# Future/Makers Coalition

# Southwest Florida Workforce Overview Study 2018



September 2018
Prepared by the Research Team:







Johnson School of Business



Regional Economic Research Institute Lutgert College of Business



#### **Report Information**

This report is conducted annually by *Workforce Now*, a regional research initiative conducted by Southwest Florida's leading research institutions. The lead researchers of *Workforce Now* are grateful to the many individuals whose help and input make their work possible.

Preliminary drafts of this document were created by the Regional Economic Research Institute at Florida Gulf Coast University, which studies, analyzes, and reports on the regional economy encompassing Collier, Lee, Charlotte, Hendry, and Glades counties. Established in 2005, it serves as a public service and economic development unit of the Lutgert College of Business and strives to connect Southwest Florida to the resources of Florida Gulf Coast University.

Later drafts of this document were vetted and put into final format by researchers at Hodges University and Florida Southwestern State College, both of which maintain campuses in the five-county region, serving over 23,000 students and are active in workforce initiatives in Southwest Florida.

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#### **PREFACE**

Workforce Now is a regional research initiative to identify current and future talent requirements for the five counties of Southwest Florida. The initiative was created in October 2012 as an outcome of discussions following the Education Summits produced by The News-Press Media Group. It is envisioned as a systematic, strategic multi-year focus on understanding and meeting critical workforce needs.

The initiative is designed to provide better information on workforce gaps including skills, knowledge, and characteristics desired by regional employers. The plan is to provide a continuous stream of labor force information to employers and educational institutions and to look for ways to create dialogue and new partnerships between businesses and educational institutions. The quality of the regional workforce is a primary competitive factor in the region's ability to grow and prosper in a global marketplace.

This report is an annual overview of the Southwest Florida labor market that identifies the mix of industries, the industry growth trends, current employment gaps, and the average annual projected demand for regional occupations through 2025. It also defines the size of the regional employment gaps and identifies areas for further research. This information will help students, parents, businesses, and educators make more informed decisions about careers, employees, and programs.

This project and report would not be possible without the assistance of the Florida Department of Economic Opportunity and the generous support of the founding Workforce Now investors:

- The News-Press Media Group
- Partnership for Collier's Future Economy Opportunity Naples
- The Lee County Industrial Development Authority
- The Southwest Florida Workforce Development Board
- Arthrex, Inc.
- Busey Bank
- Chico's FAS, Inc.
- Florida Gulf Coast University
- Florida SouthWestern State College
- Hodges University
- Manhattan Construction

The authors would like to thank Sarah Owen, President and CEO of the Southwest Florida Community Foundation, for leading this effort, and to Peg Elmore and her colleagues at CareerSource Southwest Florida for their help in collecting much of the data found in this report. We also thank CareerSource Florida Chief Economist Aaron Schmerbeck for helpful advice. We would also like to acknowledge Mei-Mei Chan, the former President and Publisher of the News-Press Media Group, whose past leadership helped shape Workforce Now into such an important ongoing research effort, and Dr. Gary Jackson, whose contributions to previous Workforce Overview studies continue to influence this project. Florida Gulf Coast University, Florida SouthWestern State College, and Hodges University provided the research leadership and staff to complete this fourth Workforce Now annual overview report.

The views expressed in the report and any errors contained are those of the authors and not of the institutions or companies that supported or participated in the Workforce Now project. The Workforce Now Reports are available at www.fgcu.edu/cob/reri/wfn/.

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#### **EXECUTIVE SUMMARY**

This is the sixth annual Southwest Florida workforce overview study providing key information about industries, occupations, employment gaps, and projected job growth. The study is divided into three major sections:

- ✓ Historic, current, and projected employment by industry
- ✓ Employment gaps by occupation as of Summer 2018
- ✓ Projected employment demand by occupation

This information can be used by key stakeholders throughout the region to define the size of the regional employment gaps. In addition, the information will help students, parents, businesses, and educators make more informed decisions about careers, employees, and programs. Finally, the study helps researchers target future areas of investigation that will be needed to identify the regional specific skills, tasks, knowledge, abilities, and work activities for the occupational gaps identified by this study.



The study began in the summer of 2018 and was completed by the end of August of that year. Primary data collection and analysis were conducted by Dr. Christopher Westley and the Regional Economic Research Institute at Florida Gulf Coast University. The predominant source of workforce data for the study was the Florida Department of Economic Opportunity. Final report development, editing, and formatting were supported by the Workforce Now team. The Southwest Florida region is defined as Charlotte, Collier, Glades, Hendry, and Lee Counties.

#### Historic, Current, and Projected Employment by Industry

- As the economic expansion is now the second-longest on record, employment and unemployment rates in Southwest Florida have reached levels associated with their normal long-term values;
- Southwest Florida has 573,482 employed workers in 2017, compared to 9.68 million employed in Florida and 153.34 million for the nation;
- The average annual Southwest Florida wage is \$42,114 in 2017, compared to \$47,779 for Florida and \$55,331 for the nation;
- The largest industries by employment in 2017 are retail trade (18.5 percent, down from 18.6 percent last year), accommodation and food services (15.6 percent, up from 15.3 percent last year), health care and social assistance (13.9 percent, unchanged from last year), construction (11.7 percent, up from 11.4 percent last year), and administrative and waste services (7.4 percent, down from 7.5 percent last year);
- The largest industries by wage income in 2017 are health care and social assistance (17 percent, down from 17.2 percent last year), retail trade (13.3 percent, down from 13.5 percent last year), construction (12.7 percent, up from 12.2 percent last year), professional and technical services (8.7 percent, unchanged from last year), and accommodation and food services (8.4 percent, up from 8.3 percent last year);
- The fastest growing industries between 2013 and 2017 as measured by employment are construction (15,976, or 52.4 percent increase from 2013), accommodation and food services (10,354, or 20.1 percent increase from 2013), retail trade (8,855, or 13.8 percent increase from 2013), health care and social assistance (7,174, or 15 percent increase from 2013), and administrative and waste services (6,360, or 27.5 percent increase from 2013);
- The slowest growth industries from 2013 to 2017 have been agriculture, forestry, fishing, and hunting (-2,277, or 18.6 percent decline from 2013), management of companies and enterprises (-889, or 22.7 percent decline from 2013), information (-308,







- or 6.2 percent decline from 2013), utilities (-26, or 2.2 percent decline from 2013), and mining, quarrying, and oil and gas extraction (129, or 61.4 percent increase from 2013);
- The fastest growth industries between 2017 and 2025 are projected to be health care and social assistance adding 1,673 jobs per year, retail trade adding 1,256 jobs per year, construction adding 1,012 jobs per year, accommodation and food services adding 790 jobs per year, and self-employed and unpaid family workers adding 659 jobs per year.

# Historic, Current, and Projected Employment by Industry

Cohecami	In ducation / Docation	D.C. atuit	Annual Charge	Developt Change
Category	Industry/Region	Metric	Annual Change	Percent Change
Employed Workers, 2017	Southwest Florida	573,482	13,575	2.4%
	• Florida	9.7 Million	0.3 Million	3.3%
	United States	153.3 Million	1.9 Million	1.3%
Annual Wages, 2017	Southwest Florida	\$42,114	\$1,243	3.0%
	• Florida	\$47,779	\$1,433	3.1%
	United States	\$55,331	\$1,816	3.4%
Largest Industries by	Retail Trade	73,250	827	1.1%
Employment, 2017	Accommodation and Food Services	61,843	2,128	3.6%
	Health Care and Social Assistance	55,033	939	1.7%
	Construction	46,463	2,115	4.8%
	Administrative and Waste Services	29,457	158	0.5%
Largest Industries by Wages,	Health Care and Social Assistance	\$2.8 Billion	\$0.1 Billion	3.3%
2017	Retail Trade	\$2.2 Billion	\$0.1 Billion	3.3%
	• Construction	\$2.1 Billion	\$0.2 Billion	9.1%
	Professional and Technical Services	\$1.4 Billion	\$0.1 Billion	4.1%
	Accommodation and Food Services	\$1.4 Billion	\$0.1 Billion	5.8%
Fastest Growing Industries by	Construction	15,976	-115	
Employment, 2013 to 2017 <sup>a</sup>	Accommodation and Food Services	10,354	-956	
. , ,	Retail Trade	8,855	-1,437	
	Health Care and Social Assistance	7,174	-353	
	Administrative and Waste Services	6,360	-1,071	
Slowest Growing Industries by	Agriculture, Forestry, Fishing and Hunting	-2,277	-1,254	
Employment, 2013 to 2017 <sup>a</sup>	Management of Companies and Enterprises	-889	-361	
• •	• Information	-308	-280	
	• Utilities	-26	-16	
	Mining, Quarrying, and Oil and Gas Extraction	129	-28	
Fastest Projected Growing	Health Care and Social Assistance	1,673	231	
Industries by Employment,	Retail Trade	1,256	-18	
2017 to 2025 <sup>b</sup>	• Construction	1,012	-60	
	Accommodation and Food Services	, 790	-198	
	Self-Employed and Unpaid Family Workers	659	-67	

a Annual change compared to fastest/slowest growing industries by employment, 2012 to 2016 estimates.







b Annual change compared to fastest projected growing industries by Employment, 2016 to 2024 estimates.

Top 10 Short-Term Employment Gaps Summer 2018					
Occupation	Current Supply Gap	Current Employment	Median Wage	Minimum Education	
First-Line Supervisors of Retail Sales Workers	-385	8,160	\$20.10	PS Adult Voc	
Retail Salespersons	-379	24,294	\$11.15	HS/GED	
Maintenance and Repair Workers, General	-262	5,694	\$17.27	PS Adult Voc	
First-Line Supervisors of Food Preparation and Serving Workers	-223	4,565	\$16.31	PS Adult Voc	
Landscaping and Groundskeeping Workers	-167	14,003	\$11.96	Less HS/GED	
First-Line Supervisors of Construction Trades and Extraction Workers	-156	4,772	\$27.50	Some College	
First-Line Supervisors of Office and Administrative Support Workers	-152	5,072	\$25.03	Some College	
Customer Service Representatives	-120	9,073	\$14.41	PS Adult Voc	
Maids and Housekeeping Cleaners	-105	5,833	\$11.08	Less HS/GED	
Stock Clerks and Order Fillers	-98	7,917	\$12.12	HS/GED	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

# **Current Employment Gaps by Occupation**

The Florida Department of Economic Opportunity study/data identified 6,578 current employment gap positions for Southwest Florida, signifying a 30-percent increase (or 1,505 positions) compared to the figure reported in the Workforce Overview Study for 2017.

The top 10 employment gaps where demand is estimated to be greater than supply are shown in the table above. These include retail supervisors, retail salespersons, maintenance and repair workers, supervisors for food preparation and serving, landscaping and groundskeepers, construction trades supervisors, administrative supervisors, customer service representatives, maid and housekeeping cleaners, and stock clerks and order fillers. The median wage varies from \$11.08 per hour to \$27.50 per hour.

- First-line supervisors of retail salespersons had highest employment gap of -385. On average, each 10 jobs filled are worth an additional \$402,300 in income;
- Retail salespersons had the second highest employment gap of -379. On average, each 10 jobs filled are worth an additional \$223,000 in income;
- Maintenance and repair workers made up the next highest employment gap of -262. On average, for each 10 jobs filled, income would rise by \$345,400;
- First-line supervisors of food preparation and serving workers employment gap was -223. For each 10 positions filled, \$326,200 in additional income is earned;
- Landscaping and groundskeeping workers employment gap was -167. For each 10 positions filled, income would rise by \$239,200;
- First-line supervisors of construction trades and extraction workers employment gap was -156. On average, each 10 jobs filled would raise income by \$550,000;
- First-line supervisors of office and administrative support workers employment gap came next, registering -152. For each 10 vacancies filled, additional income of \$500,600 would be generated;
- The employment gap for customer service representative occupations registered -120 positions in the present study. For each 10 job vacancies filled, additional income of \$288,200 would be generated;
- Another occupational group is maid and housekeeping cleaners. The study identified an employment gap of -105. On average, for each 10 job vacancies filled, additional income of \$221,600 would be generated;







- Rounding out the top 10 employment gaps were stock clerk and order filler occupations. The study found an employment gap of -98. For each 10 job vacancies filled, additional income of \$242,400 would be generated.
- Other employment gaps were found in health service managers, financial service sales agents, security guards, physical therapists, accountants, hotel and resort desk clerks, first-line supervisors of mechanics, wholesale and manufacturing sales representatives, carpenters, and first-line supervisors of transportation machine and vehicles.

# **Projected Employment Demand by Occupation**

The top 10 projected high demand regional growth occupations for 2017 to 2025 are shown in the following table. The top growth occupation is retail salespersons with an average annual demand for 4,355 employees per year. This is followed by waiters and waitresses at 3,477 employees per year, cashiers at 3,154 employees per year, food preparation and serving workers at 2,544 employees per year, and landscaping and groundskeeping workers at 2,022 employees per year.

The next five highest occupations in demand are customer service representatives, office clerks, secretaries and administrative assistants, restaurant cooks, and construction laborers.

Top 10 Long-Term Growth Occupations 2017 to 2025					
Occupation	Average Annual Growth	Current Employment	Median Wage	Minimum Education	
Retail Salespersons	4,355	24,294	\$11.15	HS/GED	
Waiters and Waitresses	3,477	17,102	\$9.88	Less HS/GED	
Cashiers	3,154	15,635	\$9.38	HS/GED	
Combined Food Preparation and Serving Workers, Including Fast Food	2,544	11,812	\$9.65	Less HS/GED	
Landscaping and Groundskeeping Workers	2,022	14,003	\$11.96	Less HS/GED	
Customer Service Representatives	1,376	9,073	\$14.41	PS Adult Voc	
Office Clerks, General	1,351	10,290	\$13.76	HS/GED	
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,348	11,212	\$15.92	PS Adult Voc	
Cooks, Restaurant	1,302	7,460	\$13.31	PS Adult Voc	
Construction Laborers	1,220	9,080	\$14.11	Less HS/GED	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

# **Projected Fastest-Growing Occupations by Minimal Education Requirement**

The study finally looked at long-run occupational growth by identifying the fastest-growing occupations by the minimal educational requirement including:

- Post-Secondary Adult Vocational
- Some College
- Bachelor's Degree
- Master's Degree
- Doctorate







#### **Post-Secondary Adult Vocational**

The top projected adult vocational education growth occupations are shown in the following table. These represent positions in sales, construction, food preparation, administrative support, healthcare, and maintenance and are expected to grow between 555 and 1,376 positions for each year from 2017 to 2025.

