, many pathways to good earnings are available to students in Florida, and the data being made available in this report and on Florida's Economic Success Metrics website (<http://www.beyondeducation.org>) can help students find them.

As students and others consider these data, some of the cautions put forward earlier in this report should be reiterated. Although wide variations occur in the first-year earnings of graduates from different programs, these variations have not been explained, leaving this issue open to further analysis. 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's degrees, so the greater differences documented here may erode over time. Indeed, the reader is encouraged to look at the longer term earnings data on Florida's Economic Success Metrics website: <http://www.beyondeducation.org>.

Additionally, postsecondary education has many rewards in addition to a boost in earnings. However, if a student borrows \$50,000 and is earning \$25,000, he or she will likely be so consumed by trying to pay off the loans as to have little time to enjoy the other rewards.

To reiterate, knowing about the variations in the economic payoff of degrees and programs of study is important—and further analysis may be needed to better understand specific institutional and program implications and nuances. The data reported here, however, should be made widely accessible to the public and should inform students, their families, taxpayers, and their representatives about the labor market outcomes of programs, degrees, and colleges.

²² <http://www.census.gov/prod/2002pubs/p23-210.pdf> and more recently <http://www.census.gov/prod/2011pubs/acs-14.pdf>

Appendix A: Match Rates

Table 21: Match Rate for Graduates of Universities, by Institution

Institution	Percent of Completers of Bachelor's Degrees With Earnings Data	Percent of Completers of Master's Degrees With Earnings Data
Florida Agricultural and Mechanical University	60%	53%
Florida Atlantic University	69%	72%
Florida Gulf Coast University	71%	79%
Florida International University	67%	70%
Florida State University	56%	49%
Florida Statewide Median	63%	61%
University of West Florida	61%	60%
University of Central Florida	67%	69%
University of Florida	48%	47%
University of North Florida	73%	76%
University of South Florida	68%	67%

Table 22: Match Rate for College Completers, by Degree and Institution

Institution	Percent of Completers With Earnings Data
Associate's in Applied Science Degree	
Broward College	77%
College of Central Florida	100%
Daytona State College	72%
Eastern Florida State College	71%
Florida Gateway College	76%
Florida Keys Community College	71%
Florida State College at Jacksonville	71%
Florida Statewide Median, A.A.S. Degree	72%
Gulf Coast State College	69%
Hillsborough Community College	84%
Indian River State College	74%
Lake-Sumter State College	73%
Miami Dade College	80%
North Florida Community College	95%
Northwest Florida State College	41%
Palm Beach State College	83%
Pasco-Hernando State College	64%
Pensacola State College	64%
Polk State College	89%

Institution	Percent of Completers With Earnings Data
Santa Fe College	71%
Seminole State College of Florida	63%
South Florida State College	87%
St. Johns River State College	87%
St. Petersburg College	72%
State College of Florida, Manatee-Sarasota	82%
Tallahassee Community College	77%
Valencia College	69%

Associate's in Arts Degree	
Broward College	63%
Chipola College	58%
College of Central Florida	62%
Daytona State College	62%
Eastern Florida State College	59%
Florida Gateway College	62%
Florida Keys Community College	56%
Florida SouthWestern State College	67%
Florida State College at Jacksonville	62%
Florida Statewide Median, A.A. Degree	62%
Gulf Coast State College	58%
Hillsborough Community College	65%
Indian River State College	60%
Lake-Sumter State College	65%
Miami Dade College	63%
North Florida Community College	53%
Northwest Florida State College	53%
Palm Beach State College	65%
Pasco-Hernando State College	65%
Pensacola State College	58%
Polk State College	66%
Santa Fe College	55%
Seminole State College of Florida	64%
South Florida State College	60%
St. Johns River State College	65%
St. Petersburg College	63%
State College of Florida, Manatee-Sarasota	63%
Tallahassee Community College	60%
Valencia College	66%

Institution	Percent of Completers With Earnings Data
Associate's in Science Degree	
Broward College	84%
Chipola College	69%
College of Central Florida	72%
Daytona State College	77%
Eastern Florida State College	76%
Florida Gateway College	82%
Florida Keys Community College	69%
Florida SouthWestern State College	84%
Florida State College at Jacksonville	76%
Florida Statewide Median, A.S. Degree	79%
Gulf Coast State College	84%
Hillsborough Community College	82%
Indian River State College	82%
Lake-Sumter State College	88%
Miami Dade College	74%
North Florida Community College	71%
Northwest Florida State College	75%
Palm Beach State College	79%
Pasco-Hernando State College	82%
Pensacola State College	76%
Polk State College	89%
Santa Fe College	77%
Seminole State College of Florida	81%
South Florida State College	90%
St. Johns River State College	78%
St. Petersburg College	80%
State College of Florida, Manatee-Sarasota	68%
Tallahassee Community College	78%
Valencia College	80%
Postsecondary Adult Vocational Certificate, State Colleges	
Broward College	80%
Chipola College	89%
College of Central Florida	79%
Daytona State College	67%
Eastern Florida State College	62%
Florida Gateway College	65%

