



## Florida's University Graduates Tend to Stay in the State Workforce After Completing Their Degrees

### *at a glance*

State university graduates with baccalaureate, master's, and professional degrees are likely to stay in the Florida workforce. However, graduates with doctoral degrees are more likely to not appear in Florida's workforce, likely because many of them aspire to teach at the college level, and universities tend not to hire their own graduates. Graduates of schools with high percentages of in-state and part-time students are more likely to remain in the state workforce than graduates of other institutions.

Persons who graduate from programs that prepare students for critically needed professions, such as education and health-related fields, are more likely than graduates in other fields to stay in the Florida workforce and work in the industry for which they were trained. Graduates of programs that prepare students in areas such as engineering that may advance the state's economic development goals are more likely not to find employment in the Florida workforce.

### Scope

The Florida Legislature directed OPPAGA to examine the value of baccalaureate and graduate degrees to the state's workforce. One of the issues in this policy area is whether university graduates tend to stay in Florida's workforce or

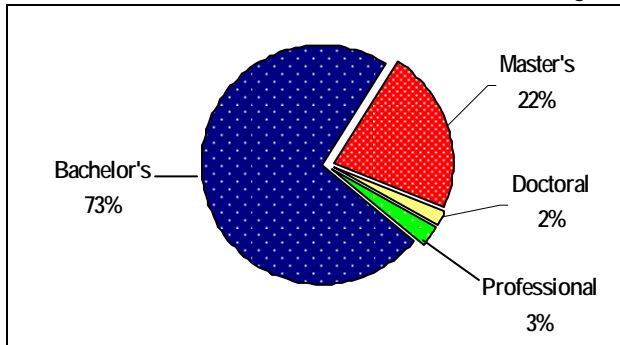
migrate out of state. To address this issue, we tracked a cohort of students graduating in spring 1996 from state universities as they progressed into the Florida workforce. We matched each graduate's degree information to the Florida Education and Training Placement Information Program (FETPIP) wage data to identify where the students found employment.<sup>1</sup> This report provides an overview of the degrees earned by the spring 1996 cohort, the percentage of the graduates in the cohort that were subsequently in the Florida workforce, and the industry employing them. A companion report provides information on the wages earned by this cohort over time and how those wages compared with those earned by persons who earned associate degrees.

### Background

The state university system comprises 11 institutions that awarded a total of 61,538 undergraduate and graduate degrees to 59,771 graduates in 2004-05. As shown in Exhibit 1, 73% of these degrees were awarded at the baccalaureate level, 22% were at the master's level, and 5% were at the doctoral or professional level.

<sup>1</sup> The wage data in FETPIP includes only Florida industries and does not include graduates who were employed outside the state, were in the military, or were self-employed. It also does not include information about the type of occupations graduates went into, only the industry that employed them.

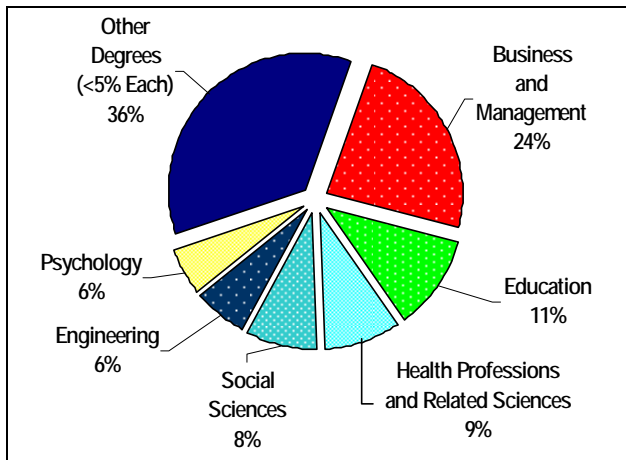
**Exhibit 1  
Most 2004-05 Graduates Earn Baccalaureate Degrees**



Source: Florida Board of Governors, Number of Degrees Awarded by the State University System and OPPAGA analysis.

Graduates from Florida state universities are highly concentrated in six main degree fields (see Exhibit 2).<sup>2</sup> The most popular degree field is business, followed by education and health. Since 1995, the number of degrees institutions in the state university system awarded per year has increased by 45%. See Appendix A for a breakdown of the main degree levels for the spring 1996 graduates.