Top 10 Adult Vocational Growth Occupations					
2017 to 2025	Average Annual	Current	Median		
Occupation	Growth	Employment	Wage		
Customer Service Representatives	1,376	9,073	\$14.41		
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,348	11,212	\$15.92		
Cooks, Restaurant	1,302	7,460	\$13.31		
First-Line Supervisors of Retail Sales Workers	1,022	8,160	\$20.10		
Nursing Assistants	1,019	6,538	\$13.24		
Carpenters	867	7,417	\$18.45		
First-Line Supervisors of Food Preparation and Serving Workers	754	4,565	\$16.31		
Maintenance and Repair Workers, General	634	5,694	\$17.27		
Hairdressers, Hairstylists, and Cosmetologists	557	3,702	\$13.52		
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	555	4,626	\$22.91		

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Some College**

The top projected "some college" education growth occupations are shown in the following table. These represent positions in health care, construction, office and administrative support, management, business and financial operations, and personal care and service, and are expected to grow between 233 and 648 positions for each year from 2017 to 2025.

Top 10 Some College Growth Occupations 2017 to 2025						
Occupation	Average Annual Growth	Current Employment	Median Wage			
Registered Nurses	866	10,434	\$31.18			
Bookkeeping, Accounting, and Auditing Clerks	648	5,928	\$17.91			
First-Line Supervisors of Office and Administrative Support Workers	588	5,072	\$25.03			
First-Line Supervisors of Construction Trades and Extraction Workers	568	4,772	\$27.50			
Farmers, Ranchers, and Other Agricultural Managers	546	7,463	\$49.75			
General and Operations Managers	433	4,275	\$50.64			
Business Operations Specialists, All Other	342	3,044	\$30.65			
Recreation Workers	235	1,206	\$11.88			
Construction Managers	234	2,713	\$39.23			
Property, Real Estate, and Community Association Managers	233	2,414	\$28.10			







## **Bachelor's Degree or Higher**

The top projected Bachelor's degree or higher education growth occupations are shown in the following table. These represent positions in education, business and financial operations, community and social service, legal, and sales and are expected to grow between 98 and 405 positions for each year from 2017 to 2025.

Top 10 Bachelor's or Higher Growth Occupations 2017 to 2025					
Occupation	Average	Current	Median	Minimum	
	Annual Growth	Employment	Wage	Education	
Elementary School Teachers, Except Special Education	405	4,142	\$29.71	Bachelor's degree	
Accountants and Auditors	398	3,538	\$30.59	Bachelor's degree	
Management Analysts	256	1,944	\$40.24	Bachelor's degree	
Secondary School Teachers, Except Special and Career/Technical Education	215	2,280	\$30.75	Bachelor's degree	
Middle School Teachers, Except Special and Career/Technical Education	190	1,945	\$29.74	Bachelor's degree	
Lawyers	147	2,343	\$49.24	Juris Doctorate	
Securities, Commodities, and Financial Services Sales Agents	133	1,353	\$29.60	Bachelor's degree	
Clergy	108	887	\$19.96	Bachelor's degree	
Child, Family, and School Social Workers	98	743	\$17.68	Master's degree	
Market Research Analysts and Marketing Specialists	98	712	\$29.07	Bachelor's degree	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Summary and Recommendations**

This sixth annual study provides an annual overview of Southwest Florida's labor market including identification of current employment gaps and projected growth occupations. The overall market assessment of the current and expected occupational needs is an important component in the development of new or modified educational programs. The information gathered in this report includes the median hourly wage and the minimum educational requirements complementing the other Workforce Now studies completed last year. In closing, the following recommendations are put forward by the study team:

- 1. A Southwest Florida Labor Market overview should be completed annually and timed to use the latest forecasts provided by the Florida Department of Economic Opportunity.
- 2. The labor market overviews should identify future research opportunities and collaborative opportunities for businesses and educators.
- 3. Further study of the employment gaps is needed to explore local skills, knowledge, tasks, abilities and activities required to fill the employment gaps and increased demand.
- Given the preponderance of expected job growth in relatively unskilled industries, consideration should be directed at how a growing economy can provide jobs with incomes that allow workers to cover the costs of living in Southwest Florida.







#### **INTRODUCTION**

Workforce Now is a regional initiative to better understand Southwest Florida's labor market including employment gaps, specific skills desired, and forecast occupational growth. This is the sixth in a series of Southwest Florida labor market overviews which are updated annually.

The purpose of this updated report is to conduct retrospective and prospective data analysis of information and forecasts from the Florida Department of Economic Opportunity to identify the mix of industries, the industry growth trends, current employment gaps, and the average annual projected demand for regional occupations through the year 2025.

The study was started in Summer 2018 and was completed by the end of August of that year. Primary data collection and analysis were conducted by Dr. Christopher Westley and

the Regional Economic Research Institute at Florida Gulf Coast University. The final report development, editing, and formatting were supported by the Workforce Now research team. For the purposes of this study, the Southwest Florida region is defined as Charlotte, Collier, Glades, Hendry, and Lee Counties.











#### EMPLOYMENT AND INCOME RANKED BY INDUSTRY

Southwest Florida had an average monthly employment of 395,736 in 2017, according to data provided by the Quarterly Census of Employment and Wages (QCEW). QCEW data is based on employees covered by the Florida unemployment insurance, so it does not include workers who are self-employed. Retail trade is the largest industry in Southwest Florida, with an average monthly employment of 73,250, representing 18.5 percent of all employment in the region (as shown in Chart 1 and Table 1).

The second largest industry employer is accommodation and food services, with 61,843 employees and 15.6 percent of regional employment. The third largest industry is health care and social assistance at 55,033, which represents 13.9 percent of the region's employment. Construction continues to rebound from the recession and is the fourth largest industry with 46,463 employees and 11.7 percent of the region's employment. While the top four industries comprise 59.8 percent of the region's workforce, it remained relatively consistent when compared to 2016, which made up 59.2 percent of the region's workforce. The fifth largest industry is administrative and waste services, employing 29,457 and with 7.4 percent of the region's workforce. This industry includes many service-type occupations.

Chart 1: Southwest Florida Employment by Industry, 2017



Southwest Florida has a comparative advantage in weather (sunshine and mild winter temperatures), beaches, and recreational activities. These quality of life characteristics are drivers that support the key industries in Southwest Florida, such as retail trade, health care, accommodation and food services, construction, and support services. Population growth has been a strong driver of wealth for the region, creating the need for housing, recreation, and services.

Table 1: Southwest Florida Employment by Industry						
	2017					
Industry	Average Monthly Employment	Percent of Total Employment				
Retail Trade	73,250	18.5%				
Accommodation and Food Services	61,843	15.6%				
Health Care and Social Assistance	55,033	13.9%				
Construction	46,463	11.7%				
Administrative and Waste Services	29,457	7.4%				
Professional and Technical Services	20,606	5.2%				
Other Services, Except Public Administration	16,849	4.3%				
Arts, Entertainment, and Recreation	15,978	4.0%				
Real Estate and Rental and Leasing	11,801	3.0%				
Finance and Insurance	11,283	2.9%				
Other Industry Sectors	53,173	13.4%				
Total	395,736	100.0%				

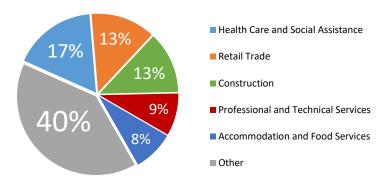






The largest contribution to total wage income is health care and social assistance—with annual wage expenditures exceeding \$2.8 billion—representing 17 percent of total wage expenditures in Southwest Florida. Retail trade is the next largest industry in terms of total wage expenditure, with 13.3 percent of the region's total annual wage and expenditures of \$2.2 billion. The third largest industry measured by total wage expenditures is construction, with 12.7 percent of the total regional wage expenditures at \$2.1 billion. Professional and technical services is the fourth largest industry as measured by total wages at \$1.4 billion or 8.7 percent of the region's total wage expenditures. Finally, accommodation and food services is the fifth largest in terms of total wage

Chart 2: Southwest Florida Total Wages by Industry, 2017



expenditures, with \$1.4 billion or 8.4 percent of the region's total wage expenditures. The total wage expenditures by industry are shown in Chart 2 and Table 2.

Table 2: Southwest Florida Total Wages by Industry				
2017				
Industry	Total Wages (Thousands of Dollars)	Percent of Total Wages		
Health Care and Social Assistance	2,832,788	17.0%		
Retail Trade	2,216,979	13.3%		
Construction	2,114,480	12.7%		
Professional and Technical Services	1,448,999	8.7%		
Accommodation and Food Services	1,399,363	8.4%		
Administrative and Waste Services	991,369	5.9%		
Finance and Insurance	987,929	5.9%		
Wholesale Trade	770,304	4.6%		
Real Estate and Rental and Leasing	614,297	3.7%		
Arts, Entertainment, and Recreation	600,824	3.6%		
Other Industry Sectors	2,688,800	16.1%		
Total	16,666,133	100.0%		

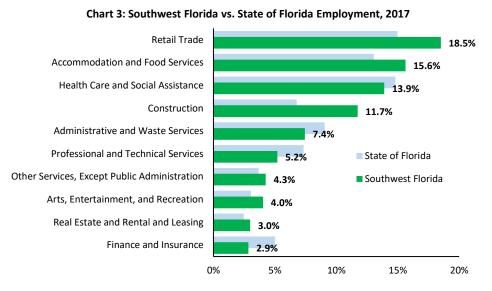






## SOUTHWEST FLORIDA INDUSTRY MIX COMPARED TO THE STATE OF FLORIDA

Southwest Florida has a higher percentage employees in retail trade, accommodation and food services, construction, arts, entertainment, and recreation, real estate and rental and leasing, agriculture, forestry, fishing and hunting, and mining, quarrying, and oil and gas extraction, when compared to the State of Florida. Southwest Florida's comparative advantage as a preferred location for tourism and retirement certainly helps to explain why the region differs from the state. The largest positive differentials between Southwest Florida and the state include construction (5.0 percent greater than the state of Florida), retail trade (3.5 percent), accommodation



and food services (2.6 percent), agriculture, forestry, fishing and hunting (1.6 percent), and arts, entertainment, and recreation (1.0 percent).

The largest negative differentials between the region and the state include finance and insurance (2.2 percent below the state of Florida), professional and technical services (2.1 percent), manufacturing (2.1 percent), transportation and warehousing (1.8 percent), and wholesale trade (1.8 percent).

	2017		
Industry	State of Florida	Southwest Florida	Difference
Retail Trade	14.98%	18.51%	3.53%
Accommodation and Food Services	13.06%	15.63%	2.57%
Health Care and Social Assistance	14.81%	13.91%	-0.91%
Construction	6.77%	11.74%	4.97%
Administrative and Waste Services	9.05%	7.44%	-1.60%
Professional and Technical Services	7.34%	5.21%	-2.14%
Other Services, Except Public Administration	3.68%	4.26%	0.58%
Arts, Entertainment, and Recreation	3.06%	4.04%	0.98%
Real Estate and Rental and Leasing	2.46%	2.98%	0.52%
Finance and Insurance	5.02%	2.85%	-2.17%
Wholesale Trade	4.62%	2.84%	-1.78%
Manufacturing	4.88%	2.81%	-2.08%
Agriculture, Forestry, Fishing and Hunting	0.96%	2.53%	1.57%
Transportation and Warehousing	3.48%	1.69%	-1.80%
Educational Services	2.11%	1.21%	-0.90%
Information	1.86%	1.17%	-0.68%
Management of Companies and Enterprises	1.39%	0.77%	-0.63%
Utilities	0.31%	0.29%	-0.02%
Mining, Quarrying, and Oil and Gas Extraction	0.05%	0.09%	0.03%

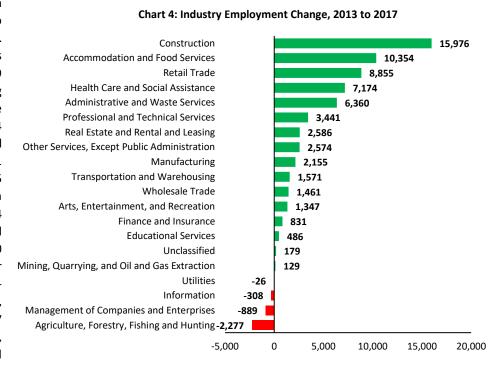






#### **FASTEST AND SLOWEST GROWTH INDUSTRIES, 2013 TO 2017**

Southwest Florida's economic growth continued to strengthen from 2013 to 2017, as shown in table 4 and chart 4. During the time period, the region has experienced an increase of 61,979 employees. The fastest-growing industries from 2013 to 2017 were construction (15,976 employees, 52.4 percent increase), accommodation and food services (10,354 employees, 20.1 percent increase), retail trade (8,855 employees, 13.8 percent increase), health care and social assistance (7.174 employees, 15 percent increase), and administrative and waste services (6,360 employees, 27.5 percent increase). Over the same time period, the slowestgrowing industries were agriculture, forestry, fishing and hunting (2,277 employee decline, 18.6 percent decrease), management companies



enterprises (889 employee decline, 22.7 percent decrease), information (308 employee decline, 6.2 percent decrease), utilities (26 employee decline, 2.2 percent decrease), and mining, quarrying, and oil and gas extraction (129 employees, 61.4 percent increase).

While the construction industry continues to recover from the recession, both the accommodation and food services and retail trade have grown immensely since 2011. The growth can be attributed to an increasing population in the region, along with increases in tourism as well. While most industries were shown to have growth over this time period, utilities, information, management of companies and enterprises, and agriculture, forestry, fishing and hunting all experienced contractions from 2013 to 2017.







