Future/Makers Coalition

Southwest Florida Workforce Overview Study 2017



December 2017

Prepared by the Research Team:





Johnson School 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 2024. 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 Workforce Now's numerous sponsors. We would also like to acknowledge Mei-Mei Chan, the former President and Publisher of the News-Press Media Group, whose past leadership and influence 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 fifth 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 2017
- 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 2017 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

- Economic recovery continues with employment and unemployment rates reaching levels closer to normal long-term values;
- Southwest Florida has 557,245 employed workers in 2016, compared to 9.36 million employed in Florida and 151.44 million for the nation:
- The average annual Southwest Florida wage is \$40,871 in 2016, compared to \$46,345 for Florida and \$53,503 for the nation;
- The largest industries by employment in 2016 are retail trade (18.6 percent, down from 19 percent last year), accommodation and food services (15.3 percent, down from 15.5 percent last year), health care and social assistance (13.9 percent, up from 13.8 percent last year), construction (11.4 percent, up from 10.6 percent last year), and administrative and waste services (7.5 percent, up from 7.1 percent last year);
- The largest industries by wage income in 2016 are health care and social assistance (17.2 percent, down from 17.6 percent last year), retail trade (13.5 percent, up from 13.9 percent last year), construction (12.2 percent, up from 11.1 percent last year), professional and technical services (8.7 percent, up from 8.6 percent last year), and accommodation and food services (8.3 percent, down from 8.4 percent last year);
- The fastest growing industries between 2012 and 2016 as measured by employment are construction (16,091, or 56.9 percent increase from 2012), accommodation and food services (11,310), retail trade (10,292), health care and social assistance (7,527), and administrative and waste services (7,431);
- The slowest growth industries from 2012 to 2016 have been agriculture, forestry, fishing, and hunting (-1,023), management of companies and enterprises (-528), information (-28), utilities (-10), and unclassified (30);
- The fastest growth industries between 2016 and 2024 are projected to be health care and social assistance adding 1,442 jobs per year, retail trade adding 1,274 jobs per year, construction adding 1,072 jobs per year, accommodation and food services adding 988 jobs per year, and self-employed and unpaid family workers adding 726 jobs per year.







Historic, Current, and Projected Employment by Industry

Category	Industry/Region	Metric	Annual Change	Percent Change
Employed Workers 2015	Southwest Florida	EE7 24E	10 222	3.3%
Employed Workers, 2016		557,245	18,222	
	Florida United States	9.4 Million 151.4 Million	0.3 Million 2.6 Million	2.8%
	Onited States	151.4 Million	2.6 Million	1.7%
Annual Wages, 2016	Southwest Florida	\$40,871	\$681	1.7%
	• Florida	\$46,345	\$781	1.7%
	• United States	\$53,503	\$717	1.4%
Largest Industries by	Retail Trade	72,423	1,816	2.6%
Employment, 2016	Accommodation and Food Services	59,715	2,001	3.5%
	Health Care and Social Assistance	54,094	2,616	5.1%
	• Construction	44,348	5,047	12.8%
	Administrative and Waste Services	29,299	2,840	10.7%
Largest Industries by Wages,	Health Care and Social Assistance	\$2.7 Billion	\$0.1 Million	4.3%
2016	Retail Trade	\$2.1 Billion	\$0.1 Million	3.6%
	Construction	\$1.9 Billion	\$0.3 Million	16.7%
	 Professional and Technical Services 	\$1.4 Billion	\$0.1 Million	7.7%
	Accommodation and Food Services	\$1.3 Billion	\$0.1 Million	5.9%
Fastest Growing Industries by	Construction	16,091	3,860	31.6%
Employment, 2012 to 2016 ^a	Accommodation and Food Services	11,310	-609	-5.1%
	Retail Trade	10,292	-449	-4.2%
	Health Care and Social Assistance	7,527	2,168	40.5%
	Administrative and Waste Services	7,431	2,104	39.5%
		, -		
Slowest Growing Industries by	 Agriculture, Forestry, Fishing and Hunting 	-1,023	-1,368	-396.5%
Employment, 2012 to 2016 ^a	 Management of Companies and Enterprises 	-528	-620	-673.9%
	Information	-28	-179	-118.5%
	• Utilities	-10	22	-68.8%
	Unclassified	30	12	66.7%
Fastest Projected Growing	Health Care and Social Assistance	1,442	-113	-7.3%
Industries by Employment,	Retail Trade	1,442	144	12.7%
2016 to 2024 ^b	Construction	1,274	-1,107	-50.8%
	Accommodation and Food Services	988	-152	-13.3%
	Self-Employed and Unpaid Family Workers		-1	-0.1%
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a Annual change and percent change compared to fastest/slowest growing industries by employment, 2011 to 2015 estimates.







b Annual change and percent change compared to fastest projected growing industries by Employment, 2015 to 2023 estimates.

Top 10 Short-Term Employment Gaps Summer 2017 Median Current **Minimum** Occupation **Current Employment Supply Gap** Wage Education \$20.52 First-Line Supervisors of Retail Sales Workers -407 8,261 PS Adult Voc 25,055 \$11.39 HS/GED -310 Retail Salespersons First-Line Supervisors of Food Preparation and Serving Workers -215 4,356 \$16.33 PS Adult Voc **Registered Nurses** -195 10,034 \$30.08 Some College Less HS/GED Landscaping and Groundskeeping Workers -166 13,058 \$11.24 Maintenance and Repair Workers, General -146 5,418 \$17.16 PS Adult Voc First-Line Supervisors of Construction Trades and Extraction Workers -129 3,838 \$27.48 Some College -98 First-Line Supervisors of Office and Administrative Support Workers 4,473 \$23.64 Some College 831 **Physical Therapists** -93 \$41.24 Doctorate

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

Speech-Language Pathologists

Current Employment Gaps by Occupation

-91

386

\$38.89

Master's

The Florida Department of Economic Opportunity study/data identified 5,073 current employment gap positions for Southwest Florida, signifying a 7-percent increase (or 348 positions) compared to the figure reported in the Workforce Overview Study for 2016.

The top 10 employment gaps where demand is estimated to be greater than supply are shown in the table above. