

The Florida College System: A Key Education and Workforce Training Source

Introduction

The weak economy has focused attention on the educational needs of today's workforce. The 21st century ushered in a new definition of what it means to be adequately educated — many careers and jobs now require credentials beyond a high school diploma. According to Georgetown University's Center on Education and the Workforce, 103 million of the 162 million jobs for 2018 will require postsecondary education; 49 million will require some college, postsecondary certificates, and associates degrees while, 54 million will require bachelor or graduate degrees.

A significant disconnect exists between the jobs that are available and the number of qualified individuals to fill these vacancies. This will not change as the state and the nation emerges from the recession. In 2018, 60% of jobs will require some postsecondary education.¹ However, the latest data from the 2009 American Community Survey (ACS) show that 36.5% of Florida's citizens have an associate's degree or higher and 26.6% have a bachelor's degree or higher.

The Florida College System (FCS) has been and continues to be responsive to the education and training needs of Florida's business and industry. Institutions in the FCS readily adapt to the needs of each service region by providing retraining and retooling for industries developing in the state. This report highlights jobs that are projected to grow from 2010 to 2018 and compares them to career and technical education program.

¹ "Boosting College Completion for a New Economy," Bruce Vandal and Patrick Kelly, The Education Commission of the States and The National Center for Higher Education Management Systems, 2011.



Background

With many of the education and training requirements for jobs projected through 2018 changing, it is important that workers seeking placement adapt to those needs. Furthermore, it is expected that as the nation recovers from the recession of 2007 (estimated to be around 2015), the new jobs that emerge will be vastly different from those jobs lost during the recession.² Those low-skilled jobs that were lost will not return and individuals with only a high school education (or lower) will be unable to fill the jobs that are created. To improve employability, postsecondary training and education will be especially important because, according to Georgetown University, the workforce that has emerged from each recession has been vastly different from what existed before in terms of education requirements.³

Aside from changing education and training needs, another common and recurring theme relating to the nation's and the state's economic situation is that the current postsecondary system is not producing enough certificate and degree graduates who can fill the vacancies available as new jobs surface and require workers to deal with increasing use of emerging technologies and navigate the complexities of the 21st century workplace. A recent report suggests that community colleges can benefit from partnering with employers for guidance in offering their students an education with relevant skills for the workplace.⁴ The FCS, with its high productivity and historic mission of responding to local workforce needs, is well positioned to provide individuals with the in-demand skills critical to economic recovery.

Methodology

The Agency for Workforce Innovation (AWI) provides projections of "hot" jobs in Florida based on labor market statistics from 2010-2018. Using a Classification of Instructional Programs (CIP) code to Standard Occupational Classification (SOC) code linkage file, this report aligns careers that are projected to experience the most growth with certificate and degree programs offered by the FCS. According to the National Center for Education Statistics (NCES), the purpose of CIP codes is to "provide a taxonomic scheme that will support accurate tracking, assessment, and reporting of fields of study and program completions activity."⁵ The SOC system, on the other hand, is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.⁶

² Georgetown University's Center on Education and the Workforce, "Help Wanted: Projections of Jobs and Education Requirements through 2018." June 2010.

³ Ibid.

⁴ Corporate Voices for Working Families, "From an 'Ill-Prepared' to a Well-Prepared Workforce: The Shared Imperatives for Employers and Community Colleges to Collaborate." January 2011.

⁵ U.S. Department of Education Institute of Education Sciences, National Center for Education Statistics, <http://nces.ed.gov/pubs2002/cip2000/>

⁶ U.S. Department of Labor, Bureau of Labor Statistics, <http://www.bls.gov/soc/>



Matching Education Requirements with Existing and Growing Jobs

Part of employment in Florida involves matching individuals with jobs that are available. Having the appropriate training and education opportunities is also a key piece of the employment equation. Individuals who were displaced by the recession or whose skills sets have become obsolete can benefit through relatively short-term investments in training and education that are available through colleges in the FCS. “Middle-skill” jobs are defined as those jobs that require some education and training beyond high school (e.g., certificates or associate’s degrees) but less than a bachelor’s degree.⁷ These jobs make up approximately half of all employment today.⁸ Examples of these occupations include electricians, plumbers, technicians, dental hygienists, paralegals, machinists, police officers and fire fighters, programs available in the FCS. (See Appendix A for specific listing by broad occupation titles and college).

