

*Needs Assessment Report:
Financial and Professional Services*

Needs Assessment Report: Financial and Professional Services

Prepared for:

**Employ Florida Banner Center of Excellence
Career Academies/Secondary**

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Introduction

Florida has a long-standing reputation for strength in the tourism and agricultural sectors. Less well-known is the growth of a financial and professional services sector providing value-added to the statewide economy through high-skill, high-wage positions that drive overall economic prosperity. With a concentration of finance and professional services occupations as a percent of total employment in-line with the national average, Florida has established the financial and professional services industry as one of its core, target industries. Successful businesses in the finance sector are those that respond appropriately to the multifaceted challenges posed by the increasingly global economy. The large expected growth in finance-oriented occupations means that Florida must address the sector's current and future education and training needs, while adequately planning for the changes that will come with further technological advancement and globalization.

This report provides a needs assessment for career-technical education in financial and professional services in Florida. Since career-technical programs are designed to provide training for a future workforce, it is vital to know which financial and professional services jobs will be important in the future. The first section of the report highlights Florida's competitive advantage in the financial and professional services industry. Next, we provide estimates of future workforce development needs in financial services through occupational growth estimates. At this stage, we note that the Florida economy functions in concert with national and global economic forces and, as such, is potentially affected by globalization and technological progress. Therefore, in this section, we highlight the high-growth occupations most vulnerable to the forces of globalization. Then, we provide estimates of expected demand for students requiring career-technical education in this sector before providing an overview of career-technical education as it exists currently in Florida.

Financial and Professional Services in Florida

Nearly 90% of Florida's gross economic output is generated in the service sector. The state's diversified economic structure has enabled it to be a global player in the provision of high value-added services, such as Financial Services (banking, insurance) and Professional Services (legal, accounting, consulting, engineering).

Table 1 details industry employment concentrations in Florida and provides a comparison to the national economy for each sector at the two-digit North American Industry Classification System

(NAICS) code level. At the state level, retail trade contributes the largest number of jobs (11.3 percent) to the Florida workforce, as a percent of total employment. The concentration of retail trade employment is also above the national rate of 10.8 percent. Table 1 shows that employment in financial and professional services is in-line with or above the national rate, depending on which industry is considered. For example, employment in the finance and insurance sector accounts for 4.6 percent of state employment, compared to an employment concentration of 4.4 percent nationally. Employment in the professional and technical services sector and management of companies and enterprises is slightly below the national employment concentration for those sectors.

Table 1 - Employment Concentration by Sector - Florida and the U.S.

NAICS Code	Description	Florida % of total 2007	US % of total 2007
11	Agriculture, forestry, fishing and hunting	1.8%	2.1%
21	Mining	0.1%	0.5%
22	Utilities	0.2%	0.3%
23	Construction	7.6%	6.4%
31-33	Manufacturing	3.8%	8.1%
42	Wholesale trade	3.6%	3.6%
44-45	Retail trade	11.3%	10.8%
48	Transportation and warehousing	3.3%	3.6%
51	Information	1.8%	2.0%
52	Finance and insurance	4.6%	4.4%
53	Real estate and rental and leasing	5.6%	4.0%
54	Professional and technical services	6.4%	6.7%
55	Management of companies and enterprises	0.8%	1.0%
56	Administrative and waste services	10.5%	6.3%
61	Educational services	1.5%	2.1%
62	Health care and social assistance	9.8%	10.3%
71	Arts, entertainment, and recreation	2.7%	2.1%
72	Accommodation and food services	7.4%	6.8%
81	Other services, except public administration	6.3%	5.7%
90	Government	10.9%	13.2%

Source: Economic Modeling Specialists, Inc.

Table 2 shows employment and earnings (ranked by number of workers) for each sector at the two-digit NAICS code level. The finance and insurance sector, the professional and technical services sector and management of companies and enterprises provide almost 1.3 million jobs to the Florida workforce. Table 2 also illustrates that jobs in the financial sectors are typically high-wage jobs. These positions have average earnings in each sector above the state average, and average earnings in management of companies and enterprises at almost \$100,000.

Table 2 - Employment and Earnings, by Sector - Florida

NAICS Code	Description	2007 Jobs	Percent of total	Earnings per Worker
44-45	Retail trade	1,210,594	11.3%	\$29,650
90	Government	1,171,992	10.9%	\$55,491
56	Administrative and waste services	1,123,514	10.5%	\$28,367
62	Health care and social assistance	1,051,026	9.8%	\$44,250
23	Construction	817,283	7.6%	\$46,862
72	Accommodation and food services	788,359	7.4%	\$22,240
54	Professional and technical services	690,833	6.4%	\$56,986
81	Other services, except public administration	674,965	6.3%	\$21,523
53	Real estate and rental and leasing	598,503	5.6%	\$36,372
52	Finance and insurance	487,865	4.6%	\$66,390
31-33	Manufacturing	404,880	3.8%	\$62,420
42	Wholesale trade	389,344	3.6%	\$63,225
48	Transportation and warehousing	350,540	3.3%	\$49,673
71	Arts, entertainment, and recreation	293,949	2.7%	\$31,024
51	Information	194,481	1.8%	\$64,999
11	Agriculture, forestry, fishing and hunting	190,123	1.8%	\$18,911
61	Educational services	162,145	1.5%	\$29,404
55	Management of companies and enterprises	82,113	0.8%	\$96,527
22	Utilities	25,293	0.2%	\$129,764
21	Mining	11,619	0.1%	\$60,784

Source: Economic Modeling Specialists, Inc.

Narrowing the focus to occupations within the financial and professional services industry, Table 3 illustrates that Architectural and engineering services, management and technical consulting, legal services, and other professional and technical services contribute the most jobs in the industry, with all providing a greater concentration of employment within this sector relative to the national average.

Table 3 - Employment Concentration, by Occupation - Florida

NAICS Code	Description	Florida % of total 2007	US % of total 2007
5211	Monetary authorities - central bank	0.1%	0.1%
5221	Depository credit intermediation	8.0%	8.0%
5222	Nondepository credit intermediation	5.2%	3.7%
5223	Activities related to credit intermediation	2.6%	1.8%
5231	Securities and commodity contracts brokerage	4.0%	4.3%
5232	Securities and commodity exchanges	0.0%	0.1%
5239	Other financial investment activities	4.3%	4.5%
5241	Insurance carriers	6.0%	6.1%
5242	Insurance agencies, brokerages, and related	7.7%	6.3%
5251	Insurance and employee benefit funds	0.4%	0.6%
5259	Other investment pools and funds	0.4%	0.6%
5411	Legal services	9.3%	7.6%
5412	Accounting and bookkeeping services	6.7%	7.0%
5413	Architectural and engineering services	9.4%	8.6%
5414	Specialized design services	1.9%	1.7%
5415	Computer systems design and related services	6.7%	8.8%
5416	Management and technical consulting services	8.1%	7.4%
5417	Scientific research and development services	1.2%	3.3%
5418	Advertising and related services	2.8%	3.1%
5419	Other professional and technical services	8.8%	7.9%
5511	Management of companies and enterprises	6.5%	8.3%

Source: Economic Modeling

Table 4 shows that many of the occupations contributing to state level employment are high-wage positions, adding value to the regional economy, with most occupations commanding average annual incomes above \$50,000.