**Exhibit 2  
The Distribution of 2004-05 University Degrees Is Heavily Concentrated in Business, Education, and Health Fields**



Note: Larger degrees that compose 'Other' include communication, journalism, and related programs (4%); English language and literature /letters (3%); visual & performing arts (3%); biological and biomedical sciences (life sciences) (3%); security and protective services (3%); public administration and social service professions (2%); computer and information sciences (2%); liberal arts and sciences (2%); and law (2%). Each of the degree fields not mentioned only accounted for less than 2% of all degrees awarded.

Source: Florida Board of Governors, Number of Degrees Awarded by the State University System.

The Legislature funds the State University System through a mix of general revenue and lottery appropriations. Universities also receive funds through student tuition and fees. For Fiscal Year 2005-06, the department reported it received \$1.84 billion from general revenue and lottery funds for university operations. In 2005, tuition averaged \$71.57 per credit hour for Florida resident undergraduates and an average of \$473.69 per credit hour for non-resident undergraduates. The total tuition paid by all students (undergraduate, graduate, and medical professional) provides approximately \$884 million for university operations.

**Questions and Answers**

We addressed three questions in our analysis.

- What percentage of state university graduates are not found in the Florida workforce?
- How does in-migration affect the educational attainment of Florida's population?
- Are university graduates in critically needed fields of study staying in the Florida workforce?

***What percentage of state university graduates are not found in the Florida workforce?***

About half of university bachelor, master's, and professional degree recipients were employed in Florida eight years after graduation. The largest loss of graduates occurred the first year after they left school, when 28% of all spring graduates did not appear in Florida employment data. The wage data in FETPIP includes only Florida industries and does not include graduates who were employed outside the state, were in the military, or were self-employed. While some graduates in all degree areas left the state workforce over time, the rate at which they left differed by type of degree they received (see Exhibit 3).

- The majority of graduates with baccalaureate (58%) and master's (53%) degrees remained employed in the Florida workforce eight years after graduation.
- Graduates with doctoral degrees were less likely to remain in the Florida workforce, with 31% staying and working for Florida industries eight years after graduation. Since universities tend not to hire their own graduates, doctoral

<sup>2</sup> Degrees that account for 5% or more of the total degrees awarded in 2004-05.

graduates who aspire to become university professors may need to move outside the state.

- Graduates with professional degrees were more likely to remain employed in Florida. Fifty-nine percent of graduates with professional degrees were found in Florida wage data eight years after their graduation, and this percentage may be understated because they also may be more likely to be self-employed than graduates from other fields.

Exhibit 3 shows the proportion of graduates still employed in the Florida workforce eight years after graduation. Graduates who did not show up in the Florida workforce could be self-employed, unemployed, stay-at-home parents, working in another state, active in the military, incarcerated, or pursuing further education.

**Exhibit 3  
Graduates with Baccalaureate and Professional Degrees Were More Likely to Remain in the Florida Workforce**

	Number of Spring 1996 Graduates	Percentage of Graduates	
		Present in the Florida Workforce 1 Year After Graduation	Employed in Florida 8 Years After Graduation
Bachelor's	14,468	74%	58%
Master's	3,189	68%	53%
Doctoral	347	44%	31%
Professional	768	61%	59%

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

The percentage of graduates remaining in the Florida workforce varied by the university they attended, likely because Florida's universities serve students with different characteristics. As shown in

**Exhibit 4  
Institutional Characteristics Influence Graduate Employment in the Florida Workforce**

State Universities	Institutional Characteristics (2002-2003)		1996 Spring Baccalaureate Graduates	Percentage Employed in Florida After Graduation		
	% Out-of-State	% Part-Time		1 Year	4 Years	8 Years
Florida Agricultural & Mechanical University (FAMU)	22.03%	13.18%	749	60%	52%	47%
Florida State University (FSU)	14.58%	17.36%	2,556	69%	58%	51%
University of Florida (UF)	13.20%	14.78%	2,956	66%	56%	52%
University of West Florida (UWF)	9.84%	38.45%	556	73%	61%	54%
Florida Atlantic University (FAU)	9.41%	49.95%	1,113	80%	72%	62%
University of South Florida (USF)	6.34%	41.02%	2,404	78%	69%	63%
University of North Florida (UNF)	3.17%	38.26%	522	78%	68%	64%
University of Central Florida (UCF)	6.32%	31.80%	2,172	83%	74%	65%
Florida International University (FIU)	10.83%	45.19%	1,440	80%	74%	68%

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

Exhibit 4, universities with higher percentages of out-of-state students and full-time students were less likely to have their graduates employed in the Florida workforce. The exception was the University of West Florida, which is close to another state and a large military base.