Exhibit 1. Agency for Workforce Innovation (AWI) Projections of “Hot” Jobs, 2010-18

Job Title	Annual Growth Rate	Annual Openings
Network Systems & Data Communication Analysts (HSHW)	5.3%	1,088
Employment, Recruitment, & Placement Specialists (HSHW)	4.6%	645
Cost Estimators** (HSHW)	4.4%	477
Physician Assistants	4.1%	168
Personal Financial Advisors	4.1%	734
Heating, Air Conditioning, & Refrigeration Mechanics	3.8%	867
Dental Hygienists (HSHW)	3.8%	339
Dental Assistants	3.6%	555
Cement Masons & Concrete Finishers**	3.5%	285
Special Education Teachers (Preschool, Kindergarten)*	3.4%	332

High Skill/High Wage (HSHW) Occupation: Mean wage of \$20.16/hour and Entry Wage of \$12.86/hour

Highlighted occupations are those for which FCS has certificate and associate degree programs linked through the SOC.

*Baccalaureate degree only

**Occupations found in declining industries and are not projected to return to their historical peak during the forecast period.

Source: Agency for Workforce Innovation, Labor Market Statistics

⁷ “The Future of Middle-Skill Jobs,” Harry J. Holzer and Robert I. Lerman, Center on Children and Families, CCF Brief #41, February 2009.

⁸ Ibid.



Exhibit 1. Agency for Workforce Innovation (AWI) Projections of “Hot” Jobs, 2010-18 (continued)

Job Title	Annual Growth Rate	Annual Openings
Special Education Teachers (Middle School)*	3.4%	137
Computer Software Engineers, Applications	3.3%	607
Market Research Analysts	3.3%	217
Drywall & Ceiling Tile Installers**	3.2%	196
Medical Assistants	3.2%	1,157
Elementary School Teachers (Exceptional Special Education)*	3.1%	2,129
Security and Fire Alarm Systems Installers	3.1%	226
Middle School Teachers (Exceptional Special & Vocational)*	3.1%	898
First-Line Supervisors/Managers of Construction Trades	3.1%	1,344
Brickmasons & Blockmasons**	3.0%	151

High Skill/High Wage (HSHW) Occupation: Mean wage of \$20.16/hour and Entry Wage of \$12.86/hour

Highlighted occupations are those for which FCS has certificate and associate degree programs linked through the SOC.

*Baccalaureate degree only

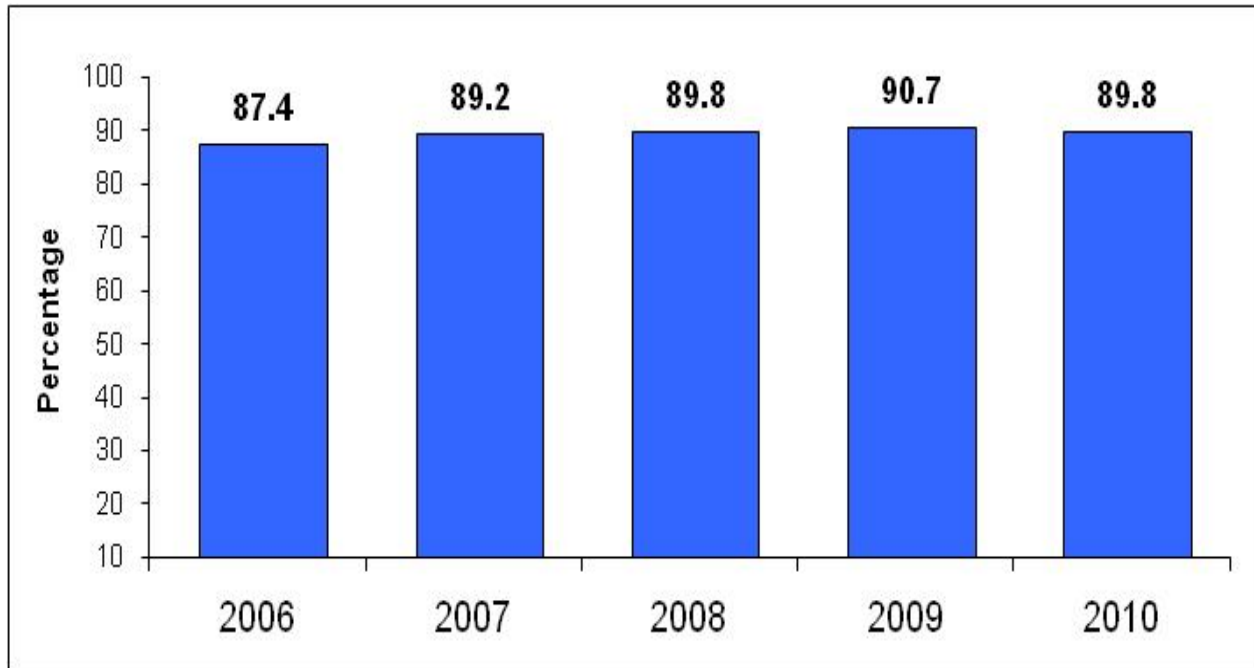
**Occupations found in declining industries and are not projected to return to their historical peak during the forecast period.