Table 4 - Employment and Earnings, by Occupation - Florida

NAICS Code	Description	2007 Jobs	Percent of total	Earnings per Worker
5413	Architectural and engineering services	118,739	9.4%	\$61,557
5411	Legal services	116,827	9.3%	\$66,948
5419	Other professional and technical services	110,505	8.8%	\$42,551
5416	Management and technical consulting services	102,140	8.1%	\$61,030
5221	Depository credit intermediation	100,835	8.0%	\$59,222
5242	Insurance agencies, brokerages, and related	96,751	7.7%	\$53,031
5412	Accounting and bookkeeping services	84,223	6.7%	\$40,510
5415	Computer systems design and related services	84,029	6.7%	\$72,424
5511	Management of companies and enterprises	82,113	6.5%	\$96,527
5241	Insurance carriers	75,798	6.0%	\$69,346
5222	Nondepository credit intermediation	65,041	5.2%	\$75,791
5239	Other financial investment activities	54,027	4.3%	\$65,685
5231	Securities and commodity contracts brokerage	50,851	4.0%	\$93,426
5418	Advertising and related services	35,849	2.8%	\$51,755
5223	Activities related to credit intermediation	32,662	2.6%	\$61,750
5414	Specialized design services	23,948	1.9%	\$38,871
5417	Scientific research and development services	14,573	1.2%	\$73,661
5251	Insurance and employee benefit funds	5,178	0.4%	\$52,907
5259	Other investment pools and funds	5,173	0.4%	\$66,773
5211	Monetary authorities - central bank	973	0.1%	\$47,795
5232	Securities and commodity exchanges	578	0.0%	\$89,351

Source: Economic Modeling

Overall, Florida has a relatively high concentration in financial and professional services employment, providing high-wage occupations that drive economic growth and prosperity.

Companies operating in the financial and professional services sector are located throughout the state. Figure 1 provides a cluster map, locating each firm within the state. Clusters are apparent along the east and west coast of Florida, the I-4 corridor, and northwest Florida.