**Table 4: Industry Employment Change** 2013 to 2017 2013 2017 Industry Growth **Percent** Construction 30,487 46,463 15,976 52.4% **Accommodation and Food Services** 51,489 61,843 10,354 20.1% **Retail Trade** 64,395 73,250 8,855 13.8% Health Care and Social Assistance 47,859 55,033 7,174 15.0% Administrative and Waste Services 23,097 29,457 6,360 27.5% **Professional and Technical Services** 17,165 20.0% 20,606 3,441 Real Estate and Rental and Leasing 9,215 11,801 2,586 28.1% Other Services, Except Public Administration 14,275 16,849 2,574 18.0% Manufacturing 8,953 11,108 2,155 24.1% 1,571 Transportation and Warehousing 5,109 6,680 30.7% Wholesale Trade 9,762 11,223 1,461 15.0% Arts, Entertainment, and Recreation 14,631 15,978 1,347 9.2% Finance and Insurance 10,452 831 11,283 8.0% **Educational Services** 4,298 4,784 486 11.3% Unclassified 59 238 179 303.4% Mining, Quarrying, and Oil and Gas Extraction 210 339 129 61.4% Utilities -2.2% 1,165 1,139 -**26** Information 4,947 -308 -6.2% 4,639 Management of Companies and Enterprises 3,918 3,029 -889 -22.7% Agriculture, Forestry, Fishing and Hunting 12,271 9,994 -2,277 -18.6% Total 333,757 395,736 61,979 18.6%

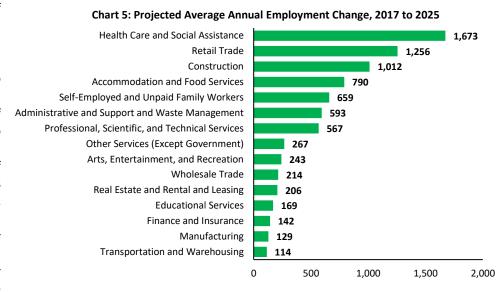






#### PROJECTED INDUSTRY EMPLOYMENT GROWTH, 2017 TO 2025

Each year, the Florida Department of Economic Opportunity provides an employment forecast by industry, which is shown in Chart 5 and Table 5. Health care and social assistance is projected to be the fastest-growing industry in Southwest Florida, adding an average of 1,673 employees each year from 2017 to 2025. Retail trade is projected to add second largest number employees, adding 1,256 per year. This is followed by construction at 1,012 employees per year, accommodation and food services at 790 employees per year, and self-employed and unpaid family workers at 659 employees per year. Administrative, support and waste



management are projected to add 593 employees per year, professional, scientific, and technical services are projected to add 567 per year and the "other services (except government)" industry is projected to add 267 per year. The arts, entertainment, and recreation industry is projected to grow by 243 employees per year, wholesale trade by 214 employees per year, real estate by 206 employees per year, educational services by 169 employees per year, finance and insurance by 142 employees per year, manufacturing by 129 employees per year, and transportation and warehousing by 114 employees per year.

Table 5: Projected Average Annual Employment Change by Industry 2017 to 2025 Industry **Average Annual Increase Average Annual Percentage Increase** Health Care and Social Assistance 1,673 2.9% **Retail Trade** 1,256 1.7% Construction 1,012 2.1% Accommodation and Food Services 790 1.3% Self-Employed and Unpaid Family Workers 659 1.5% Administrative and Support and Waste Management 593 1.8% Professional, Scientific, and Technical Services 567 2.4% Other Services (Except Government) 267 1.3% Arts, Entertainment, and Recreation 243 1.4% Wholesale Trade 1.7% 214 Real Estate and Rental and Leasing 206 1.6% **Educational Services** 169 2.9% Finance and Insurance 142 1.2% Manufacturing 129 1.2% Transportation and Warehousing 114 1.6% Other -20 -0.1% 8,015 1.7%

Source: Employment Projections, Florida Department of Economic Opportunity







#### SOUTHWEST FLORIDA AND SEASONALITY

Southwest Florida is often characterized as experiencing seasonal fluctuations in employment levels throughout the year. However, fluctuations in employment levels are different for each industry, with some industries facing severe fluctuations from one month to the next, while others exhibiting little to no fluctuation. In this section, we analyze which industries display the largest seasonal fluctuations in Southwest Florida, as well as breaking it down by the three coastal counties (Charlotte, Collier, and Lee).

Because each workforce region is different, we identify the month with the highest employment and lowest employment levels for each workforce region. Seasonal fluctuation is then determined by dividing the total employment during the lowest month by the total employment during the highest month. Lower ratios represent a workforce region with a larger seasonal fluctuation, while numbers with a higher ratio represent a lower season fluctuation. Table 6 shows the results from those rankings. Southwest Florida exhibited the highest seasonal fluctuation between the highest month of employment (December) and the lowest month of employment (September). Notwithstanding the effect of Hurricane Irma on the 2017 seasonal ratios, Southwest Florida is still among the most seasonal regions in the state. In 2016, its ratio of 0.92 ranked it second among the state's workforce regions (See Table 7).

Table 6: Largest Seasonal Fluctuation by Workforce Region							
2017							
Danida.	144l-f D!		Emplo	yment		Lowest/Highest	Trendline
Ranking	Workforce Region	Lowest	Month	Highest	Month	Ratio	Trendline
1	Southwest Florida	360,170	September	414,230	December	0.87	
2	Heartland	42,025	September	48,083	March	0.87	-
3	Okaloosa Walton	83,726	January	92,551	June	0.90	
4	Gulf Coast	66,005	January	72,593	July	0.91	
5	Research Coast	161,017	September	174,263	December	0.92	
6	Suncoast	250,440	September	269,021	December	0.93	
7	Palm Beach County	514,461	September	549,702	December	0.94	
8	North Florida	21,392	January	22,684	June	0.94	•
9	South Florida	983,998	September	1,042,991	December	0.94	
10	Brevard	173,721	September	183,707	December	0.95	
11	Broward	674,305	September	709,863	December	0.95	
12	Polk	183,125	September	192,673	December	0.95	
13	Northeast Florida	580,956	January	610,612	December	0.95	•
14	Central Florida	1,081,138	January	1,135,252	December	0.95	•
15	Capital Region	109,866	August	115,338	November	0.95	
16	Tampa Bay	585,016	September	613,207	December	0.95	
17	Pasco Hernando	132,328	September	138,368	December	0.96	
18	Escarosa	139,756	January	145,832	November	0.96	•
19	Florida Crown	23,924	September	24,951	December	0.96	
20	Citrus Levy Marion	118,440	September	123,504	December	0.96	
21	Pinellas	374,239	September	388,719	November	0.96	
22	Flagler Volusia	166,218	September	172,457	December	0.96	
23	North Central Florida	97,017	June	100,364	November	0.97	
24	Chipola	17,759	January	18,198	December	0.98	•

Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics

Note: Trendline shows trend of employment data from January 2017 to December 2017. Red dot indicates the low point in employment during that year, while blue dot indicates the high point in employment.







Table 7: Largest Seasonal Fluct	uation by Workforce Region
2016	

Company   Comp				2010				
1	Panking	Workforce Paging		Emplo	yment		Lowest/Highest	Trandlina
2         Southwest Florida         376,017         July         408,493         December         0.92           3         Heartland         42,522         August         46,150         December         0.92           4         Gulf Coast         66,801         January         72,371         July         0.92           5         Capital Region         106,842         January         113,845         November         0.94           6         Suncoast         250,072         July         265,267         December         0.94           7         Research Coast         161,244         July         170,758         December         0.94           8         Brevard         168,914         January         178,712         December         0.95           9         Pasco Hernando         128,120         January         135,053         December         0.95           10         Northeast Florida         558,056         January         588,242         December         0.95           11         Palm Beach County         515,221         July         543,080         December         0.95           12         Central Florida         1,038,361         January         170,185	Nanking	Workforce Region	Lowest	Month	Highest	Month	Ratio	rrendine
Heartland	1	Okaloosa Walton	81,238	January	91,037	July	0.89	•
4 Gulf Coast 66,801 January 72,371 July 0.92 5 Capital Region 106,842 January 113,845 November 0.94 6 Suncoast 250,072 July 265,267 December 0.94 7 Research Coast 161,244 July 170,758 December 0.94 8 Brevard 168,914 January 178,712 December 0.95 9 Pasco Hernando 128,120 January 135,053 December 0.95 10 Northeast Florida 558,056 January 588,242 December 0.95 11 Palm Beach County 515,221 July 543,080 December 0.95 12 Central Florida 1,038,361 January 170,185 December 0.95 13 Flagler Volusia 161,877 January 170,185 December 0.95 14 North Central Florida 93,680 January 98,466 November 0.95 15 Escarosa 134,938 January 141,472 November 0.95 16 Tampa Bay 579,709 January 606,779 December 0.96 17 Pinellas 366,085 January 382,895 December 0.96 18 North Florida 21,343 December 22,305 June 0.96 19 Florida Crown 23,975 January 25,029 November 0.96 20 Polk 179,129 July 186,901 December 0.96 21 Citrus Levy Marion 117,744 January 122,813 December 0.96	2	Southwest Florida	376,017	July	408,493	December	0.92	
5         Capital Region         106,842         January         113,845         November         0.94           6         Suncoast         250,072         July         265,267         December         0.94           7         Research Coast         161,244         July         170,758         December         0.94           8         Brevard         168,914         January         178,712         December         0.95           9         Pasco Hernando         128,120         January         135,053         December         0.95           10         Northeast Florida         558,056         January         588,242         December         0.95           11         Palm Beach County         515,221         July         543,080         December         0.95           12         Central Florida         1,038,361         January         1,091,731         December         0.95           13         Flagler Volusia         161,877         January         170,185         December         0.95           14         North Central Florida         93,680         January         98,466         November         0.95           15         Escarosa         134,938         January         <	3	Heartland	42,522	August	46,150	December	0.92	
6         Suncoast         250,072         July         265,267         December         0.94           7         Research Coast         161,244         July         170,758         December         0.94           8         Brevard         168,914         January         178,712         December         0.95           9         Pasco Hernando         128,120         January         135,053         December         0.95           10         Northeast Florida         558,056         January         588,242         December         0.95           11         Palm Beach County         515,221         July         543,080         December         0.95           12         Central Florida         1,038,361         January         1,091,731         December         0.95           13         Flagler Volusia         161,877         January         170,185         December         0.95           14         North Central Florida         93,680         January         98,466         November         0.95           15         Escarosa         134,938         January         141,472         November         0.95           16         Tampa Bay         579,709         January         3	4	Gulf Coast	66,801	January	72,371	July	0.92	
7         Research Coast         161,244         July         170,758         December         0.94           8         Brevard         168,914         January         178,712         December         0.95           9         Pasco Hernando         128,120         January         135,053         December         0.95           10         Northeast Florida         558,056         January         588,242         December         0.95           11         Palm Beach County         515,221         July         543,080         December         0.95           12         Central Florida         1,038,361         January         1,091,731         December         0.95           13         Flagler Volusia         161,877         January         170,185         December         0.95           14         North Central Florida         93,680         January         98,466         November         0.95           15         Escarosa         134,938         January         141,472         November         0.95           16         Tampa Bay         579,709         January         382,895         December         0.96           17         Pinellas         366,085         January         <	5	Capital Region	106,842	January	113,845	November	0.94	•
8         Brevard         168,914         January         178,712         December         0.95           9         Pasco Hernando         128,120         January         135,053         December         0.95           10         Northeast Florida         558,056         January         588,242         December         0.95           11         Palm Beach County         515,221         July         543,080         December         0.95           12         Central Florida         1,038,361         January         1,091,731         December         0.95           13         Flagler Volusia         161,877         January         170,185         December         0.95           14         North Central Florida         93,680         January         98,466         November         0.95           15         Escarosa         134,938         January         141,472         November         0.95           16         Tampa Bay         579,709         January         382,895         December         0.96           17         Pinellas         366,085         January         382,895         December         0.96           18         North Florida         21,343         December	6	Suncoast	250,072	July	265,267	December	0.94	
9	7	Research Coast	161,244	July	170,758	December	0.94	
10 Northeast Florida 558,056 January 588,242 December 0.95 11 Palm Beach County 515,221 July 543,080 December 0.95 12 Central Florida 1,038,361 January 1,091,731 December 0.95 13 Flagler Volusia 161,877 January 170,185 December 0.95 14 North Central Florida 93,680 January 98,466 November 0.95 15 Escarosa 134,938 January 141,472 November 0.95 16 Tampa Bay 579,709 January 606,779 December 0.96 17 Pinellas 366,085 January 382,895 December 0.96 18 North Florida 21,343 December 22,305 June 0.96 19 Florida Crown 23,975 January 25,029 November 0.96 20 Polk 179,129 July 186,901 December 0.96 21 Citrus Levy Marion 117,744 January 122,813 December 0.96	8	Brevard	168,914	January	178,712	December	0.95	•
11         Palm Beach County         515,221         July         543,080         December         0.95           12         Central Florida         1,038,361         January         1,091,731         December         0.95           13         Flagler Volusia         161,877         January         170,185         December         0.95           14         North Central Florida         93,680         January         98,466         November         0.95           15         Escarosa         134,938         January         141,472         November         0.95           16         Tampa Bay         579,709         January         606,779         December         0.96           17         Pinellas         366,085         January         382,895         December         0.96           18         North Florida         21,343         December         22,305         June         0.96           19         Florida Crown         23,975         January         25,029         November         0.96           20         Polk         179,129         July         186,901         December         0.96           21         Citrus Levy Marion         117,744         January         122,8	9	Pasco Hernando	128,120	January	135,053	December	0.95	•
12         Central Florida         1,038,361         January         1,091,731         December         0.95           13         Flagler Volusia         161,877         January         170,185         December         0.95           14         North Central Florida         93,680         January         98,466         November         0.95           15         Escarosa         134,938         January         141,472         November         0.95           16         Tampa Bay         579,709         January         606,779         December         0.96           17         Pinellas         366,085         January         382,895         December         0.96           18         North Florida         21,343         December         22,305         June         0.96           19         Florida Crown         23,975         January         25,029         November         0.96           20         Polk         179,129         July         186,901         December         0.96           21         Citrus Levy Marion         117,744         January         122,813         December         0.96	10	Northeast Florida	558,056	January	588,242	December	0.95	•
13 Flagler Volusia 161,877 January 170,185 December 0.95 14 North Central Florida 93,680 January 98,466 November 0.95 15 Escarosa 134,938 January 141,472 November 0.95 16 Tampa Bay 579,709 January 606,779 December 0.96 17 Pinellas 366,085 January 382,895 December 0.96 18 North Florida 21,343 December 22,305 June 0.96 19 Florida Crown 23,975 January 25,029 November 0.96 20 Polk 179,129 July 186,901 December 0.96 21 Citrus Levy Marion 117,744 January 122,813 December 0.96	11	Palm Beach County	515,221	July	543,080	December	0.95	
14       North Central Florida       93,680       January       98,466       November       0.95         15       Escarosa       134,938       January       141,472       November       0.95         16       Tampa Bay       579,709       January       606,779       December       0.96         17       Pinellas       366,085       January       382,895       December       0.96         18       North Florida       21,343       December       22,305       June       0.96         19       Florida Crown       23,975       January       25,029       November       0.96         20       Polk       179,129       July       186,901       December       0.96         21       Citrus Levy Marion       117,744       January       122,813       December       0.96	12	Central Florida	1,038,361	January	1,091,731	December	0.95	•
15 Escarosa 134,938 January 141,472 November 0.95 16 Tampa Bay 579,709 January 606,779 December 0.96 17 Pinellas 366,085 January 382,895 December 0.96 18 North Florida 21,343 December 22,305 June 0.96 19 Florida Crown 23,975 January 25,029 November 0.96 20 Polk 179,129 July 186,901 December 0.96 21 Citrus Levy Marion 117,744 January 122,813 December 0.96	13	Flagler Volusia	161,877	January	170,185	December	0.95	•
16     Tampa Bay     579,709     January     606,779     December     0.96       17     Pinellas     366,085     January     382,895     December     0.96       18     North Florida     21,343     December     22,305     June     0.96       19     Florida Crown     23,975     January     25,029     November     0.96       20     Polk     179,129     July     186,901     December     0.96       21     Citrus Levy Marion     117,744     January     122,813     December     0.96	14	North Central Florida	93,680	January	98,466	November	0.95	•
17     Pinellas     366,085     January     382,895     December     0.96       18     North Florida     21,343     December     22,305     June     0.96       19     Florida Crown     23,975     January     25,029     November     0.96       20     Polk     179,129     July     186,901     December     0.96       21     Citrus Levy Marion     117,744     January     122,813     December     0.96	15	Escarosa	134,938	January	141,472	November	0.95	•
18 North Florida 21,343 December 22,305 June 0.96 19 Florida Crown 23,975 January 25,029 November 0.96 20 Polk 179,129 July 186,901 December 0.96 21 Citrus Levy Marion 117,744 January 122,813 December 0.96	16	Tampa Bay	579,709	January	606,779	December	0.96	•
19 Florida Crown 23,975 January 25,029 November 0.96 20 Polk 179,129 July 186,901 December 0.96 21 Citrus Levy Marion 117,744 January 122,813 December 0.96	17	Pinellas	366,085	January	382,895	December	0.96	•
20         Polk         179,129         July         186,901         December         0.96           21         Citrus Levy Marion         117,744         January         122,813         December         0.96	18	North Florida	21,343	December	22,305	June	0.96	
21 Citrus Levy Marion 117,744 January 122,813 December 0.96	19	Florida Crown	23,975	January	25,029	November	0.96	•
	20	Polk	179,129	July	186,901	December	0.96	
22 Broward 671,809 January 698,319 December 0.96	21	Citrus Levy Marion	117,744	January	122,813	December	0.96	•
	22	Broward	671,809	January	698,319	December	0.96	•
23 Chipola 17,527 January 18,184 August 0.96	23	Chipola	17,527	January	18,184	August	0.96	•
24 South Florida 997,317 January 1,031,839 December 0.97	24	South Florida	997,317	January	1,031,839	December	0.97	•

Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics

Note: Trendline shows trend of employment data from January 2016 to December 2016. Red dot indicates the low point in employment during that year, while blue dot indicates the high point in employment.







#### **Southwest Florida**

Table 8 shows the highest seasonal industries for Southwest Florida. As can be seen below, the agriculture industry has the highest seasonal fluctuation from September to December, followed by the arts, entertainment, and recreation industry, construction industry, transportation and warehousing industry, and accommodation and food services industry. These industries also represent sectors with large employment numbers, as arts, entertainment, and recreation (15,978 employees, seventh largest industry), construction (46,463 employees, fourth largest industry), and accommodation and food services (61,843 employees, second largest industry) all fall in the top 10 largest industries for the region.

	Table 8: Most Seasonal Industries  Southwest Florida - 2017					
Doubing	In direction	Emplo	yment	Sep/Dec	Total	Employment
Ranking	Industry =	September	December	Ratio	Employment	Ranking
1	Agriculture, Forestry, Fishing and Hunting	6,499	10,924	0.59	9,994	12
2	Arts, Entertainment, and Recreation	13,019	16,974	0.77	15,978	7
3	Construction	40,398	49,138	0.82	46,463	4
4	Transportation and Warehousing	6,113	7,428	0.82	6,680	13
5	Accommodation and Food Services	53,320	64,449	0.83	61,843	2
6	Retail Trade	67,314	78,247	0.86	73,250	1
7	Administrative and Waste Services	27,931	31,075	0.90	29,457	5
8	Real Estate and Rental and Leasing	11,356	12,428	0.91	11,801	8
9	<b>Educational Services</b>	4,613	5,016	0.92	4,784	14
10	Manufacturing	10,430	11,269	0.93	11,108	11

Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics

As shown in Table 9, the finance and insurance industry had the lowest seasonal fluctuation from September to December, followed by the utilities industry, management of companies and enterprises industry, information industry, and wholesale trade industry.

	Table 9: Least Seasonal Industries							
		Southwest Flo	orida - 2017					
Doubing	line altre artium e	Emplo	yment	Sep/Dec	Total	Employment		
Ranking	Industry =	September	December	Ratio	Employment	Ranking		
18	Finance and Insurance	11,274	11,246	1.00	11,283	9		
17	Utilities	1,119	1,137	0.98	1,139	17		
16	Management of Companies and Enterprises	3,017	3,106	0.97	3,029	16		
15	Information	4,499	4,684	0.96	4,639	15		
14	Wholesale Trade	10,872	11,337	0.96	11,223	10		







#### **Charlotte County**

Table 10 shows the highest seasonal industries for Charlotte County. As can be seen below, the agriculture industry has the highest seasonal fluctuation from September to December, followed by the transportation industry, arts, entertainment, and recreation industry, real estate industry, and accommodation and food services industry. The top 10 industries also represent sectors with large employment numbers, as six of the top 10 industries with the highest seasonal fluctuations also represent the top 10 largest industries for the county.

	Table :	10: Most Sea	asonal Indus unty - 2017	tries		
Danking	Industry -	Emplo	yment	Sep/Dec	Total	Employment
Ranking	Industry =	September	December	Ratio	Employment	Ranking
1	Agriculture, Forestry, Fishing and Hunting	241	450	0.54	404	14
2	Transportation and Warehousing	876	1,083	0.81	929	10
3	Arts, Entertainment, and Recreation	1,061	1,301	0.82	1,317	7
4	Real Estate and Rental and Leasing	891	1,047	0.85	974	9
5	Accommodation and Food Services	5,545	6,292	0.88	6,240	3
6	Utilities	47	53	0.89	53	17
7	Construction	3,434	3,868	0.89	3,753	4
8	Retail Trade	8,840	9,893	0.89	9,299	1
9	Mining, Quarrying, and Oil and Gas Extraction	44	47	0.94	43	18
10	Wholesale Trade	714	759	0.94	722	12

Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics

As shown in Table 11, the administrative and waste services industry had the lowest seasonal fluctuation from September to December, followed by the finance and insurance industry, professional and technical services industry, management of companies and enterprises industry, and health care and social assistance industry.

	Table 11: Least Seasonal Industries  Charlotte County - 2017						
Danking	Industry	Emplo	Employment		Total	Employment	
Ranking	Industry =	September	December	Ratio	Employment	Ranking	
18	Administrative and Waste Services	2,214	2,195	1.01	2,267	5	
17	Finance and Insurance	1,065	1,062	1.00	1,059	8	
16	Professional and Technical Services	1,709	1,761	0.97	1,643	6	
15	Management of Companies and Enterprises	130	134	0.97	143	16	
14	Health Care and Social Assistance	8,731	9,089	0.96	8,917	2	







#### **Collier County**

Table 12 shows the highest seasonal industries for Collier County. As can be seen below, the agriculture industry has the highest seasonal fluctuation from September to December, followed by the arts, entertainment, and recreation industry, transportation industry, accommodation and food services industry, and construction industry. The top 10 industries also represent sectors with large employment numbers, as six of the top 10 industries with the highest seasonal fluctuations also represent the top 10 largest industries for the county.

	Table 12: Most Seasonal Industries  Collier County - 2017						
Doubing	I made cating	Emplo	yment	_ Sep/Dec	Total	Employment	
Ranking	Industry	September	December	Ratio	Employment	Ranking	
1	Agriculture, Forestry, Fishing and Hunting	1,907	4,505	0.42	3,703	11	
2	Arts, Entertainment, and Recreation	5,872	7,992	0.73	7,186	6	
3	Transportation and Warehousing	1,472	1,884	0.78	1,645	14	
4	Accommodation and Food Services	17,090	21,627	0.79	20,672	2	
5	Construction	12,784	15,871	0.81	15,094	4	
6	Retail Trade	19,376	22,926	0.85	21,584	1	
7	Administrative and Waste Services	8,968	10,100	0.89	9,551	5	
8	<b>Educational Services</b>	1,817	1,997	0.91	1,881	13	
9	Real Estate and Rental and Leasing	3,796	4,165	0.91	3,966	9	
10	Management of Companies and Enterprises	356	390	0.91	366	16	

Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics

As shown in Table 13, the finance industry had the lowest seasonal fluctuation from September to December, followed by the mining, quarrying, and oil and gas extraction industry, information industry, manufacturing industry, and wholesale trade industry.

	Table 13: Least Seasonal Industries  Collier County - 2017							
Employment Sen/Dec Total Employe								
Ranking	Industry =	September	December	Ratio	Employment	Ranking		
18	Finance and Insurance	4,004	4,011	1.00	4,037	8		
17	Mining, Quarrying, and Oil and Gas Extraction	44	45	0.98	43	18		
16	Information	1,321	1,356	0.97	1,368	15		
15	Manufacturing	3,653	3,846	0.95	3,840	10		
14	Wholesale Trade	3,345	3,545	0.94	3,525	12		







#### **Lee County**

Table 14 shows the highest seasonal industries for Lee County. As can be seen below, the agriculture industry has the highest seasonal fluctuation from September to December, followed by the arts, entertainment, and recreation industry, construction industry, accommodation and food services industry, and transportation and warehousing industry. The top 10 industries also represent sectors with large employment numbers, as six of the top 10 industries with the highest seasonal fluctuations also represent the top 10 largest industries for the county.

	Table 14: Most Seasonal Industries  Lee County - 2017						
Doubing	I medicinatus e	Emplo	yment	Sep/Dec	Total	Employment	
Ranking	Industry	September	December	Ratio	Employment	Ranking	
1	Agriculture, Forestry, Fishing and Hunting	988	1,350	0.73	1,413	16	
2	Arts, Entertainment, and Recreation	6,049	7,638	0.79	7,427	7	
3	Construction	23,505	28,522	0.82	26,849	3	
4	Accommodation and Food Services	29,780	35,511	0.84	33,920	2	
5	Transportation and Warehousing	3,688	4,312	0.86	3,958	12	
6	Retail Trade	37,592	43,755	0.86	40,767	1	
7	Administrative and Waste Services	16,433	18,374	0.89	17,280	5	
8	Manufacturing	5,518	6,041	0.91	5,933	11	
9	Real Estate and Rental and Leasing	6,553	7,101	0.92	6,747	8	
10	<b>Educational Services</b>	2,467	2,653	0.93	2,564	14	

Source: Quarterly Census of Employment and Wages, Bureau of Labor Statistics

As shown in Table 15, the finance and insurance industry had the lowest seasonal fluctuation from September to December, followed by the utilities industry, management of companies and enterprises industry, wholesale trade industry, and information industry.

	Table 15: Least Seasonal Industries							
	Lee County - 2017							
Douking	In decature	Employ	Employment		Total	Employment		
Ranking	Industry	September	December	Ratio	Employment	Ranking		
18	Finance and Insurance	6,004	5,973	1.01	5,985	10		
17	Utilities	809	807	1.00	814	17		
16	Management of Companies and Enterprises	2,530	2,581	0.98	2,515	15		
15	Wholesale Trade	6,565	6,772	0.97	6,716	9		
14	Information	2,650	2,764	0.96	2,711	13		







#### OCCUPATIONAL EMPLOYMENT GAPS

The study team worked with the Florida Department of Economic Opportunity to identify estimates of the most recent Southwest Florida employment gaps by using online job postings and graduations to identify summer 2018 employment gaps. Employment gaps are identified by utilizing both the total supply and short-term demand for an occupation. Total supply consists of all people who are potentially available for employment for a specific occupation, consisting of all completers/graduates from public and private postsecondary educational institutions in the state of Florida plus all jobseekers. Likewise, short-term demand consists of the number of people needed to fill openings for a specific occupation. The overall employment gap identified by this study using the Florida Department of Economic Opportunity demand and supply analysis was approximately 6,578 positions.

Employment gaps are positions that have a regional demand greater than the estimated supply available for the Southwest Florida market. Some of these positions will be filled from outside the region, firms may hire less qualified candidates, or the positions may be left vacant for an extended period of time. It is our hope that identifying these regional employment gaps can assist parents, students, employers, and educators in identifying potential opportunities.

The top 10 employment gaps were for first-line supervisors of retail sales, retail salespersons, maintenance and repair workers, firstline supervisors of food preparation and service, landscaping and groundskeeping workers, first-line supervisors of construction trades, first-line supervisors of office workers, customer service representatives, maids and housekeeping cleaners, and stock clerks and order fillers. The employment gap, current employment level, median wage and minimum educational requirements for the top 10 employment gaps are shown in Table 16. The median hourly wages for the top 10 employment gaps ranged from \$11.08 per hour to \$27.50 per hour. The minimum education requirements for each occupation varied from less than high school to some college.

A complete list of the top 50 employment gaps in Southwest Florida can be found in the Appendix.

Table 16: Top Employment Gaps  Summer 2018						
Occupation	Current Supply Gap	Current Employment	Median Wage	Minimum Education		
First-Line Supervisors of Retail Sales Workers	-385	8,160	\$20.10	PS Adult Voc		
Retail Salespersons	-379	24,294	\$11.15	HS/GED		
Maintenance and Repair Workers, General	-262	5,694	\$17.27	PS Adult Voc		
First-Line Supervisors of Food Preparation and Serving Workers	-223	4,565	\$16.31	PS Adult Voc		
Landscaping and Groundskeeping Workers	-167	14,003	\$11.96	Less HS/GED		
First-Line Supervisors of Construction Trades and Extraction Workers	-156	4,772	\$27.50	Some College		
First-Line Supervisors of Office and Administrative Support Workers	-152	5,072	\$25.03	Some College		
<b>Customer Service Representatives</b>	-120	9,073	\$14.41	PS Adult Voc		
Maids and Housekeeping Cleaners	-105	5,833	\$11.08	Less HS/GED		
Stock Clerks and Order Fillers	-98	7,917	\$12.12	HS/GED		





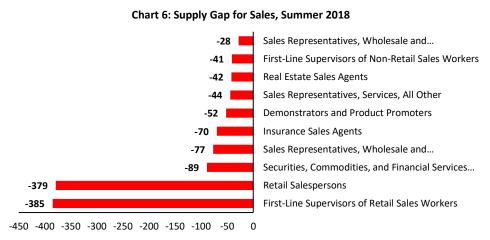


#### **CURRENT EMPLOYMENT GAPS BY MAJOR OCCUPATIONAL GROUP**

The Southwest Florida employment gaps can also be viewed by major occupational groups. The largest occupations groups, ranked by total employment gaps, include sales, administrative, maintenance, construction, food preparation, building and grounds cleaning, healthcare practitioners, business, transportation, and management. More information on the largest occupation groups can be found below.