Institution	Percent of Completers With Earnings Data
Florida Keys Community College	46%
Florida SouthWestern State College	80%
Florida State College at Jacksonville	70%
Florida Statewide Median, Postsecondary Vocational Certificate, State Colleges	72%
Gulf Coast State College	77%
Hillsborough Community College	76%
Indian River State College	74%
Lake-Sumter State College	84%
Miami Dade College	72%
North Florida Community College	86%
Northwest Florida State College	67%
Palm Beach State College	74%
Pasco-Hernando State College	73%
Pensacola State College	63%
Polk State College	80%
Santa Fe College	69%
Seminole State College of Florida	69%
South Florida State College	86%
St. Johns River State College	65%
St. Petersburg College	72%
State College of Florida, Manatee-Sarasota	60%
Tallahassee Community College	72%
Valencia College	72%
Career Certificate, FCS	
Broward College	84%
Chipola College	79%
College of Central Florida	72%
Daytona State College	76%
Eastern Florida State College	76%
Florida Gateway College	74%
Florida Keys Community College	84%
Florida SouthWestern State College	84%
Florida State College at Jacksonville	70%
Florida Statewide Median, Career Certificate, FCS	75%
Gulf Coast State College	82%
Hillsborough Community College	78%
Indian River State College	70%

Institution	Percent of Completers With Earnings Data
Miami Dade College	77%
North Florida Community College	78%
Northwest Florida State College	77%
Palm Beach State College	73%
Pasco-Hernando State College	77%
Pensacola State College	61%
Polk State College	82%
Santa Fe College	73%
Seminole State College of Florida	77%
South Florida State College	80%
St. Johns River State College	78%
St. Petersburg College	74%
Tallahassee Community College	83%
Valencia College	89%

Table 23: Match Rate for Completers of Career Certificates, by District Technical Center

District Technical Center	Percent of Completers With Earnings Data
Aparicio-Levy Technical Center	61%
Atlantic Technical Center	63%
Bradford-Union Area Career Technical Center	59%
Brewster Technical Center	60%
Cape Coral Institute of Technology	66%
Charlotte Technical Center	70%
D.A. Dorsey Educational Center	58%
DeSoto County Adult Education Center	64%
Erwin Technical Center	70%
First Coast Technical College	73%
Flagler Technical Institute	56%
Florida Statewide Median, Career Certificate, DTCs	67%
Fort Myers Institute of Technology	75%
Gadsden Technical Institute	65%
George Stone Technical Center	63%
George T. Baker Aviation	78%
Immokalee Technical Center	63%
Indian River Adult and Community Education School	59%
Lake Technical Center	76%
Learey Technical Center	65%
Lindsey Hopkins Technical Education Center	52%

District Technical Center	Percent of Completers With Earnings Data
Lively Technical Center	62%
Locklin Tech	58%
Lorenzo Walker Institute of Technology	70%
Manatee Technical Institute	70%
Marchman Technical Education Center	61%
Marion County Community Technical and Adult Education Center	74%
McFatter Technical Center	67%
Miami Lakes Educational Center	65%
Mid-Florida Tech	72%
Monroe County Adult and Community Education	61%
Okaloosa Applied Technology Center	59%
Orlando Tech	71%
Pinellas Technical Education Center–Clearwater	68%
Pinellas Technical Education Center–St. Petersburg	69%
Ridge Career	70%
Robert Morgan Educational Center	64%
Sarasota County Technical Institute	74%
Sheridan Technical Center	61%
South Dade Educational Center	46%
Sumter County Adult Center	60%
Suwannee–Hamilton Technical Center	67%
Taylor Technical Institute	63%
Technical Education Center of Osceola	68%
The English Center	51%
Tom P. Haney Technical Center	70%
Traviss Career Center	73%
Wakulla County Adult and Community Education	69%
Walton Career Development Center	68%
Washington–Holmes Technical Center	63%
Westside Tech	60%
Winter Park Tech	65%
Withlacoochee Technical Institute	68%

Appendix B: Methodology

Completers Cohort 2007–08 Through 2011–12

The cohort includes graduates and completers during their first year after graduation from public postsecondary educational institutions for each academic year 2007–08 through 2011–12. Florida’s public postsecondary educational institutions include the State University System of Florida, the Florida College System, and District Technical Centers. The data for this cohort reflect employment, earnings, continuing education, and public assistance for the fall following graduation.