Figure 1 - Florida Finance and Professional Services Cluster Map

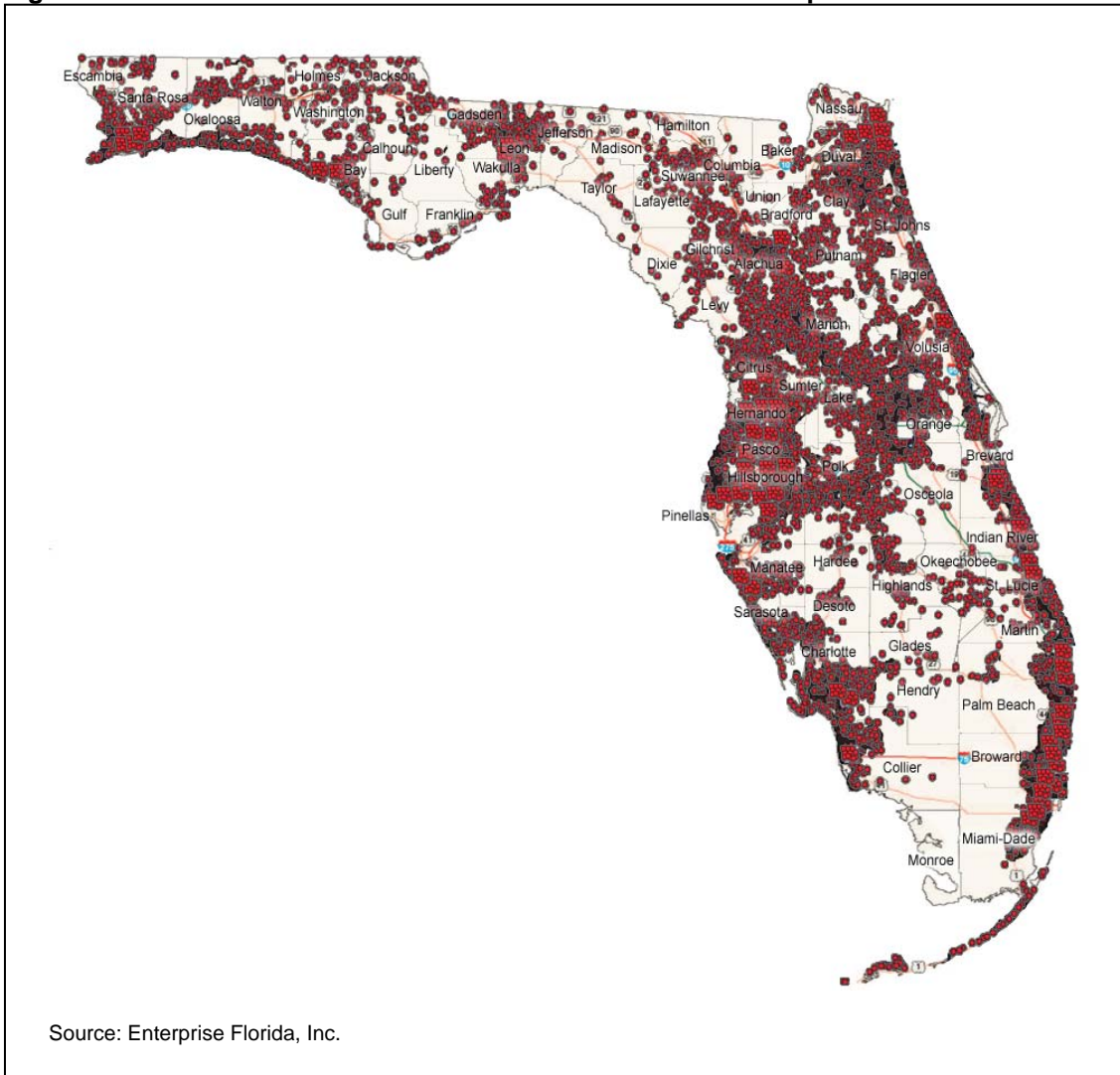
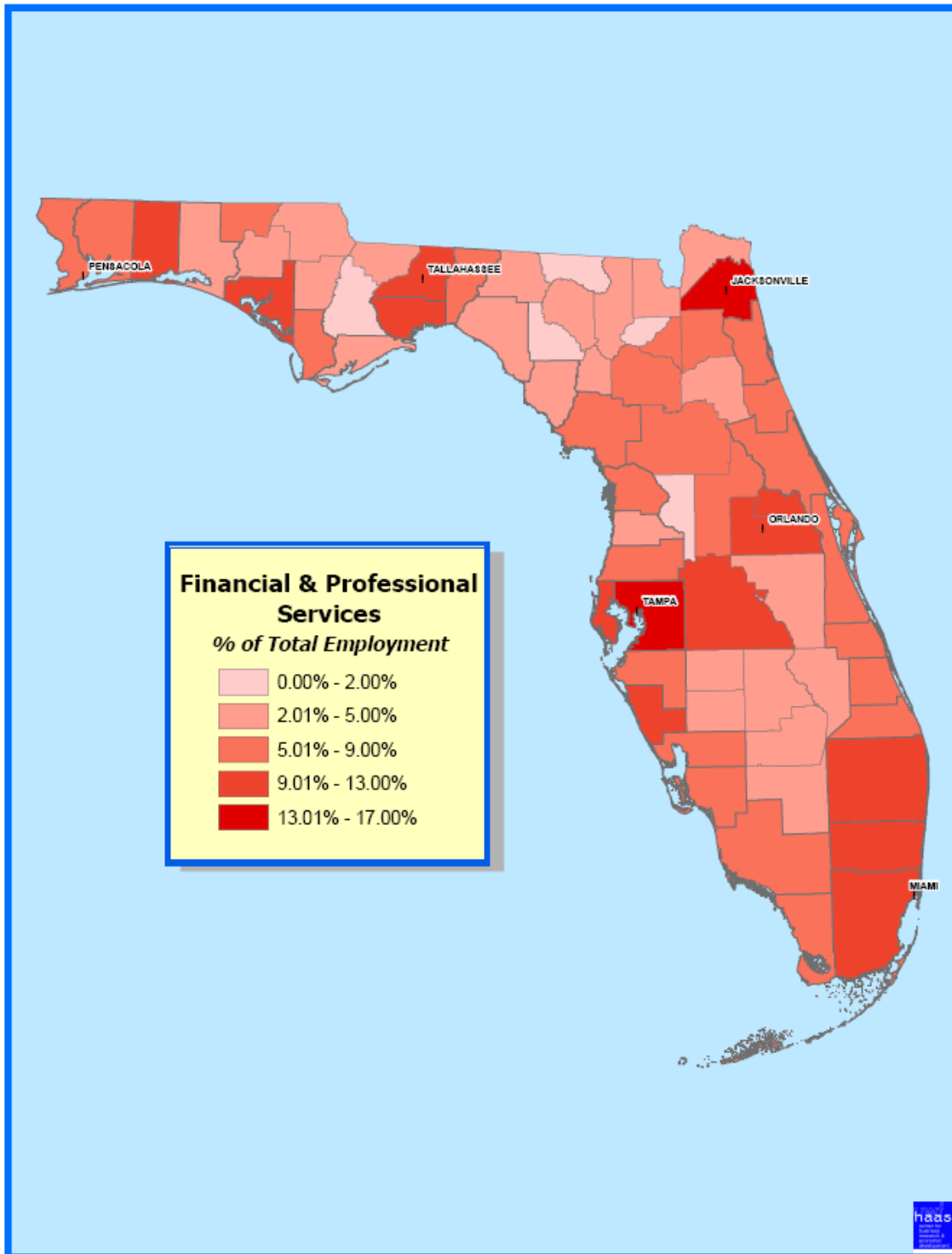