#### **Sales Occupations**

The overall employment gap identified for sales occupations was approximately 1,279 positions. The top 10 employment gaps for sales occupations include firstline supervisors of retail sales, retail salespersons, financial service sales agents, sales representatives (except technical and scientific products), insurance sales agents, demonstrators and product promoters, representatives for other services, real estate sales agents, first-line supervisors non-retail sales, and representatives for technical and scientific



products. The median wage for the top 10 employment gaps in sales occupations ranged from \$11.15 per hour to \$39.21 per hour. Minimum education for these occupations ranged from high school or GED to Bachelor's degree. More information can be found in Table 17 and Chart 6.

Table 17: Sales and Related Occupations  Summer 2018						
Occupation	Supply	Current	Median	Minimum		
	Gap	Employment	Wage	Education		
First-Line Supervisors of Retail Sales Workers	-385	8,160	\$20.10	PS Adult Voc		
Retail Salespersons	-379	24,294	\$11.15	HS/GED		
Securities, Commodities, and Financial Services Sales Agents	-89	1,353	\$29.60	Bachelor's		
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	-77	4,626	\$22.91	PS Adult Voc		
Insurance Sales Agents	-70	1,964	\$23.28	PS Adult Voc		
Demonstrators and Product Promoters	-52	N/R	\$11.28	HS/GED		
Sales Representatives, Services, All Other	-44	3,962	\$22.96	HS/GED		
Real Estate Sales Agents	-42	2,887	\$31.08	PS Adult Voc		
First-Line Supervisors of Non-Retail Sales Workers	-41	1,656	\$30.61	Some College		
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	-28	846	\$39.21	PS Adult Voc		

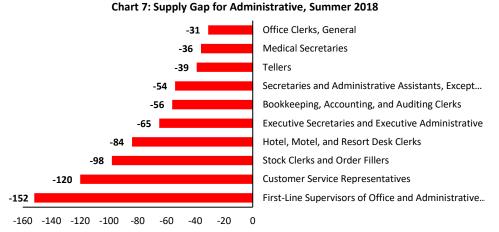






#### **Administrative Occupations**

The overall employment gap identified for occupations administrative approximately 865 positions. The top 10 employment gaps for administrative occupations include first-line supervisors of office workers, customer service representatives, stock clerks and order fillers, hotel desk clerks, executive secretaries, bookkeeping, accounting and auditing clerks, secretaries administrative assistants (except legal, medical, and executive), tellers, medical secretaries, and general office clerks. The median wage for the top 10 employment



gaps in administrative occupations ranged from \$11.02 per hour to \$25.03 per hour. Minimum education for these occupations ranged from high school diploma to some college. More information can be found in Table 18 and Chart 7.

Table 18: Office and Administrative Support Occupations Summer 2018						
Occupation	Supply Gap	Current Employment	Median Wage	Minimum Education		
First-Line Supervisors of Office and Administrative Support Workers	-152	5,072	\$25.03	Some College		
Customer Service Representatives	-120	9,073	\$14.41	PS Adult Voc		
Stock Clerks and Order Fillers	-98	7,917	\$12.12	HS/GED		
Hotel, Motel, and Resort Desk Clerks	-84	1,120	\$11.02	HS/GED		
Executive Secretaries and Executive Administrative	-65	1,637	\$22.24	PS Adult Voc		
Bookkeeping, Accounting, and Auditing Clerks	-56	5,928	\$17.91	Some College		
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	-54	11,212	\$15.92	PS Adult Voc		
Tellers	-39	1,849	\$14.30	PS Adult Voc		
Medical Secretaries	-36	1,130	\$14.64	PS Adult Voc		
Office Clerks, General	-31	10,290	\$13.76	HS/GED		

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Maintenance Occupations**

The overall employment gap identified for maintenance occupations was approximately 605 positions. The top 10 employment gaps for maintenance occupations include general workers. first-line supervisors mechanics, automotive service technicians, bus and truck mechanics. automotive body repairers, heating, air conditions, and refrigeration mechanics, installation, maintenance workers (all other), security and fire alarm systems installers, telecommunications equipment installers, and farm equipment mechanics

-9 Farm Equipment Mechanics and Service... Telecommunications Equipment Installers and... -13 -13 Security and Fire Alarm Systems Installers Installation, Maintenance, and Repair Workers, All. -15 Heating, Air Conditioning, and Refrigeration... -26 -26 Automotive Body and Related Repairers Bus and Truck Mechanics and Diesel Engine... **Automotive Service Technicians and Mechanics** First-Line Supervisors of Mechanics, Installers, and. Maintenance and Repair Workers, General -262

0

Chart 8: Supply Gap for Maintenance, Summer 2018

and service technicians. The median wage for the top 10 employment gaps in maintenance occupations ranged from \$15.66 per hour to \$28.18 per hour. Minimum education for these occupations ranged from high school diploma to post-secondary adult vocational. More information can be found in Table 19 and Chart 8.

-150

-100

-50

-300

-250



-200

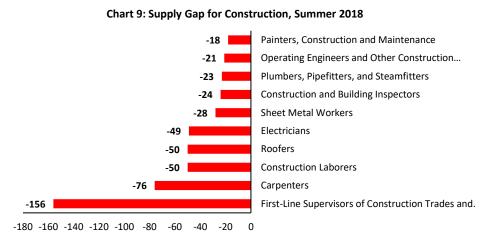


Table 19: Installation, Maintenance, and Repair Occupations  Summer 2018					
Occupation	Supply Gap	Current	Median	Minimum	
		Employment	Wage	Education	
Maintenance and Repair Workers, General	-262	5,694	\$17.27	PS Adult Voc	
First-Line Supervisors of Mechanics, Installers, and Repairers	-81	1,726	\$28.18	PS Adult Voc	
Automotive Service Technicians and Mechanics	-57	3,380	\$18.78	PS Adult Voc	
Bus and Truck Mechanics and Diesel Engine Specialists	-48	544	\$21.53	PS Adult Voc	
Automotive Body and Related Repairers	-26	690	\$19.36	PS Adult Voc	
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	-26	2,948	\$19.25	PS Adult Voc	
Installation, Maintenance, and Repair Workers, All Other	-15	2,024	\$15.66	HS/GED	
Security and Fire Alarm Systems Installers	-13	397	\$20.92	PS Adult Voc	
Telecommunications Equipment Installers and Repair	-13	529	\$26.39	PS Adult Voc	
Farm Equipment Mechanics and Service Technicians	-9	144	\$18.35	PS Adult Voc	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Construction Occupations**

The overall employment gap identified for construction occupations approximately 566 positions. The top 10 employment gaps for construction occupations include first-line supervisors construction trades, carpenters, construction laborers, roofers, electricians, sheet metal workers, construction and building inspectors, plumbers, operating engineers, and painters, construction and maintenance. The median wage for the top employment gaps in construction occupations ranged from \$14.11 per hour to \$27.50 per hour.



Minimum education for these occupations ranged from less than high school to some college. More information can be found in Table 20 and Chart 9.

Table 20: Construction and Extraction Occupations  Summer 2018					
Occupation	Supply Gap	Current Employment	Median Wage	Minimum Education	
First-Line Supervisors of Construction Trades and Extraction Workers	-156	4,772	\$27.50	Some College	
Carpenters	-76	7,417	\$18.45	PS Adult Voc	
Construction Laborers	-50	9,080	\$14.11	Less HS/GED	
Roofers	-50	2,013	\$15.56	PS Adult Voc	
Electricians	-49	3,049	\$21.18	PS Adult Voc	
Sheet Metal Workers	-28	395	\$17.52	PS Adult Voc	
Construction and Building Inspectors	-24	540	\$26.78	PS Adult Voc	
Plumbers, Pipefitters, and Steamfitters	-23	2,226	\$18.95	PS Adult Voc	
Operating Engineers and Other Construction Equipment Operators	-21	1,287	\$18.18	PS Adult Voc	
Painters, Construction and Maintenance	-18	3,945	\$14.82	PS Adult Voc	



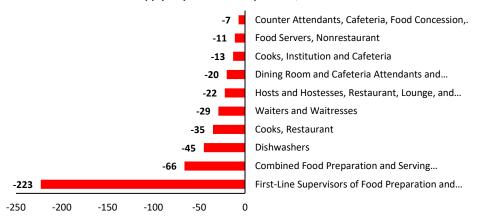




#### **Food Preparation Occupations**

The overall employment gap identified for preparation occupations approximately 471 positions. The top 10 employment gaps for food preparation occupations include first-line supervisors of food preparation workers, food preparation and service workers. dishwashers, restaurant cooks, waiters and waitresses, hosts and hostesses, dining room and cafeteria attendants, cafeteria cooks, nonrestaurant food servers, and counter attendants. median wage for the top employment gaps in food preparation occupations

Chart 10: Supply Gap for Food Preparation, Summer 2018



ranged from \$9.45 per hour to \$16.31 per hour. Minimum education for these occupations ranged from less than high school to postsecondary adult vocational. More information can be found in Table 21 and Chart 10.

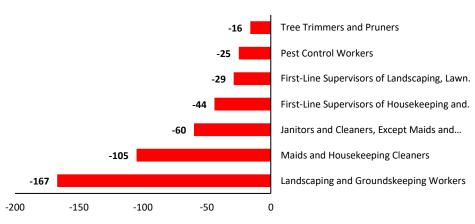
Table 21: Food Preparation and Service Occupations Summer 2018					
Occupation	Supply Gap	Current Employment	Median Wage	Minimum Education	
First-Line Supervisors of Food Preparation and Serving Workers	-223	4,565	\$16.31	PS Adult Voc	
Combined Food Preparation and Serving Workers, Including Fast Food	-66	11,812	\$9.65	Less HS/GED	
Dishwashers	-45	2,594	\$10.39	Less HS/GED	
Cooks, Restaurant	-35	7,460	\$13.31	PS Adult Voc	
Waiters and Waitresses	-29	17,102	\$9.88	Less HS/GED	
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	-22	2,427	\$9.91	Less HS/GED	
Dining Room and Cafeteria Attendants and Bartender	-20	2,856	\$10.05	Less HS/GED	
Cooks, Institution and Cafeteria	-13	839	\$13.05	HS/GED	
Food Servers, Nonrestaurant	-11	982	\$9.70	Less HS/GED	
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	-7	2,588	\$9.45	Less HS/GED	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Building and Grounds Cleaning Occupations**

The overall employment gap identified for building and grounds cleaning occupations was approximately 446 positions. The top employment gaps for building and grounds cleaning occupations include landscaping and groundskeeping workers, maids and housekeeping cleaners, janitors and cleaners, first-line supervisors of housekeeping and janitorial workers, firstline supervisors of landscaping and groundskeeping workers, pest control workers, and tree trimmers and pruners. The median wage for the top employment gaps in building and grounds cleaning

Chart 11: Supply Gap for Building and Grounds Cleaning, Summer 2018



occupations ranged from \$11.08 per hour to \$23.90 per hour. Minimum education for these occupations ranged from less than high school diploma to post-secondary adult vocational. More information can be found in Table 22 and Chart 11.







#### **Table 22: Building and Grounds Cleaning Occupations Summer 2018** Median Current Minimum Occupation Supply Gap **Employment** Education Wage Landscaping and Groundskeeping Workers -167 14,003 \$11.96 Less HS/GED Maids and Housekeeping Cleaners -105 5,833 \$11.08 Less HS/GED Janitors and Cleaners, Except Maids and Housekeeping Cleaners -60 6,988 \$11.43 Less HS/GED First-Line Supervisors of Housekeeping and Janitorial Workers -44 924 \$20.99 PS Adult Voc First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers -29 2,094 \$23.90 PS Adult Voc -25 1,020 \$14.23 PS Adult Voc Pest Control Workers Less HS/GED Tree Trimmers and Pruners -16 \$13.25 N/R

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

Note: Numbers not reported denoted by N/R.

#### **Healthcare Practitioner Occupations**

The overall employment gap identified for healthcare practitioner occupations was approximately 358 positions. The top 10 employment for healthcare gaps practitioner occupations include physical therapists, speech-language pathologists, family and general practitioners, pharmacists, pharmacy technicians, occupational therapists, physician assistants, medical and clinical laboratory technologists, dietitians and nutritionists, and audiologists. The median wage for the top employment gaps in healthcare practitioner occupations ranged from

\$14.32 per hour to \$101.53 per hour. Minimum education for these occupations ranged from post-secondary adult vocational to doctorate degrees. More information can be found in Table 23 and Chart 12.

-100 -90 -80 -70 -60 -50 -40 -30 -20 -10

Table 23: Healthcare Practitioners and Technical Occupations  Summer 2018					
Occupation	Supply Gap	Current Employment	Median Wage	Minimum Education	
Physical Therapists	-88	855	\$44.10	Doctorate	
Speech-Language Pathologists	-34	359	\$41.33	Master's	
Family and General Practitioners	-29	735	\$101.53	Doctorate	
Pharmacists	-25	1,121	\$60.05	Doctorate	
Pharmacy Technicians	-25	1,673	\$14.32	PS Adult Voc	
Occupational Therapists	-20	316	\$44.92	Master's	
Physician Assistants	-18	396	\$49.48	Bachelor's	
Medical and Clinical Laboratory Technologists	-16	540	\$28.96	Some College	
Dietitians and Nutritionists	-14	135	\$28.21	Bachelor's	
Audiologists	-13	N/R	\$39.50	Doctorate	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

Note: Numbers not reported denoted by N/R.