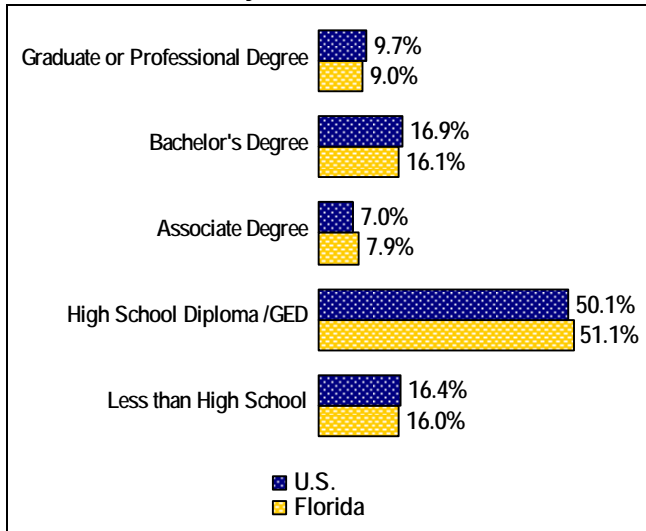
- The University of Florida, Florida State University, Florida A&M University, and University of West Florida all had lower percentages of graduates employed in the state workforce than other institutions. Both the University of Florida and Florida State University are nationally known research institutions and attract more full-time and out-of-state students than other institutions. Graduates from these two institutions also are likely to further their education, thus inhibiting them from seeking employment. Florida A & M University has similar student characteristics due to its reputation as a historically black college. The University of West Florida has higher percentages of part-time and in-state students than the other institutions in this group. However, its proximity to a large military base and the state of Alabama may result in a larger proportion of its graduates in the military or employed across the state line.
- The remaining five state universities awarding degrees in 1996 have relatively low proportions of out-of-state students and high proportions of part-time students.<sup>3</sup> Many of these students are regional commuters who already are invested in the local economy and therefore less likely to leave after graduation.

<sup>3</sup> New College of Florida was not included in the analysis as it was part of the University of South Florida in the spring of 1996.

**How does in-migration affect the educational attainment of Florida's population?**

While nearly half of Florida university graduates are not found in the Florida workforce, many college graduates from other states are moving to Florida. While Florida ranks relatively low in the production of baccalaureate degrees, the education level of its citizens is similar to the national level because of large in-migration of college graduates.<sup>4</sup> Florida nets the largest in-migration of baccalaureate degree holders (193,233 people according to 2000 U.S. Census data) among all 50 states. The majority of the baccalaureate degree holders moving to Florida are between the ages of 22 and 64 and therefore likely to join the workforce. Florida gains the most people with undergraduate degrees from New York, Georgia, New Jersey, and California. In contrast, most people migrating from Florida to other states move to Georgia, California, Texas, North Carolina, and Virginia. As a result of this net in-migration, the education level of Florida's residents in 2003 mirrors the national rates (see Exhibit 5).

**Exhibit 5  
The Educational Attainment of Florida Citizens 25 and Older Closely Mirrors the U.S. Distribution**



Source: U.S. Census, 2003 American Community Survey.

<sup>4</sup> Approximately 19 per 1,000 Florida residents ages 18-44 who graduated high school and who did not previously attain a college degree, earned a bachelor's degree in 2002-03. Florida ranks slightly below the national average of 22.6 and falls in the bottom third among all states in new degree production.

**Are university graduates in critically needed fields of study staying in the Florida workforce?**

While graduates with critically needed degrees such as education and health care are likely to remain employed in Florida, those earning degrees intended to foster economic development are less likely to be employed in the state. The Board of Governors of the State University System has given priority to the production of graduates with degrees that are critically needed by the Florida workforce or are needed to advance statewide economic development. Exhibit 6 shows the percentage of 1996 spring graduates with critically needed and high-wage/economic development degrees that remained in the Florida workforce eight years.