Figure 2 shows employment concentrations in the financial and professional services industry, by county, indicating the counties in Florida with the highest concentrations of employment in this sector as a percentage of total county employment.

Figure 2 - Florida Finance and Professional Services Employment Concentrations



Source: Haas Center

Figure 2 shows that the highest concentration of financial and professional services employment occurs in the counties of Duval and Hillsborough, around the cities of Jacksonville and Tampa, each contributing between 13 to 17 percent of county employment. The I-4 corridor, southeast and northwest Florida also exhibit high concentrations of financial and professional services employment.

The Changing Structure of the U.S. Economy

Over time, the U.S. and other industrialized nations have faced significant structural shifts in their economies. The latest impact comes in the form of globalization. Essentially, the economy is entering its third industrial revolution as the cheap and easy flow of information around the world expands the scope of tradable services. As with previous industrial revolutions, the latest major economic shift creates opportunities and challenges alike, requiring a change in government and business practices, and importantly for this report, education.

At the same time as it creates new jobs in export-oriented U.S. businesses, increased trade flows pose a significant threat to U.S. firms not only in domestic import-competing businesses, but also more broadly through the offshoring of jobs. Offshoring is the migration of economic activity, but not the people that perform them, typically from rich countries to poor. While international trade, and the offshoring that results, almost certainly provides an overall net benefit to society, the redistributive effects created by rapid changes in job location creates cause for concern. One leading economist, Alan Blinder (2007)¹, a professor of economics at Princeton University, believes that there could be highly significant consequences from offshoring, and that as constant technological change and global communications guarantees continued and even increased rates of offshoring, the current impact of offshoring on jobs lost in wealthier nations is merely the tip of the iceberg.

A critical component of a needs assessment for financial and professional services is to forecast expected growth in occupational demand within the industry. However, as Blinder estimates that between 30 and 40 million U.S. jobs could be lost to the forces of globalization, the impact of offshoring on occupational demand also needs consideration.

Blinder argues that globalization has changed the critical labor market divide away from low-skill versus high-skill occupations. Globalization and technological advancement means that the

¹ Blinder, A.S., "How Many U.S. Jobs Might Be Offshorable?" *Working Paper*, Center for Economic Policy Studies, Princeton University, March, 2007.

essential divide today is between “impersonal” occupations providing services that can be delivered electronically, without face-to-face contact between the parties, and “personal” jobs, requiring services that require face-to-face contact. To highlight the shift, it is unlikely that a bank teller or cost estimator occupation will be delivered electronically over distance. The former is a low-skill profession while the latter is typically regarded as a high-skill occupation but they are both “personal services” in which face-to-face contact is required. The divide therefore is not the level of skill but its ability to be provided electronically. Conversely, a customer service representative (typically seen as low-skill) and data systems analysis (high-skill) are occupations that are already being delivered electronically. These are essentially impersonal services that have different attributes to face-to-face services.

As the forces of globalization change the labor-market divide, requirements for education will change accordingly. The threat posed by globalization means educational programs emphasizing how much children should be educated will be increasingly replaced by how they are educated.

In an attempt to qualify which occupations are most vulnerable to globalization, Blinder creates a two-digit “offshorability” ordinal index number for 817 occupations, ranking each occupation from most-offshorable to least. Blinder uses the O*NET database to analyze each occupation. O*NET is an online service developed for the U.S. Department of Labor and serves as the primary source of occupational information. Information is gathered for the database through surveys of workers in each occupation and is consistently updated. For most occupations, O*NET provides a description of the occupation and detailed descriptive information regarding the nature of the occupation. The description covers attributes such as tasks typically performed in that occupation (e.g. collect and analyze data), skills required (e.g. time management), abilities needed to perform the job (e.g. oral expression), work context (e.g. face-to-face discussion), and others. To rank each classification, first, Blinder places each occupation into one of four classifications; highly offshorable, offshorable, non-offshorable, and highly non-offshorable. An offshorability index is then assigned based on the tasks and work activities specific to the occupation.

Financial and Professional Services Occupational Growth Forecasts

Table 5 provides occupational forecasts for the financial and professional services industry through 2014, including average hourly earnings, educational requirements, and the Blinder Index where applicable². The analysis also cross-references high-growth occupations with the O*NET

² The absence of a Blinder Index associated with a particular occupation indicates that, based on the Blinder (2007) model, the occupation is not considered a threat from globalization.

database to examine the skills and tools that correlate most with high-growth occupations. This provides a more comprehensive analysis of the key attributes, such as types of tools, skills, education, and knowledge required to function in each occupation, which in turn provides additional insight into the need for career-technical education and the industry recognized certifications that will provide the most value-added with respect to future occupational demand in the financial and professional services industry.

To identify all financial services-related occupations, all business and financial operations occupations are included, plus other financial services-oriented classifications that support various financial services industries in Florida³, such as bookkeeping/accounting. It should be noted that across occupations, not all expected growth will be directly attributable solely to the financial services industry. For example, as Table 5 shows, demand for customer services representatives is expected to increase by over 38,000 jobs through 2014, a proportion of which will be required in financial services, with more demand coming from other industries.

Table 5 shows strong growth in a number of financial services-oriented occupations through 2014. The top four growth occupations are expected to add over 85,000 jobs over this period. Further, business operations specialists, bill and account collectors, personal financial advisors, and customer service representatives are all expected to yield above 3 percent increases in jobs, year-on-year through 2014.

³ See "Florida Financial Services, 2004 Cluster Report." The Florida Agency for Workforce Innovation.

Table 5 - Occupation Growth for Financial and Professional Services (2006-2014)