#### **Business Occupations**

The overall employment gap identified for business occupations was approximately 354 positions. The top 10 employment gaps for business occupations include accountant and auditors, loan officers, market research analysts, human resource specialists, personal financial advisors, business operations specialists, purchasing agents (except wholesale, retail, and farm products), claim adjusters, financial analysts, and training and development specialists. The median wage for the top employment gaps in business occupations ranged from \$24.75

Chart 13: Supply Gap for Business, Summer 2018



per hour to \$57.81 per hour. Minimum education for these occupations ranged from post-secondary adult vocational to Bachelor's degree. More information can be found in Table 24 and Chart 13.

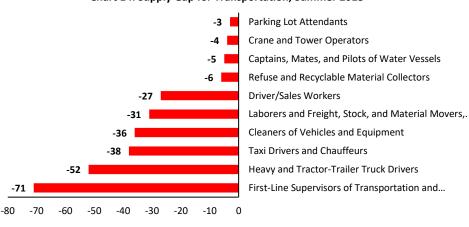
Table 24: Business and Financial Occupations  Summer 2018					
Occupation	Median	Minimum			
Occupation	Supply Gap	Employment	Wage	Education	
Accountants and Auditors	-86	3,538	\$30.59	Bachelor's	
Loan Officers	-56	818	\$35.51	Some College	
Market Research Analysts and Marketing Specialists	-46	712	\$29.07	Bachelor's	
Human Resources Specialists	-36	1,236	\$27.06	Some College	
Personal Financial Advisors	-28	862	\$57.81	Bachelor's	
Business Operations Specialists, All Other	-23	3,044	\$30.65	Some College	
Purchasing Agents, Except Wholesale, Retail, and Farm Products	-19	536	\$24.75	Some College	
Claims Adjusters, Examiners, and Investigators	-15	333	\$29.32	PS Adult Voc	
Financial Analysts	-13	371	\$30.26	Bachelor's	
Training and Development Specialists	-12	412	\$26.31	Bachelor's	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Transportation Occupations**

The overall employment gap identified for transportation occupations was approximately 283 positions. The top employment gaps for transportation occupations include first-line supervisors of transportation machine operators, heavy truck drivers, taxi drivers, cleaners of vehicles and equipment, laborers and stock movers, drivers/sales workers, refuse and recyclable material collectors, captains, mates, and pilots of water vessels, crane and tower operators, and parking lot attendants. The median wage for the top employment gaps in

Chart 14: Supply Gap for Transportation, Summer 2018



transportation occupations ranged from \$9.68 per hour to \$27.75 per hour. Minimum education for these occupations ranged from less than high school to post-secondary adult vocational. More information can be found in Table 25 and Chart 14.







#### **Table 25: Transportation and Material Moving Occupations** Summer 2018 Median Supply Current Minimum Occupation **Employment** Education Gap Wage First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators -71 466 \$27.49 PS Adult Voc Heavy and Tractor-Trailer Truck Drivers -52 3,813 \$18.28 PS Adult Voc Taxi Drivers and Chauffeurs -38 948 \$11.27 Less HS/GED Cleaners of Vehicles and Equipment -36 2,460 \$10.32 Less HS/GED Laborers and Freight, Stock, and Material Movers, Hand -31 5,435 \$11.27 Less HS/GED -27 HS/GED Driver/Sales Workers 2,079 \$9.68 Refuse and Recyclable Material Collectors Less HS/GED -6 210 \$14.61 Captains, Mates, and Pilots of Water Vessels -5 168 \$18.18 PS Adult Voc **Crane and Tower Operators** -4 207 \$27.75 PS Adult Voc

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Management Occupations**

**Parking Lot Attendants** 

The overall employment gap identified for management occupations was approximately 225 positions. The top 10 employment gaps for management occupations include health service managers, financial managers, public relations and fundraising managers, education lodging managers, administrators, natural sciences managers, architectural and engineering postsecondary managers, education administrators, agricultural managers, and gaming managers. The median wage for the top employment gaps in management

-1 **Gaming Managers** Farmers, Ranchers, and Other Agricultural.. -4 -5 -5 **Natural Sciences Managers** -10

405

Less HS/GED

\$10.45



Chart 15: Supply Gap for Management, Summer 2018

-3

occupations ranged from \$23.79 per hour to \$57.85 per hour. Minimum education for these occupations ranged from post-secondary adult vocational to Bachelor's degree. More information can be found in Table 26 and Chart 15.

Table 26: Management Occupations  Summer 2018					
Occupation	Supply Gap	Current Employment	Median Wage	Minimum Education	
Medical and Health Services Managers	-92	591	\$50.90	Bachelor's	
Financial Managers	-67	864	\$57.47	Bachelor's	
Public Relations and Fundraising Managers	-17	57	\$49.12	Bachelor's	
Lodging Managers	-12	395	\$23.79	Some College	
Education Administrators, Elementary and Secondary	-11	292	\$51.68	Bachelor's	
Natural Sciences Managers	-10	50	\$42.89	Bachelor's	
Architectural and Engineering Managers	-5	223	\$57.85	Bachelor's	
Education Administrators, Postsecondary	-5	37	\$57.68	Bachelor's	
Farmers, Ranchers, and Other Agricultural Managers	-4	7,463	\$49.75	Some College	
Gaming Managers	-1	N/R	N/R	PS Adult Voc	

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

Note: Numbers not reported denoted by N/R.







#### LONG-TERM AVERAGE ANNUAL EMPLOYMENT GROWTH BY OCCUPATION, 2017 TO 2025

Beginning in 2018, the Bureau of Labor Statistics introduced a new methodology for producing occupation growth projections. The old method used for occupation estimations attempted to project occupational openings due economic growth, as well as replacement openings due to employees exiting the labor force. However, the estimations did not consider openings that occurred when employees moved from one occupation to another, and often resulted in an undercounting of total needed replacements. The new method is designed to provide better estimates by using demographic and other longitudinal data from Current Population Survey monthly data, and to account for openings that result as employees move from one occupation to another. Therefore, it is important to exercise caution when comparing projected occupational growth figures in this section and the next section to previous Workforce Now reports.

The forecast below provides additional information about expected annual occupational demands for the Southwest Florida region. Information is presented for the top 10 growth occupations along with the current hourly wage and educational requirements. The top 10 employment growth occupations are retail salespersons, waiters and waitresses, cashiers, food preparation and serving workers, landscaping and groundskeepers, customer service representatives, office clerks, secretaries and administrative assistants, restaurant cooks, and construction laborers.

Table 27 provides the average annual growth for the top 10 employment growth occupations, along with the current median wage and minimum educational requirement. The top 10 growth occupations primarily reflect expected increases in retail, tourism, food preparation, and construction. Four of the top growth occupations require less than a high school degree, three require a high school degree or GED, and three require adult vocational training. Median wages varied from \$9.38 per hour to \$15.92 per hour and were highly correlated with the required minimum education.

A complete list of the top 50 long-term annual employment growth occupations in Southwest Florida can be found in the Appendix.

Table 27: Top 10 Long-Term Employment Growth Occupations					
2017 to 2025					
Occupation	Average Annual Growth	Current Employment	Median Wage	Minimum Education	
Retail Salespersons	4,355	24,294	\$11.15	HS/GED	
Waiters and Waitresses	3,477	17,102	\$9.88	Less HS/GED	
Cashiers	3,154	15,635	\$9.38	HS/GED	
Combined Food Preparation and Serving Workers, Including Fast Food	2,544	11,812	\$9.65	Less HS/GED	
Landscaping and Groundskeeping Workers	2,022	14,003	\$11.96	Less HS/GED	
Customer Service Representatives	1,376	9,073	\$14.41	PS Adult Voc	
Office Clerks, General	1,351	10,290	\$13.76	HS/GED	
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,348	11,212	\$15.92	PS Adult Voc	
Cooks, Restaurant	1,302	7,460	\$13.31	PS Adult Voc	
Construction Laborers	1,220	9,080	\$14.11	Less HS/GED	







#### TOP GROWTH OCCUPATIONS BY MINIMUM EDUCATIONAL REQUIREMENT

The study looked at long-run occupational growth by identifying the fastest-growing occupations by the minimal educational requirement including:

- ✓ Post-secondary adult vocational
- ✓ Some college
- √ Bachelor's degree
- ✓ Master's degree
- ✓ Doctorate

#### **Post-Secondary Adult Vocational**

The expected top 10 long-run growth occupations requiring a minimum of post-secondary adult vocational training are customer service representatives, secretaries and administrative assistants, restaurant cooks, first-line supervisors of retail sales, nursing assistants, carpenters, first-line supervisors of food preparation workers, maintenance and repair workers, hairdressers and hairstylists, and wholesale and manufacturing sales representatives. The top 20 average annual growth occupations for adult vocational, along with the median wage and current employment, can be found in Table 28.

	Table 28: Adult Vocational Long-term Growth Occupations					
	2017 to 2025					
#	Occupation	Average Annual Growth	Current Employment	Median Wage		
1	Customer Service Representatives	1,376	9,073	\$14.41		
2	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,348	11,212	\$15.92		
3	Cooks, Restaurant	1,302	7,460	\$13.31		
4	First-Line Supervisors of Retail Sales Workers	1,022	8,160	\$20.10		
5	Nursing Assistants	1,019	6,538	\$13.24		
6	Carpenters	867	7,417	\$18.45		
7	First-Line Supervisors of Food Preparation and Serving Workers	754	4,565	\$16.31		
8	Maintenance and Repair Workers, General	634	5,694	\$17.27		
9	Hairdressers, Hairstylists, and Cosmetologists	557	3,702	\$13.52		
10	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	555	4,626	\$22.91		
11	Childcare Workers	537	3,234	\$10.89		
12	Security Guards	536	3,463	\$12.63		
13	Personal Care Aides	529	2,616	\$10.84		
14	Medical Assistants	497	3,232	\$15.97		
15	Painters, Construction and Maintenance	486	3,945	\$14.82		
16	Heavy and Tractor-Trailer Truck Drivers	482	3,813	\$18.28		
17	Light Truck or Delivery Services Drivers	429	3,387	\$14.42		
18	Automotive Service Technicians and Mechanics	385	3,380	\$18.78		
19	Home Health Aides	365	2,059	\$12.28		
20	Electricians	354	3,049	\$21.18		







#### **Some College**

The forecast top 10 occupations for growth from 2017 to 2025 requiring a minimum of "some college" are registered nurses, bookkeeping, accounting, and auditing clerks, first-line supervisors of office and administrative support workers, first-line supervisors of construction workers, farmers and ranchers, general and operation managers, business operation specialists, recreation workers, construction managers, and property and real estate managers. The top 20 average annual growth occupations for "some college", along with the median wage and current employment, can be found in Table 29.

	Table 29: Some College Long-term Growth Occupations							
	2017 to 2025							
#	Occupation	Average Annual Growth	Current Employment	Median Wage				
1	Registered Nurses	866	10,434	\$31.18				
2	Bookkeeping, Accounting, and Auditing Clerks	648	5,928	\$17.91				
3	First-Line Supervisors of Office and Administrative Support Workers	588	5,072	\$25.03				
4	First-Line Supervisors of Construction Trades and Extraction Workers	568	4,772	\$27.50				
5	Farmers, Ranchers, and Other Agricultural Managers	546	7,463	\$49.75				
6	General and Operations Managers	433	4,275	\$50.64				
7	Business Operations Specialists, All Other	342	3,044	\$30.65				
8	Recreation Workers	235	1,206	\$11.88				
9	Construction Managers	234	2,713	\$39.23				
10	Property, Real Estate, and Community Association Managers	233	2,414	\$28.10				
11	First-Line Supervisors of Non-Retail Sales Workers	177	1,656	\$30.61				
12	Managers, All Other	145	1,677	\$39.10				
13	Cost Estimators	142	1,190	\$26.47				
14	Human Resources Specialists	141	1,236	\$27.06				
15	Food Service Managers	129	1,059	\$29.77				
16	Preschool Teachers, Except Special Education	95	831	\$12.04				
17	Software Developers, Applications	93	973	\$32.37				
18	Postsecondary Teachers, All Other	92	789	\$37.38				
19	Graphic Designers	88	781	\$18.08				
20	Loan Officers	83	818	\$35.51				







#### **Bachelor's Degree**

The forecast top 10 occupations for growth from 2017 to 2025 requiring a bachelor's degree include elementary school teachers, accountants and auditors, management analysts, secondary school teachers, middle school teachers, financial service sales agents, clergy, market research analysts, personal financial advisors, and kindergarten teachers. The top 20 average annual growth occupations for bachelor's degree, along with the median wage and current employment, can be found in Table 30.

Table 30: Bachelor's Degree Long-term Growth Occupations 2017 to 2025 **Average Annual** Current # Occupation **Median Wage** Growth **Employment** 1 Elementary School Teachers, Except Special Education 405 4,142 \$29.71 398 2 **Accountants and Auditors** 3,538 \$30.59 256 \$40.24 3 Management Analysts 1,944 4 215 Secondary School Teachers, Except Special and Career/Technical Education 2,280 \$30.75 5 Middle School Teachers, Except Special and Career/Technical Education 190 1,945 \$29.74 Securities, Commodities, and Financial Services Sales Agents \$29.60 6 133 1,353 7 108 887 \$19.96 712 Market Research Analysts and Marketing Specialists \$29.07 8 98 9 Personal Financial Advisors 96 862 \$57.81 Kindergarten Teachers, Except Special Education 10 89 769 \$29.49 11 Civil Engineers 83 737 \$40.52 **Financial Managers** 864 \$57.47 12 83 13 Special Education Teachers, All Other 83 876 \$31.44 **Chief Executives** \$96.19 14 75 884 15 **Public Relations Specialists** 67 522 \$24.53 Medical and Health Services Managers 591 \$50.90 16 64 17 Music Directors and Composers 56 509 \$24.55 Sales Managers 496 \$60.00 18 19 Directors, Religious Activities and Education 49 363 \$19.26

46

412

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

**Training and Development Specialists** 







\$26.31

# **Master's Degree**

The forecast top 10 occupations for growth from 2017 to 2025 requiring a master's degree include family and school social workers, educational and school counselors, instructional coordinators, healthcare social workers, architects, nurse practitioners, librarians, speech-language pathologists, occupational therapists, and mental health and substance abuse social workers. The top 20 average annual growth occupations for master's degree, along with the median wage and current employment, can be found in Table 31.