**Exhibit 6  
Graduates with Critically Needed Degrees Remained in the State Eight Years Later, But Graduates with Degrees That Facilitate Economic Development Were More Likely to Not be Found in the State Workforce**

Bachelor's Degree	Percentage Found Employed in Florida	Median Wages
Education	70%	\$33,307
Health Professions and Related Sciences	67%	49,019
Computer and Information Sciences	56%	59,737
Engineering	53%	63,852
Biological and Biomedical Sciences (Life Sciences)	51%	40,000

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

According to workforce demand data, graduates with teaching and nursing degrees are in high demand in the Florida workforce, and these graduates tended to remain in the Florida workforce eight years after graduation—two-thirds of people earning health-related degrees were employed in-state, while 70% of Florida's teaching graduates were employed in Florida.

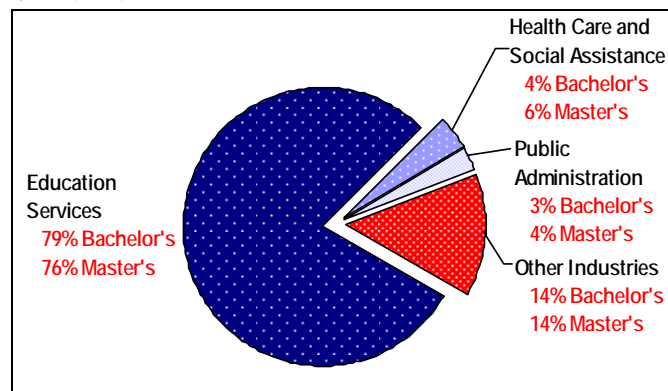
In contrast, only slightly more than half of graduates with degrees in engineering, biochemical and chemical sciences, and computer and information sciences were employed in Florida. These graduates had higher earnings and may have furthered the state's economic development efforts. However, workforce



demand data shows that Florida has a relatively low demand for graduates in fields such as engineering, and higher proportions of these graduates were not found in the Florida workforce.

Most education majors were working in the educational services industry in Florida. A majority of education graduates were employed in the Florida education sector and remained there over time. Of those graduates earning education degrees, 70% found employment in the Florida workforce after they graduated. As shown in Exhibit 6, most of these graduates (79% bachelor's, 76% master's) were employed in Florida's educational services industry and stayed there eight years after graduation (see Exhibit 7).

**Exhibit 7  
Most Spring 1996 Baccalaureate and Master's Graduates of Education Programs Are Employed in the Education Service Industry Eight Years After Graduation**



(N=1,566 baccalaureate graduates; 537 master's graduates)

Note 1: Some of the main 'Other Industries' include administrative/support, waste management and remediation services (2%); retail trade (2%); finance and insurance (2%); professional, scientific, and technical services (2%); information (1%); and wholesale trade (1%).

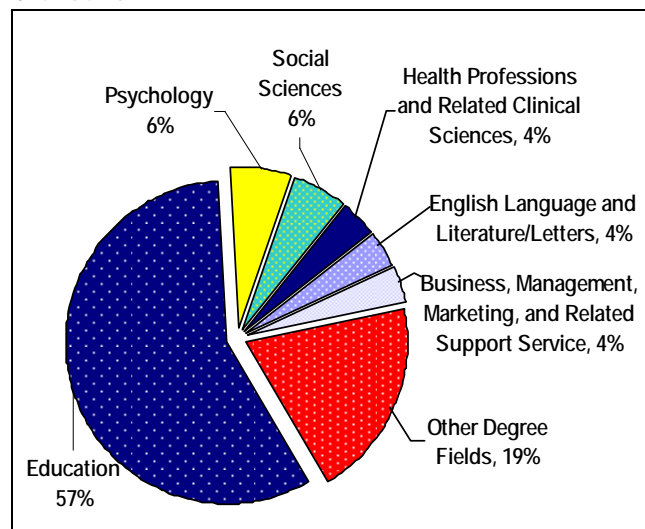
Note 2: The 'Administrative/Support, Waste Management and Remediation Services' category includes employment services; credit bureaus; telemarketing bureaus; investigation services; collection agencies; court reporting services; convention and visitors bureaus; and waste management services.