Occ Code		Employment			Annual % Change	Avg. Hourly Wage (\$2006)	Educ Code	Blinder Index
		2006	2014	New Jobs				
434051	Customer Service Representatives	155,861	194,576	38,715	3.1	13.3	3	94
434171	Receptionists and Information Clerks	83,759	101,422	17,663	2.6	10.6	2	75
433031	Bookkeeping, Accounting, and Auditing Clerks	145,679	160,877	15,198	1.3	14.3	4	84
131199	Business Operations Specialists, All Other	52,337	66,641	14,304	3.4	28.0	4	
132011	Accountants and Auditors	77,770	91,653	13,883	2.2	27.5	4	72
433011	Bill and Account Collectors	28,657	36,235	7,578	3.3	14.5	2	65
131111	Management Analysts	45,355	52,657	7,302	2.0	37.3	5	
433071	Tellers	34,245	40,126	5,881	2.2	11.2	2	
132052	Personal Financial Advisors	15,545	19,419	3,874	3.1	34.7	4	
131051	Cost Estimators	16,872	20,664	3,792	2.8	25.1	4	
132072	Loan Officers	22,641	26,407	3,766	2.1	27.1	4	
131031	Claims Adjusters, Examiners, and Investigators	17,655	21,360	3,705	2.6	22.3	3	
113031	Financial Managers	19,633	23,150	3,517	2.2	45.6	4	75
131071	Employment, Recruitment, and Placement Specialists	13,076	16,524	3,448	3.3	21.0	4	
434111	Interviewers, Except Eligibility and Loan	13,102	15,989	2,887	2.8	11.7	2	48
131079	Human Resources, Training, & Labor Relations Specialists, All Other	11,393	14,187	2,794	3.1	23.3	5	
433051	Payroll and Timekeeping Clerks	11,785	14,439	2,654	2.8	14.7	2	
131073	Training and Development Specialists	12,141	14,748	2,607	2.7	22.7	5	
434161	Human Resources Assistants, Exc. Payroll	10,630	12,851	2,221	2.6	14.7	2	50
434081	Hotel, Motel, and Resort Desk Clerks	16,383	18,545	2,162	1.7	9.5	2	
434131	Loan Interviewers and Clerks	19,229	21,117	1,888	1.2	15.6	3	46
131023	Purchasing Agents, Except Farm Products & Trade	14,296	16,119	1,823	1.6	23.0	4	55
433021	Billing and Posting Clerks and Machine Operators	31,331	33,124	1,793	0.7	13.5	2	90
132051	Financial Analysts	7,216	8,746	1,530	2.7	31.9	4	76

Source: [Labormarketinfo.com](http://labormarketinfo.com)

Table 5 also illustrates that of the financial services occupations expected to add the most jobs through 2014, the majority of occupations are considered high-skill, high-wage positions, requiring a level of education beyond a high school diploma (Education Code 2) and offering hourly wages well above the state average. For example, business operations specialists, accountants and auditors, and management analysts all command average hourly rates of \$27 per hour or more, requiring a vocational certificate, college credit certificate, applied technology diploma, associates degree, or beyond.

Cross-referencing with the Blinder Index indicates that that five of the top six growth occupations are considered vulnerable to offshoring based on the Blinder index, of which some positions are classified as “highly offshorable,” receiving a ranking of 76 or greater. Customer services representatives, receptionists, and bookkeeping/accountants are all occupations considered highly vulnerable to offshoring. This highlights the critical divide in today’s workforce as these are all “impersonal” occupations, requiring little face-to-face contact and so, are most under threat to the challenges posed by globalization.

Cross-referencing with O*NET data and examining the largest growth occupations, certain tasks, abilities, and technology skills are common. As expected, the ability to analyze data is a critical component of many of the highest growing financial services occupations, as is the ability to disseminate information to clients and co-workers. Further, working knowledge of computer software programs is also prevalent. Beyond knowledge of software applications specific to the occupation (such as IBM cost estimator for cost estimators), working knowledge of Microsoft packages is emphasized in many of the occupations listed (for example, accountants/auditors, cost estimators, personal financial advisors, bill and account collectors, customer service representatives, and more). This suggests that there are “spillover effects” from increased demand for financial services occupations due to the importance of information technology training within the financial services industry as a significant proportion of high-growth occupations require a working knowledge of Microsoft and other software packages. As such, growth in financial services occupations drives demand for students with a finance training background throughout the state, but will also drive additional demand for workers with an information technology background.

Table 5 suggests that 47,266 jobs are expected to be added in financial and professional services through 2014 that specifically require a vocational certificate (Education Code 3). However, as discussed, many occupations are expected to be subject to foreign competition, and as such, expected growth in the “vulnerable” occupations, specifically customer service representatives,

can be regarded as an upper bound estimate as the impersonal nature can lead to further offshoring threats.