Key Concepts

Median first-year earnings and continuing education are key concepts related to the employment and continuing education outcomes used throughout the report. The rates reported are combined 5-year rates for completers in 2008, 2009, 2010, 2011, and 2012. This approach provides sufficient data at the local program level to enable students, parents, and other stakeholders to view more complete results. The minimum number of completers to allow reporting for this project is 10. Results are suppressed when fewer completers appear on any specific topic.

The median is the middle score in a distribution, and the first-year earnings of completers reported here reflect the 5-year median. Annualized calendar year fourth quarter (October–December) earnings of completers 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)²³ 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 only information about employment and earnings. The records do not provide data about industries or occupations in which completers are employed; therefore, it is not possible to know whether completers are employed in their fields of study or other fields.

²³ The Wage Record Interchange System 2 (WRIS2) was developed from the interest of some states to share aggregate employment and wage outcomes with other states. The program is voluntary. Currently, 35 states participate in WRIS2: Arizona, Arkansas, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Mexico, New Jersey, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, and Wyoming. A map of participating states is available at http://www.doleta.gov/performance/pfdocs/WRIS2_Map_May_2014.pdf.

The continuing education data reflect a 5-year average. The number of students enrolled in higher education in the academic year following completion for academic years 2007–08 through 2011–12 was summed and divided by the total number of completers across the 5 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). 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."²⁴ For more information about CIP codes, visit NCES's website: <http://nces.ed.gov/ipeds/cipcode/>.

For school district technical centers and college non-college credit programs, Florida uses a 10-digit CIP code for the classification of programs. The middle 6-digits are part of the NCES taxonomy.

Number of Completers

The total number of students who completed or graduated from the program in the cohort.

Employment Records

Employment data obtained from the UI wage records, as provided by the Florida Department of Revenue and WRIS2.

²⁴ <http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>

First-Year Full-Time Earnings

The earnings of completers during the fourth quarter (October–December) following graduation. The earnings are equal to or exceed the full-time threshold. The full-time threshold equals the hourly minimum wage, multiplied by 40 hours per week, multiplied by 13 weeks. Earnings are annualized by multiplying by four.

Total Found Employed Percentage

The number of completers with earnings divided by the total number of completers.

Total Found Employed Full-Time Percentage

The number of completers with earnings at or exceeding the full-time threshold 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 completers reported here reflect the 5-year median. Annualized calendar year fourth quarter (October–December) earnings of completers 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.

Found Continuing Education Percentage

The number of completers who were enrolled at a State University System of Florida institution, Florida College System institution, or District Technical Center in the fall and spring semesters following graduation or completion of an educational program divided by total number of completers.

Public Assistance Percentage

The number of completers who received public assistance from the Supplemental Nutrition Assistance Program or Temporary Assistance for Needy Families during the fourth quarter of the year divided by total number of completers.

Student Loan Debt

The total average amount of student loans for 2011–12 at a public postsecondary educational institution, divided by the number of students attending the school for that same period.

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. Finally, the records are unduplicated between years, therefore students are represented only once per year. Student loan debt data are self-reported by each public educational institution at the institution level. The data reflect the average student loan debt of all students (not just graduates) attending the educational institution in 2011–12. The data include federal student loans from Stafford, Perkins, Graduate PLUS, Parent PLUS, and TEACH programs.

Appendix C: Degrees/Certifications

Offered By: Degrees/Certifications

Universities/Colleges **Bachelor's degrees:** An academic degree earned in a specific field of study, such as biology, sociology, psychology, education, etc. Bachelor's degrees can generally be completed in 4 years, but the time period can vary depending on the student and course of study.

Universities **Master's degrees:** An academic degree earned in a specific field of study that provides a higher overview of the field of study or area of professional practice beyond the bachelor's degree. Master's degrees can generally be completed in 5 years, but the time period can vary depending on the student and the course of study. Master's degree programs are offered in a variety of fields, such as accounting, chemical engineering, communication, higher education, psychology, public administration, etc.

Universities **Specialist degrees:** A degree designed for individuals who want to develop advanced knowledge and skills beyond the master's degree but who do not want to pursue a doctorate degree. Examples of specialist degrees include early childhood education, English education, library and information studies, counseling and human systems, educational leadership and policy, etc. Specialist degrees can generally be completed in 6.5–7 years depending on the student and course of study. The last year is often completed as part of an internship program.