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

Graduates from other fields of study also become employed in the Florida's education system. While education majors constituted the majority (57%) of the graduates employed in the system, graduates from fields other than education also were employed in this field eight years after

graduation. While graduates from some of these fields, such as English, may have been employed as teachers, graduates from other fields, such as psychology and health-related fields, may have been employed as school support personnel. Exhibit 8 shows the proportion of degree fields that were employed in the education services industry.

**Exhibit 8  
Proportion of Baccalaureate Graduates Employed in the Education Service Industry Eight Years After Graduation**



(N=2,163 baccalaureate graduates)

Note: The larger 'Other Degree Fields' include biological and biomedical sciences (life sciences) (2%); communication, journalism, and related programs (2%); visual and performing arts (2%); public administration and social service professions (2%); and security and protective services (2%). Each of the degree fields not specifically mentioned only accounted for less than 2% of all degrees employed in the education service industry.

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

The education services industry includes a variety of jobs in both the public and private sector. However, the vast majority of the spring 1996 graduates in the educational services industry (89%) worked in the public sector, earning a median salary of \$1,011 higher than those who worked in the private educational sector. Those employed in the public sector were concentrated in local school districts (87%), with only 13% working in the community college and state university systems. Exhibit 9 shows the percentage of graduates in different fields who worked for the public and private sectors of the education industry.

**Exhibit 9**

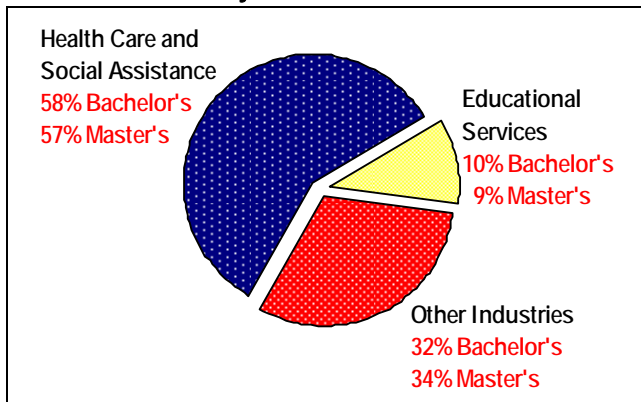
**Most Baccalaureate Degree Holders Working in the Education Industry Work for the Public Sector**

Degree Field	Private Sector		Public Sector		Difference Between Public and Private Wages
	Percentage	Median Wages	Percentage	Median Wages	
Education	6%	\$24,226	94%	\$33,758	\$ 9,532
Psychology	13%	39,736	87%	31,796	(7,940)
Social Sciences	12%	35,315	88%	29,864	(5,452)
Health Professions and Related Clinical Sciences	12%	42,216	88%	34,027	(8,189)
English Language and Literature/Letters	18%	27,122	82%	31,438	4,316
Business, Management, Marketing, and Related Support Service	21%	38,503	79%	32,568	(5,935)
<b>Total</b>	<b>11%</b>	<b>\$31,956</b>	<b>89%</b>	<b>\$32,967</b>	<b>\$ 1,011</b>

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

Graduates with health-related baccalaureate and master's degrees tended to remain in the Florida workforce. Similar to graduates with education degrees, the majority of persons earning health-related degrees were employed in a Florida industry eight years after graduation (67% of baccalaureate degree holders and 58% of persons earning master's degrees). As shown in Exhibit 10, most of those graduates remaining in Florida workforce were employed in the health care industry.

**Exhibit 10**  
**Most Graduates with Baccalaureate and Master's Degrees in Health-Related Fields Who Remain in the Florida Workforce Are Employed by the Health Care Industry**