Source: Agency for Workforce Innovation, Labor Market Statistics

According to AWI’s latest projections, the 20 jobs listed in **Exhibit 1** are expected to experience growth between 2010 and 2018. **The occupations highlighted in yellow are those for which the FCS has certificate and associate degree programs linked through the SOC.** Thirteen (13) of 28 colleges in the FCS also have teacher education programs and 13 colleges have nursing programs (BSN) at the baccalaureate level. As shown, the FCS provides education and training in 16 of the 20 “hot” jobs anticipated to experience growth through 2018. Network systems and communication analysts top the list with an annual projected annual job growth rate of 5.3%. Twenty-three (23) of the 28 Florida colleges offer certificate or associate degree programs that prepare individuals for this occupation. Also noted on this chart are those jobs that are considered High Skill High Wage (HSHW) occupations. This shows that the FCS is poised to provide education and training for jobs that are growing steadily in Florida. **Appendix A** provides examples of which colleges offer programs that fall under each occupation.



Exhibit 2: Placement Rates of FCS Career and Technical Certificate Completers



Source: Division of Florida Colleges

FCS programs do result in students getting jobs, even during the recession. *Exhibit 2* shows that nearly 90% of FCS career and technical certificate program completers have been placed in jobs in fields in which they earned a certificate and has remained stable. Each year, the Division of Florida Colleges (“Division”) completes an accountability report detailing measures related to retention, success, transfer student performance, and college preparatory success rates, as required by statute (s. 1008.45, Florida Statutes). These data show the percentage of students who completed and were placed into an occupation related to their instruction (which includes the military or continuing their education).⁹ It is clear that the FCS is effective in supplying graduates who subsequently join the workforce and help the economy.

Conclusion

The examples given in this research brief show that the FCS offers a variety of programs that are responsive to the needs of Florida’s employers. Individuals can enter the FCS program for education and training and enter the workforce in a relatively short period of time. Others can come to the FCS to acquire updated and relevant workforce skills in order to obtain gainful employment. The FCS provides a number of solutions for individuals seeking preparation for the 21st century workforce.

⁹ Accountability Selection Criteria, Florida College System, Community College Technical Center MIS Annual Reports Workshop.



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Appendix A: Examples of Jobs Experiencing Growth in Florida and Florida Colleges that Offer Training in the Same Area*

Occupation Name	Network Systems & Data Comm. Analysts	Employment, Recruitment, & Placement Specialists	Personal Financial Advisors	Heating, Air Conditioning, & Refrig. Mechanics	Dental Hygienists	Dental Assistants
Brevard Community College	X	X	X	X	X	X
Broward College	X	X	X		X	X
Chipola College	X					
College of Central Florida		X	X	X		X
Daytona State College	X	X	X	X	X	X
Edison State College	X		X		X	X
Florida Gateway College		X		X		
Florida Keys Community College		X				
Florida State College at Jacksonville	X	X	X	X		X
Gulf Coast State College	X	X	X		X	X
Hillsborough Community College	X	X	X	X	X	X
Indian River State College		X	X	X	X	X
Lake-Sumter Community College	X	X				
Miami Dade College	X	X	X	X	X	

*This table represents broad occupation titles with colleges that offer relevant programs *based on the CIP to SOC linkage files* provided to the Agency for Workforce Innovation (AWI) when generating the Targeted Occupations Lists for statewide use as well as the Regional Workforce Board lists.



Appendix A: Examples of Jobs Experiencing Growth in Florida and Florida Colleges that Offer Training in the Same Area* (continued)

Occupation Name	Network Systems & Data Comm. Analysts	Employment, Recruitment, & Placement Specialists	Personal Financial Advisors	Heating, Air Conditioning, & Refrig. Mechanics	Dental Hygienists	Dental Assistants
North Florida Community College						
Northwest FL State College	X	X	X			X
Palm Beach State College	X	X	X	X	X	X
Pasco-Hernando Community College	X	X			X	X
Pensacola State College	X	X	X	X	X	
Polk State College	X	X	X			
St. Johns River State College	X		X			
St. Petersburg College	X	X	X		X	X
Santa Fe College	X	X		X	X	
Seminole State College of Florida	X	X	X	X		
State College of Florida, Manatee-Sarasota	X	X			X	
South Florida Community College	X	X	X	X	X	X
Tallahassee Community College	X	X	X		X	X
Valencia College	X	X	X		X	

*This table represents broad occupation titles with colleges that offer relevant programs *based on the CIP to SOC linkage files* provided to the Agency for Workforce Innovation (AWI) when generating the Targeted Occupations Lists for statewide use as well as the Regional Workforce Board lists.