	Table 31: Master's Degree Long-term Growth Occupations								
#	# Occupation Average Annual Growth Current Employment Median Wage								
1	Child, Family, and School Social Workers	98	743	\$17.68					
2	Educational, Guidance, School, and Vocational Counselors	61	480	\$32.89					
3	Instructional Coordinators	48	430	\$27.20					
4	Healthcare Social Workers	44	301	\$23.69					
5	Architects, Except Landscape and Naval	42	401	\$31.57					
6	Nurse Practitioners	36	352	\$45.16					
7	Librarians	35	315	\$30.04					
8	Speech-Language Pathologists	29	359	\$41.33					
9	Occupational Therapists	27	316	\$44.92					
10	Mental Health and Substance Abuse Social Workers	26	194	\$22.55					
11	Counselors, All Other	22	144	\$19.61					
12	Marriage and Family Therapists	20	144	\$22.09					
13	Operations Research Analysts	19	188	\$27.37					
14	Nurse Anesthetists	15	195	\$72.97					
15	Mental Health Counselors	11	75	\$18.46					
16	Psychologists, All Other	10	93	\$46.99					
17	Art, Drama, and Music Teachers, Postsecondary	9	77	\$34.68					
18	Health Diagnosing and Treating Practitioners, All Other	7	97	\$30.48					
19	Nursing Instructors and Teachers, Postsecondary	7	57	\$40.19					
20	Curators	6	48	\$27.15					







## **Doctorate**

The forecast top 10 occupations for growth from 2017 to 2025 requiring a doctorate include lawyers, pharmacists, physical therapists, family and general practitioners, postsecondary health specialties teachers, clinical, counseling and school psychologists, veterinarians, medical scientists, postsecondary math teachers, and postsecondary biology teachers. The top 19 average annual growth occupations for doctorates, along with the median wage and current employment, can be found in Table 32.

	Table 32: Doctorate Long-term Growth Occupations						
	2017 to 2025						
#	Occupation	<b>Average Annual Growth</b>	<b>Current Employment</b>	Median Wage			
1	Lawyers	147	2,343	\$49.24			
2	Pharmacists	73	1,121	\$60.05			
3	Physical Therapists	69	855	\$44.10			
4	Family and General Practitioners	38	735	\$101.53			
5	Health Specialties Teachers, Postsecondary	24	191	\$33.32			
6	Clinical, Counseling, and School Psychologists	23	206	\$48.57			
7	Veterinarians	22	338	\$40.03			
8	Medical Scientists, Except Epidemiologists	18	156	\$34.65			
9	Mathematical Science Teachers, Postsecondary	14	115	\$35.42			
10	Biological Science Teachers, Postsecondary	13	102	\$40.97			
11	English Language and Literature Teachers, Postsecondary	13	112	\$27.40			
12	Education Teachers, Postsecondary	12	107	\$41.39			
13	Psychology Teachers, Postsecondary	7	60	\$33.51			
14	Chemistry Teachers, Postsecondary	6	48	\$40.24			
15	Communications Teachers, Postsecondary	6	55	\$38.49			
16	Economics Teachers, Postsecondary	4	31	\$50.78			
17	History Teachers, Postsecondary	4	37	\$36.84			
18	Foreign Language and Literature Teachers, Postsecondary	3	23	\$32.53			
19	Physics Teachers, Postsecondary	2	15	\$47.48			







## STEM OCCUPATIONS AND SOUTHWEST FLORIDA

The study looked at the short-term demand and long-term growth for the Science, Technology, Engineering, and Math (STEM) occupations in Southwest Florida.

The analysis of STEM occupations is important for two reasons. First, STEM occupations are typically associated with higher wages. A study conducted by the U.S. Bureau of Labor Statistics found that "the national average wage for all STEM occupations was \$87,570, nearly double the national average wage for non-STEM occupations." It also concluded that 93 out of 100 STEM occupations had a higher average wage than the national average, measured at \$48,320. Second, with advancements in technology, STEM occupations have enjoyed above-average growth compared to non-STEM occupations, while also being projected to continue growing in the future. The same Bureau of Labor Statistics study found that STEM occupations had grown by 10.5 percent between May 2009 and May 2015, while non-STEM occupations grew by 5.2 percent over the same period.

In this section, we look at STEM openings in Southwest Florida, the current supply gap for STEM occupations, the STEM supply gap by minimum educational level, and the projected STEM occupation growth. STEM occupations were defined by the Florida Department of Economic Opportunity's Occupational Supply/Demand Report.

# **STEM Openings in Southwest Florida**

Table 33 and Chart 16 show the distribution of STEM openings to all occupations in Southwest Florida and the state of Florida. In the Summer of 2018, 25 percent of all job openings (or 57,705 total openings) were for occupations defined as STEM occupations, while 75 percent were for non-STEM occupations. Southwest Florida had a lower percentage of STEM occupation openings, with only 14 percent (1,516 total openings), while the other 86 percent were for non-STEM occupations.

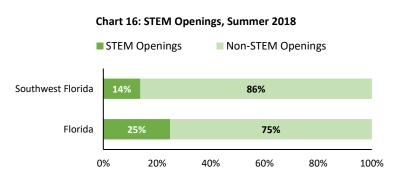


Table 33: STEM Openings					
	Summer 2018				
Openings	Southwest Florida	Florida			
STEM Openings	1,516	57,705			
Total Openings	11,019	231,837			
Percentage	14%	25%			

<sup>&</sup>lt;sup>1</sup> U.S. Bureau of Labor Statistics, STEM Occupations: Past, Present, and Future, January 2017

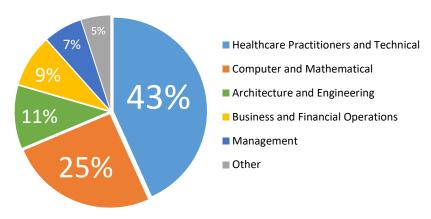






Table 34 and Chart 17 show the distribution of STEM openings Southwest Florida, parsed by occupation group. The healthcare practitioners and technical occupation group had the most job openings in Summer 2018, measured at 656 total job openings. represented 43 percent of all STEM openings in Southwest Florida. The next largest was computer and mathematical occupations (385 openings, or 25 percent of all STEM openings), followed by architecture and engineering openings, or 11 percent of all STEM

Chart 17: STEM Openings by Occupational Group, Summer 2018



openings), business and financial operations (135 openings, or 9 percent of all STEM openings), and management (100 openings, or 7 percent of all STEM openings).

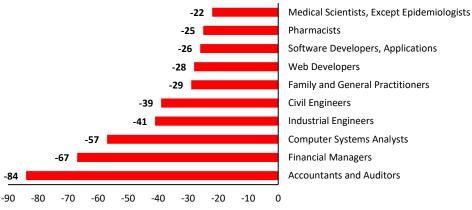
Table 34: STEM Openings by Occupational Group						
	Summer 2018					
Occupation Category	Job Openings	Percentage				
Healthcare Practitioners and Technical	656	43%				
Computer and Mathematical	385	25%				
Architecture and Engineering	164	11%				
<b>Business and Financial Operations</b>	135	9%				
Management	100	7%				
Other	76	5%				
Total	1,516	100%				

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

#### **Supply Gap for STEM Occupations**

The top 10 employment gaps for STEM occupations were accountants and auditors, financial managers, computer systems analysts, industrial engineers, civil family engineers, and general practitioners, web developers, software developers, pharmacists, and medical scientists. The supply gap, current employment levels, median wages, and minimum education for the top STEM occupations can be found in table 34. The median wage for these occupations ranged between \$22.88 and \$101.53, while minimum education levels ranged

Chart 18: Supply Gap for STEM Occupations, Summer 2018



from post-secondary adult vocational training to doctorate.







#### **Table 35: Top STEM Employment Gaps Summer 2018 Current Supply** Current Median **Minimum Education** Occupation Gap **Employment** Wage **Accountants and Auditors** -84 3,538 \$30.59 Bachelor's **Financial Managers** -67 \$57.47 Bachelor's 864 **Computer Systems Analysts** -57 451 \$33.47 Some College **Industrial Engineers** -41 191 \$31.04 Bachelor's Civil Engineers Bachelor's -39 737 \$40.52 Family and General Practitioners -29 735 \$101.53 Doctorate Web Developers -28 266 \$22.88 PS Adult Voc Software Developers, Applications \$32.37 Some College -26 973 **Pharmacists** -25 1,121 \$60.05 Doctorate

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

# **STEM Occupation Supply Gap by Minimum Education**

Medical Scientists, Except Epidemiologists

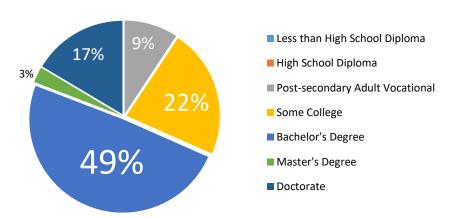
Table 36 and Chart 19 look at the STEM employment gaps when sorted by minimum education levels. STEM Occupations with a minimum education of bachelor's degree had the largest supply gap in Southwest Florida, measured at -344. This represented 49 percent of the total gap for the region. The next largest were occupations that required at least some college (-156, 22 percent of total supply gap), followed by doctorate (-155, 17 percent of total supply gap), post-secondary adult vocational (-65, 9 percent of total gap), and master's degree (-19, 3

Chart 19: STEM Employment Gaps by Minimum Education, Summer 2018

156

\$34.65

Doctorate



percent of total gap). There were no STEM occupation that required at least a high school diploma or below.

Table 36: STEM Employment Gaps by Minimum Education					
Minimum Education Level	Summer 2018  Current Supply Gap	Current Employment	Weighted Average Median Wage		
Less than High School Diploma	0	0	\$0.00		
High School Diploma	0	0	\$0.00		
Post-secondary Adult Vocational	-65	1,616	\$22.08		
Some College	-156	5,118	\$30.43		
Bachelor's Degree	-344	7,974	\$35.46		
Master's Degree	-19	765	\$38.01		
Doctorate	-115	2,806	\$63.23		
Total	-699	18,279			

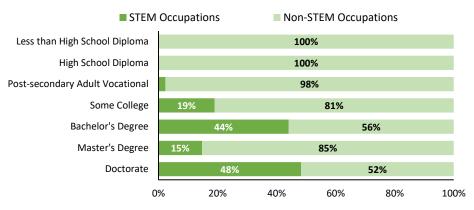






Table 37 and Chart 20 look at the distribution between STEM occupation and non-STEM occupation supply gaps, broken down by minimum when education levels. Forty-eight percent of the total supply gap for occupations requiring a doctorate were for STEM occupations, the highest proportion in the region. The Bachelor's degree was the next highest proportion for STEM occupations (44 percent), followed by some college (19 percent), master's degree (15 percent), and post-secondary adult vocational (2 percent).

Chart 20: Employment Gaps by Minimum Education, Summer 2018



hundred percent of the total supply gap for occupations requiring less than high school diploma and a high school diploma were for non-STEM occupations.

Table 37: Employment Gaps by Minimum Education							
Summer 2018							
Minimum Education Level	ply Gap	— Percent STEM					
Willimani Education Level	STEM Occupations	All Occupations	= Percent 31Livi				
Less than High School Diploma	0	-831	0%				
High School Diploma	0	-976	0%				
Post-secondary Adult Vocational	-65	-2761	2%				
Some College	-156	-821	19%				
Bachelor's Degree	-344	-780	44%				
Master's Degree	-19	-129	15%				
Doctorate	-115	-238	48%				
Total	-699	-6,536	11%				

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

# **Projected STEM Occupation Growth**

Table 38 and Chart 21 show the projected occupational growth for occupations between the years 2017 and 2025. Registered nurses are projected to have the highest average annual growth in Southwest Florida (866 openings per year), followed by accountants and auditors (398 openings per year), cost estimators (142 openings per year), software developers (93 openings per year), computer user support specialists (92 openings per year), civil engineers (83 openings per year), financial managers (83 openings per year), pharmacists (73

Chart 21: Projected Occupational Growth for STEM Occupations, 2017 to 2025 **Registered Nurses** Accountants and Auditors 398 **Cost Estimators** 142 Software Developers, Applications 93 **Computer User Support Specialists** 92 Civil Engineers 83 **Financial Managers** 83 **Pharmacists** 73 Medical Equipment Repairers 68 **Dental Hygienists** 66 400 800 1.000 200 600

openings per year), medical equipment repairers (68 openings per year), and dental hygienists (66 openings per year). The median wage for these occupations ranges between \$19.82 per hour to \$60.05 per hour, and minimum education ranges between post-secondary adult vocational to doctorate.







**Table 38: Top 10 Long-Term STEM Employment Growth Occupations** 2017 to 2025

Occupation	Average Annual Growth	Current Employment	Median Wage	Minimum Education
Registered Nurses	866	10,434	\$31.18	Some College
Accountants and Auditors	398	3,538	\$30.59	Bachelor's
Cost Estimators	142	1,190	\$26.47	Some College
Software Developers, Applications	93	973	\$32.37	Some College
Computer User Support Specialists	92	920	\$19.82	PS Adult Voc
Civil Engineers	83	737	\$40.52	Bachelor's
Financial Managers	83	864	\$57.47	Bachelor's
Pharmacists	73	1,121	\$60.05	Doctorate
Medical Equipment Repairers	68	557	\$20.82	PS Adult Voc
Dental Hygienists	66	749	\$34.09	Some College







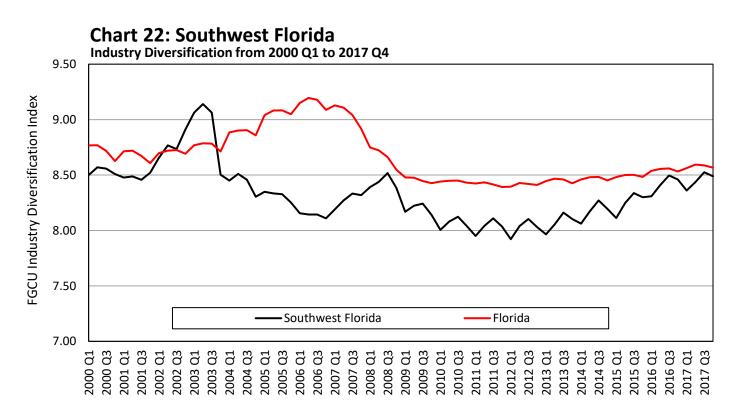
#### INDUSTRY DIVERSIFICATION INDEX

The FGCU Industry Diversification Index (IDI) is a measure of market concentration within a region. The IDI is computed quarterly by the Regional Economic Research Institute's Industry Diversification project, which tracks industry diversification by MSA, workforce region, and state.

The team computed the IDI for Southwest Florida's workforce in an effort to track, over time, its degree of workforce diversity based on the assumption that a more diverse labor market (in which most jobs are spread out among many industries) would have a higher IDI, and a less diverse one (in which most jobs are concentrated in a few industries) would have a lower IDI.