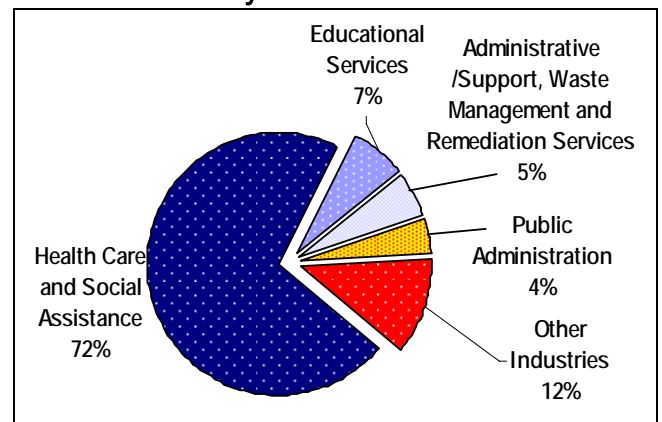


Notes: Some of the main 'Other Industries' in which the 775 baccalaureate graduates are employed include retail trade (7%); administrative/support, waste management and remediation services (4%); public administration and social service professions (3%); finance and insurance (3%); and wholesale trade (3%). Some of the main 'Other Industries' in which the 137 master's graduates are employed include public administration (7%); wholesale trade (5%); administrative/support, waste management and remediation services (5%); and retail trade (4%).

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

Within the healthcare industry, nurses are among the most highly demanded workers. As with holders of other health-related degrees, most spring 1996 graduates of associate (77%), baccalaureate (66%), and master's (71%) nursing programs remained in the Florida workforce eight years after graduation. As shown in Exhibit 11, most of those remaining in Florida were employed in the health care and social assistance industries.

**Exhibit 11**  
**Most Graduates with Baccalaureate or Master's Degrees in Nursing Are Employed in Florida's Health Care Industry**



Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

However, as shown in Exhibit 12, approximately half of spring 1996 nursing graduates secured employment in hospitals, where the need for nurses is particularly acute. Since hospitals pay more on average than other employers of nurses with associates or baccalaureate degrees, this may reflect the working conditions in hospitals, where nurses often must work long hours and perform physically taxing duties.

**Exhibit 12**  
**Approximately Half of Nursing Degree Holders Work in a Hospital**

Nursing Graduates in Florida 2004 Workforce		Employment in 2004				Wage Difference
		Hospital		Non-Hospital		
Degree Level		Percentage	Median Wages	Percentage	Median Wages	
Associate of Science	1,126	56%	\$49,038	44%	\$43,394	\$ 5,644
Bachelor's	412	45%	52,950	55%	49,108	3,842
Master's	62	24%	66,463	76%	70,564	-4,101

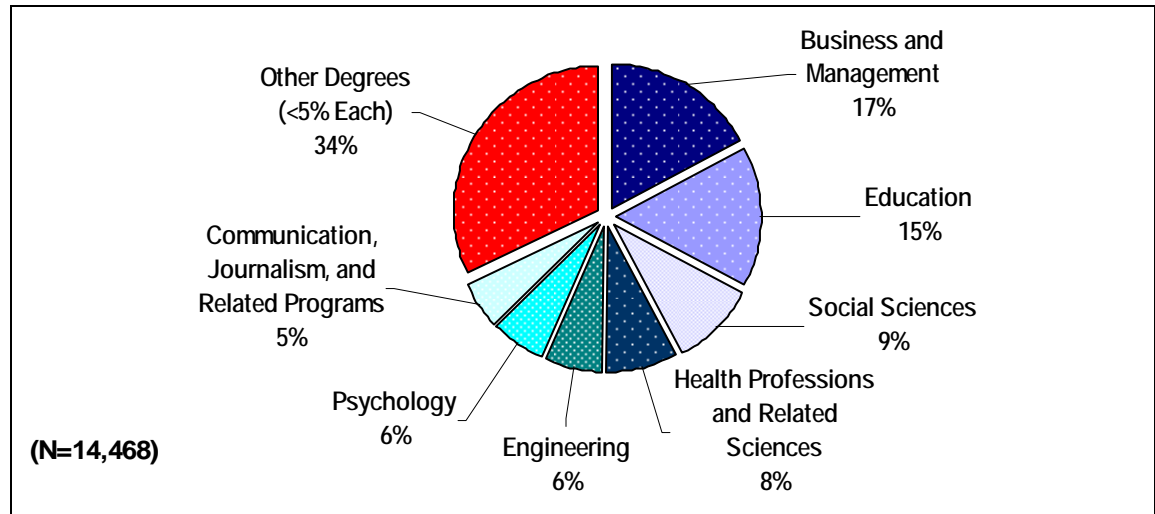
Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

*Appendix A*

# Distribution of the Degrees Earned by the Spring 1996 Graduates

This distribution of the fields of study for the baccalaureate, master’s, doctoral, and professional degrees varied by degree level. The following charts show that most baccalaureate and master’s degrees were in the fields of business and education, while most doctoral degrees were in the fields of education and engineering. Most professional degrees were in the areas of law and medicine.