Universities **Research doctoral degrees:** A Ph.D. or other doctor's degree that requires advanced work beyond the master's level, including the preparation and defense of a dissertation based on original research, or the planning and execution of an original project demonstrating substantial artistic or scholarly achievement. Some examples of this type of degree may include Ed.D., D.M.A., D.B.A., D.Sc., D.A., or D.M., and others, as designated by the awarding institution. Research doctoral degrees can generally be completed in 7 years depending on the student and course of study. The last 2 years often consist of original research and writing a dissertation. Research doctoral programs are offered in a number of areas, such as engineering, biological sciences, business administration, computer science, educational leadership and policy, public administration, social work, neuroscience, nursing, statistics, etc.

Universities

Professional doctoral degrees: A doctor's degree conferred upon completing a program that provides the knowledge and skills for the recognition, credential, or license required for professional practice. The degree is awarded after a period of study such that the total time to the degree, including both pre-professional and professional preparation, equals at least six full-time equivalent academic years. Some of these degrees were formerly classified as first-professional and may include chiropractic (D.C. or D.C.M.), dentistry (D.D.S. or D.M.D.), law (J.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O), pharmacy (Pharm.D.), podiatry (D.P.M., Pod.D., D.P.), veterinary medicine (D.V.M.), and others, as designated by the awarding institution.

Colleges

Associate's in Art (A.A.) degree: A degree designed for students who intend to earn bachelor's degrees from colleges or universities that offer 4-year degrees. The degree requires a minimum of 2 years of full-time study or the equivalent. The A.A. degree is equivalent to the freshman and sophomore years (lower division) of a university program and requires a total of 60 college-level credit hours for completion, including 36 general education credits and foreign language competence. The Statewide Articulation Agreement guarantees the transfer of 60 credits earned as part of the A.A. degree.

Colleges

Associate's in Science (A.S.) degree: A degree designed for students who plan to enter employment. The degree requires a minimum of 2 years of full-time study or the equivalent of at least 60 college credit hours. Generally, the A.S. degree is designed for students who want to focus on a specific technical area and want to pursue their education beyond an associate's degree. Examples include business administration, criminal justice technology, crime scene technology, drafting and design technology, networking services technology, nursing (R.N.), dental hygiene, fire science technology, health information technology, etc. The A.S. degree must include a minimum of 15 college credits of transferrable general education coursework.

Colleges

Associate's in Applied Science (A.A.S.) degree: A degree designed to prepare students for employment in a technical occupation and to enter that occupation with a marketable skill. This 2-year degree program is generally designed for students who do not want to pursue education beyond an associate's degree. The A.A.S. degree must include a minimum of 15 college credits of transferrable general education coursework.

Colleges	Advanced technical certificate: A certificate generally designed for individuals who have already completed an A.S. or A.A.S. degree and are seeking advanced, specialized preparation in a particular career field to supplement their degree.
Colleges	Educator Preparation Institutes (EPIs): Provides an alternate route to teacher certification for mid-career professionals and college graduates who were not education majors. Students with a baccalaureate degree from a regionally accredited college or university may enter an EPI to prepare to take the Florida Teacher Certification Exam in Professional Preparation and Education Competence.
Colleges	Certificate of Professional Preparation (CPP): Consists of 9–30 credit hours of courses and course equivalent modules to prepare baccalaureate degree holders for licensure, certification, credentialing, examinations, or other demonstrations of competency necessary for entry into a professional occupation, such as a CPP in Project Management.
Colleges	College credit certificates: A series of college-credit courses that prepares students for entry-level employment in specific career fields or for career advancement. These certificates can generally be completed in 1 year or less. College credit certificates must be part of an A.S. or A.A.S. degree. Examples include drafting, information technology technician, office specialist, entrepreneurship, computer programming, educational assisting, etc.
Colleges/DTC	Apprenticeships: 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 a college or District Technical Center (DTC). Students work during the day and attend classes one or two nights a week or on weekends during the academic year. Programs can generally be completed in 1–4 years. Successful completers are awarded journeyman credentials, which are nationally recognized. Examples of apprenticeship programs include air conditioning, refrigeration, and heating technology; building construction technologies; commercial foods and culinary art; plumbing technology; machinist; roofing, and heavy equipment operation.

Colleges/DTC

Career certificates (formerly known as Postsecondary Adult Vocational (PSAV) certificates): A series of vocational courses that prepares students for entry level employment in specific career fields. The programs vary in length from 40 hours to more than 1,500 hours. Examples include correctional probation officer, cosmetology, culinary operations, firefighter, medical assistant, and practical nursing.

Colleges/DTC

Applied Technology Diploma (ATD): A course of study that is part of an A.S. or A.A.S. degree, is less than 60 credit hours, and leads to employment in a specific occupation. These diploma programs are offered by colleges and DTCs as non-college credit. Examples include dental assisting and emergency medical technician.

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A product of College Measures' Economic Success Metrics Project



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