Industry diversification is an important factor explaining our state and region's tendency to overheat during expansions in the business cycle and overcorrect during contractions in the business cycle.

As shown in Chart 22, Southwest Florida's workforce became less diversified in the years leading up to the 2008 recession. The decline in concentration from second quarter of 2003 to the first quarter of 2007 is recorded by the IDI decreasing from 9.14 to 8.19, a decrease of 10 percent. However, the increase in concentration that followed can be explained (partly) by the contraction of the construction industry (beginning prior to the recession), as well as by reductions in the labor force by other industries that contributed to workforce concentration during the boom. Since the recession, we see now that the region has a seasonal trend, with the peak quarters occurring between April and September (off-season) and the low points occurring between October and March (season). The lower measures are explained by the influx of tourism and seasonal residents during the winter season, increasing demand for retail trade and accommodation and food service jobs. This increase makes Southwest Florida more concentrated in these industries, therefore dropping the IDI.



The index also reflects structural changes to Southwest Florida's economy that have occurred since 2008. According to data released by the U.S. Census Bureau in December 2016, the state of Florida lost 340,000 manufacturing jobs and almost 150,000 construction jobs during the recession. Although these industries have started to recover, they are the types of industries that promote a balanced







labor force and many workers who lost those jobs ended leaving the state, finding employment in other sectors, or leaving the labor force entirely. The effects of these statewide trends are reflected in a marked decrease in diversification in our region. From 2000 to 2004, Southwest Florida's average annual level of diversification was 8.63. From 2013 to 2017, this average fell to 8.27, or 4.1 percent. In contrast, the state overall saw a decrease in diversification by 2.7 percent for the same time periods. IDI measures for the region, state, and country are presented in Table 38 below. For more information on industry diversity, see the web site of the Industry Diversification Project, at lutgert.fgcu.edu/IDP.

Table 39: Average Annual Industry Diversification Index							
2000 to 2017							
Year	Southwest Florida	Florida	United States				
2000	8.534	8.720	8.495				
2001	8.486	8.678	8.565				
2002	8.767	8.709	8.686				
2003	8.942	8.762	8.763				
2004	8.430	8.887	8.827				
2005	8.316	9.064	8.862				
2006	8.138	9.153	8.884				
2007	8.278	9.049	8.878				
2008	8.432	8.670	8.801				
2009	8.193	8.457	8.664				
2010	8.062	8.443	8.638				
2011	8.035	8.416	8.664				
2012	8.024	8.414	8.699				
2013	8.071	8.449	8.671				
2014	8.175	8.468	8.690				
2015	8.249	8.492	8.681				
2016	8.419	8.546	8.655				
2017	8.453	8.578	8.642				

Source: FGCU Industry Diversification Index calculated by the RERI, using data obtained from the Quarterly Census of Employment and Wages.





## **SUMMARY AND CONCLUSIONS**

Education and training and other activities that improve human capital tend to lead to greater productivity and higher wages. Fourteen percent of the top 50 employment gaps identified an education requirement less than high school with a weighted average median wage in Southwest Florida of \$11.02 per hour. Adult vocational training covers a wide range of occupations and represented 44 percent of the top 50 employment gaps identified. The median wage for occupations requiring adult vocational training was higher at \$18.23. Some college or higher including an associate degree was required by 14 percent of the top 50 employment gaps with a median wage of \$29.61. The weighted average median wage reported below is based on all regional occupations reporting an employment gap. Since wages, serving as the price for labor, attract workers to different types of employment, we would expect those showing higher wage increases today to attract workers over time and thus place a downward pressure on employment gaps in the future.

Table 40: Occupations with Employment Gaps						
		2	017 to 2018			
	Percent of	Top 50 Employ	ment Gaps	Weighte	d Average Med	ian Wage
Minimum Education	2017	2018	Change	2017	2018	Change
Less HS/GED	12%	14%	2%	\$10.63	\$11.02	3.66%
HS/GED	10%	12%	2%	\$13.89	\$13.62	-2.00%
PS Adult Voc	42%	44%	2%	\$17.84	\$18.23	2.23%
Some College	12%	14%	2%	\$26.93	\$29.61	9.93%
Bachelor's	14%	14%	0%	\$32.51	\$32.97	1.42%
Master's or Higher	10%	0%	-10%	\$49.15	\$45.84	-6.72%

Source: Florida Department of Economic Opportunity and computed by the Regional Economic Research Institute

Note: Wages for all occupations utilize data pertaining to Southwest Florida except for those of Family and General Practitioners in 2017, for which the state median was utilized.

This study has provided an overview of Southwest Florida's labor market including the mix of industries, current employment gaps and forecast growth occupations. The quality, depth, and diversity of a region's workforce are critical components in fostering economic growth and development. The importance of this information in understanding what opportunities exist for students, parents, businesses, and educators will help foster discussion, better decisions, and more collaboration. Technology and globalization are driving change in our lives and employment opportunities. The Workforce Now research is designed to provide a continuous flow of research focused on Southwest Florida's labor market.







# **APPENDIX: TOP 50 OCCUPATIONAL EMPLOYMENT GAPS**

Below is a list of the top 50 occupational employment gaps identified in summer 2018.

# **Table 41: Top 25 Employment Gaps**

Summer 2018					
Occupation	Current	Current	Median	Minimum	
Occupation	Supply Gap	Employment	Wage	Education	
First-Line Supervisors of Retail Sales Workers	-385	8,160	\$20.10	PS Adult Voc	
Retail Salespersons	-379	24,294	\$11.15	HS/GED	
Maintenance and Repair Workers, General	-262	5,694	\$17.27	PS Adult Voc	
First-Line Supervisors of Food Preparation and Serving Workers	-223	4,565	\$16.31	PS Adult Voc	
Landscaping and Groundskeeping Workers	-167	14,003	\$11.96	Less HS/GED	
First-Line Supervisors of Construction Trades and Extraction Workers	-156	4,772	\$27.50	Some College	
First-Line Supervisors of Office and Administrative Support Workers	-152	5,072	\$25.03	Some College	
Customer Service Representatives	-120	9,073	\$14.41	PS Adult Voc	
Maids and Housekeeping Cleaners	-105	5,833	\$11.08	Less HS/GED	
Stock Clerks and Order Fillers	-98	7,917	\$12.12	HS/GED	
Medical and Health Services Managers	-92	591	\$50.90	Bachelor's	
Securities, Commodities, and Financial Services Sales Agents	-89	1,353	\$29.60	Bachelor's	
Security Guards	-89	3,463	\$12.63	PS Adult Voc	
Physical Therapists	-88	855	\$44.10	Doctorate	
Accountants and Auditors	-86	3,538	\$30.59	Bachelor's	
Hotel, Motel, and Resort Desk Clerks	-84	1,120	\$11.02	HS/GED	
First-Line Supervisors of Mechanics, Installers, and Repairers	-81	1,726	\$28.18	PS Adult Voc	
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	-77	4,626	\$22.91	PS Adult Voc	
Carpenters	-76	7,417	\$18.45	PS Adult Voc	
First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle	-71	466	\$27.49	PS Adult Voc	
Operators Insurance Sales Agents	-70	1,964	\$23.28	PS Adult Voc	
9	-70 -67	1,964 864	\$23.28 \$57.47	Bachelor's	
Financial Managers  Combined Food Preparation and Serving Workers, Including Fast Food	-67 -66	864 11,812	\$57.47 \$9.65	Less HS/GED	
		•	•	-	
Executive Secretaries and Executive Administrative	-65	1,637	\$22.24	PS Adult Voc	
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	-60	6,988	\$11.43	Less HS/GED	







Table 42: Ranked 26-50 Employment Gaps

Summer 2018

Occurrentia in	Current	Current	Median	Minimum
Occupation	Supply Gap	Employment	Wage	Education
Merchandise Displayers and Window Trimmers	-59	613	\$14.41	HS/GED
Automotive Service Technicians and Mechanics	-57	3,380	\$18.78	PS Adult Voc
Computer Systems Analysts	-57	451	\$33.47	Some College
Bookkeeping, Accounting, and Auditing Clerks	-56	5,928	\$17.91	Some College
Loan Officers	-56	818	\$35.51	Some College
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	-54	11,212	\$15.92	PS Adult Voc
Demonstrators and Product Promoters	-52	N/R	\$11.28	HS/GED
Heavy and Tractor-Trailer Truck Drivers	-52	3,813	\$18.28	PS Adult Voc
Construction Laborers	-50	9,080	\$14.11	Less HS/GED
Roofers	-50	2,013	\$15.56	PS Adult Voc
Electricians	-49	3,049	\$21.18	PS Adult Voc
Bus and Truck Mechanics and Diesel Engine Specialists	-48	544	\$21.53	PS Adult Voc
Market Research Analysts and Marketing Specialists	-46	712	\$29.07	Bachelor's
Social and Human Service Assistants	-46	562	\$16.09	PS Adult Voc
Dishwashers	-45	2,594	\$10.39	Less HS/GED
First-Line Supervisors of Housekeeping and Janitorial Workers	-44	924	\$20.99	PS Adult Voc
Sales Representatives, Services, All Other	-44	3,962	\$22.96	HS/GED
Real Estate Sales Agents	-42	2,887	\$31.08	PS Adult Voc
First-Line Supervisors of Non-Retail Sales Workers	-41	1,656	\$30.61	Some College
Industrial Engineers	-41	191	\$31.04	Bachelor's
Civil Engineers	-39	737	\$40.52	Bachelor's
Tellers	-39	1,849	\$14.30	PS Adult Voc
Personal Care Aides	-38	2,616	\$10.84	PS Adult Voc
Recreation Workers	-38	1,206	\$11.88	Some College
Taxi Drivers and Chauffeurs	-38	948	\$11.27	Less HS/GED







# APPENDIX: TOP 50 LONG-TERM AVERAGE ANNUAL EMPLOYMENT GROWTH BY OCCUPATION

Below is a list of the top 50 long-term employment growth occupations identified in summer 2018.

Table 43: Top 25 Long-Term	<b>Employment Growth Occupations</b>				
2017 to 2025					

2017 to 2025						
Occupation	Average Annual	Current	Median	Minimum		
	Growth	Employment	Wage	Education		
Retail Salespersons	4,355	24,294	\$11.15	HS/GED		
Waiters and Waitresses	3,477	17,102	\$9.88	Less HS/GED		
Cashiers	3,154	15,635	\$9.38	HS/GED		
Combined Food Preparation and Serving Workers, Including Fast Food	2,544	11,812	\$9.65	Less HS/GED		
Landscaping and Groundskeeping Workers	2,022	14,003	\$11.96	Less HS/GED		
Customer Service Representatives	1,376	9,073	\$14.41	PS Adult Voc		
Office Clerks, General	1,351	10,290	\$13.76	HS/GED		
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,348	11,212	\$15.92	PS Adult Voc		
Cooks, Restaurant	1,302	7,460	\$13.31	PS Adult Voc		
Construction Laborers	1,220	9,080	\$14.11	Less HS/GED		
Stock Clerks and Order Fillers	1,194	7,917	\$12.12	HS/GED		
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,084	6,988	\$11.43	Less HS/GED		
First-Line Supervisors of Retail Sales Workers	1,022	8,160	\$20.10	PS Adult Voc		
Nursing Assistants	1,019	6,538	\$13.24	PS Adult Voc		
Food Preparation Workers	1,015	4,993	\$11.27	Less HS/GED		
Maids and Housekeeping Cleaners	931	5,833	\$11.08	Less HS/GED		
Laborers and Freight, Stock, and Material Movers, Hand	878	5,435	\$11.27	Less HS/GED		
Carpenters	867	7,417	\$18.45	PS Adult Voc		
Registered Nurses	866	10,434	\$31.18	Some College		
Receptionists and Information Clerks	842	5,384	\$14.13	HS/GED		
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	804	5,614	\$9.57	Less HS/GED		
First-Line Supervisors of Food Preparation and Serving Workers	754	4,565	\$16.31	PS Adult Voc		
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	678	2,588	\$9.45	Less HS/GED		
Amusement and Recreation Attendants	671	2,613	\$10.07	Less HS/GED		
Bartenders	667	3,601	\$9.77	Less HS/GED		





Table 44: Ranked 26-50 Long-Term Employment Growth Occupations 2017 to 2025

Occupation	Average	Current	Median	Minimum
	Annual Growth	Employment	Wage	Education
Bookkeeping, Accounting, and Auditing Clerks	648	5,928	\$17.91	Some College
Maintenance and Repair Workers, General	634	5,694	\$17.27	PS Adult Voc
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	628	2,427	\$9.91	Less HS/GED
First-Line Supervisors of Office and Administrative Support Workers	588	5,072	\$25.03	Some College
First-Line Supervisors of Construction Trades and Extraction Workers	568	4,772	\$27.50	Some College
Hairdressers, Hairstylists, and Cosmetologists	557	3,702	\$13.52	PS Adult Voc
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	555	4,626	\$22.91	PS Adult Voc
Sales Representatives, Services, All Other	553	3,962	\$22.96	HS/GED
Farmers, Ranchers, and Other Agricultural Managers	546	7,463	\$49.75	Some College
Dining Room and Cafeteria Attendants and Bartender	540	2,856	\$10.05	Less HS/GED
Childcare Workers	537	3,234	\$10.89	PS Adult Voc
Security Guards	536	3,463	\$12.63	PS Adult Voc
Personal Care Aides	529	2,616	\$10.84	PS Adult Voc
Medical Assistants	497	3,232	\$15.97	PS Adult Voc
Painters, Construction and Maintenance	486	3,945	\$14.82	PS Adult Voc
Heavy and Tractor-Trailer Truck Drivers	482	3,813	\$18.28	PS Adult Voc
Dishwashers	445	2,594	\$10.39	Less HS/GED
Cleaners of Vehicles and Equipment	433	2,460	\$10.32	Less HS/GED
General and Operations Managers	433	4,275	\$50.64	Some College
Light Truck or Delivery Services Drivers	429	3,387	\$14.42	PS Adult Voc
Counter and Rental Clerks	411	2,721	\$12.81	HS/GED
Elementary School Teachers, Except Special Education	405	4,142	\$29.71	Bachelor's
Accountants and Auditors	398	3,538	\$30.59	Bachelor's
Automotive Service Technicians and Mechanics	385	3,380	\$18.78	PS Adult Voc
Home Health Aides	365	2,059	\$12.28	PS Adult Voc