**Table A-1**  
**Distribution of 1996 Spring Baccalaureate Degrees Is Heavily Concentrated in Business and Education**

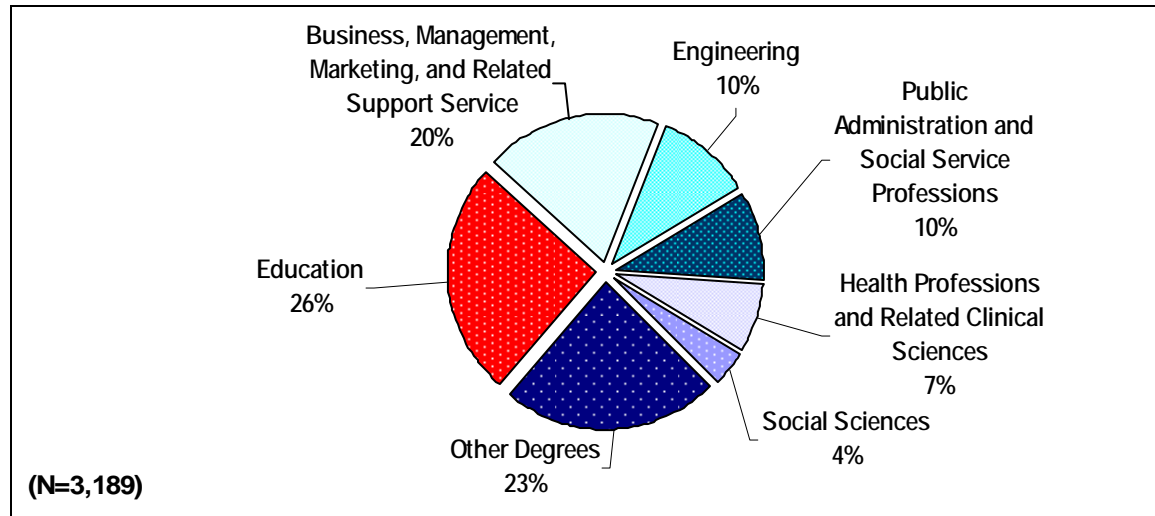


Note: The larger degrees that compose ‘Other’ include security and protective services (4%); biological and biomedical sciences (4%); English language and literature/letters (4%); visual and performing arts (3%); public administration and social service professions (2%); liberal arts and sciences (2%); and computer and information sciences (2%). Each of the degree fields not mentioned only accounted for less than 2% of all degrees awarded.

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.



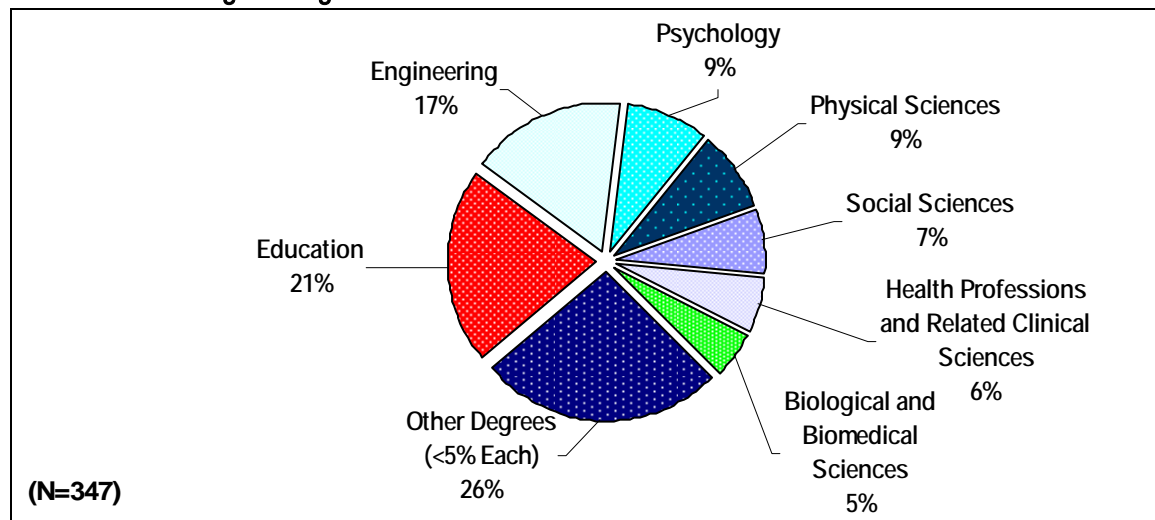
**Table A-2**  
**Distribution of 1996 Spring Master's Degrees Is Heavily Concentrated in Education and Business**