Overall, while the threat of globalization is apparent in job growth in the financial and professional services industry, the changing structure of the economy has moved the critical labor market divide from low-skill/high-skill, to personal/impersonal occupations. As a result, local and regional governments and education planners must address the complex nature and “multifaceted challenges” that offshoring creates. One of the major components that must be addressed is for local and regional governments and education planners to provide an education system that adequately prepares workers for the jobs that will actually exist in their respective societies. Blinder argues that the most acute need is to estimate how to educate children today to meet the demand for jobs in the future. However, as education no longer centers on the distinction between high-skill and low-skill work, he suggests that simply providing more education is not sufficient. Rather, as rapid technological change continues to drive demand for education beyond the high school level, a significant proportion of the fastest-growing occupations require vocational education or industry recognized certifications. Career-technical education has therefore, a critical role to play in training and educating students in finance to supply the workforce with future workers equipped with the requisite skill sets that will drive economic development throughout the state.

Career technical Education in Florida

Vocational education across the United States, as well as within the state of Florida, has transitioned from its practical agricultural and manufacturing foundations into potentially high-tech, high-skill programs training workers in the most innovative areas of the economy. Specifically, in the state of Florida, vocational education programs have developed through career academies in the areas ranging from the culinary arts and construction to aerospace and information technology. Career academies are defined by national education organizations according to a series of common core elements. The Florida Department of Education, consistent with these national guidelines, characterizes career academies as having three common core elements:

- 1) ‘a small learning community comprised of a subset of students within a larger high school;
- 2) ‘a college preparatory curriculum with a career theme;
- 3) ‘partnerships with the local community employers and higher education institutions (OPPAGA Report No. 06-05 2007, 2).

Of 544 programs in Florida, 462 responded to the portion of an OPPAGA survey gauging compliance with the Florida Department of Education's career academy core elements. According to the report, "over one-half of the programs (193 or 51 percent) reported implementing all three of the nationally recognized career academy core elements" (OPPAGA Report No. 06-55 2007, 5). A further 128 (34 percent) reported compliance with at least two of the core elements and 52 (14 percent) implemented only one of the core elements. Although there are a substantial number of career academies in the state, very little exists in the way of structure for these programs. However, with the passage of Senate Bill 1232 mandating career academy programs across the state and the development of several model programs, career academies have the potential to flourish.

Of particular importance to the development of Florida's career academies is the Okaloosa County's CHOICE program. This program, coupled with best practices from the two other "model" programs in counties around the state (Sarasota and Manatee's Suncoast Tech Prep Program and Palm Beach's Career Academies) will inform the implementation of the requirements of Senate Bill 1232. Senate Bill 1232 became law in June 2007 and will require student access to career academies similar to CHOICE in every Florida county by the 2008-09 school year.

The legislation is designed to establish career academies which meet and exceed current national and state guidelines and which are relevant to local and state workforce needs and, to that end, includes several key components. First, the legislation requires each district, at the outset, to develop jointly, in conjunction with local workforce boards and state-approved postsecondary institutions, a five year plan to determine workforce needs for the ensuing five years. Second, the bill requires that *all* career courses lead either to industry certification or college credit that can be linked directly to that particular career theme. Third, the bill provides for a review process of all new career academy courses that are proposed as core courses for the purpose of high-school graduation. Fourth, the bill establishes an outside review process for all vocational education programs in the state. Finally, Senate Bill 1232 establishes a funding mechanism for career academies across the state.

Most importantly, the mandate established in Senate Bill 1232 appears to be flexible enough to allow career academies to develop, within the broadest possible framework, in the business and education environments that they serve. Thus a career academy in one part of the state established around the finance and professional services industry in partnership with a local

college or university may be radically different from a career academy established around the healthcare industry in another portion of the state. Academies meeting the base standards established in Senate Bill 1232 will be able to flourish in nearly any arena.