Note: The larger degrees that compose 'Other' include library science (2%); architecture and related services (2%); visual and performing arts (2%); physical sciences (2%); English language and literature/letters (2%); computer and information sciences (2%); and psychology (2%). Each of the degree fields not mentioned only accounted for less than 2% of all degrees awarded.

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

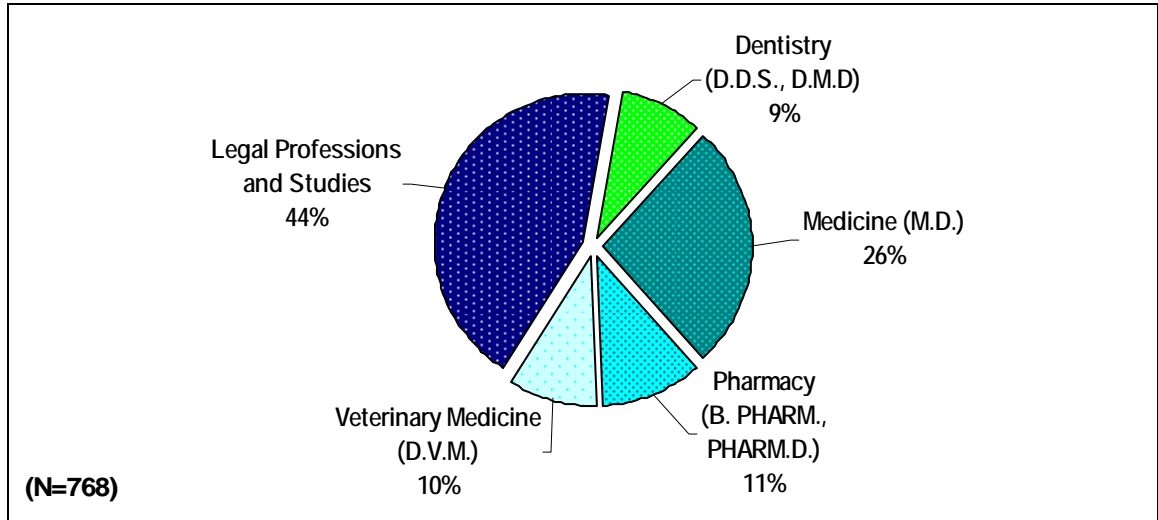
**Table A-3**  
**Distribution of 1996 Spring Doctoral Degrees Is Heavily Concentrated in Education and Engineering**



Note: The larger degrees that compose 'Other' include English language and literature/letters (4%); business, management, marketing, and related support service (4%); computer and information sciences and support services (2%); agricultural sciences (2%); foreign languages, literatures, and linguistics (2%); and public administration and social service professions (2%). Each of the degree fields not mentioned only accounted for less than 2% of all degrees awarded.

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

**Table A-4**  
**Distribution of the 1996 Spring Professional Degrees Is Split Between the Health and Legal Fields**



Note: While the majority of the spring 1996 graduates from the professional health field are medical doctors (47%), other graduates are in non-physician fields such as pharmacy (20%), dentistry (16%), and veterinary medicine (17%).

Source: OPPAGA analysis of 1996 spring SUS graduate and wage data.

# *The Florida Legislature*

## *Office of Program Policy Analysis and Government Accountability*

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- [Florida Government Accountability Report \(FGAR\)](#) is an Internet encyclopedia of Florida state government. FGAR offers concise information about state programs, policy issues, and performance.
- [Best Financial Management Practices Reviews of Florida school districts](#). In accordance with the *Sharpening the Pencil Act*, OPPAGA and the Auditor General jointly conduct reviews to determine if a school district is using best financial management practices to help school districts meet the challenge of educating their students in a cost-efficient manner.

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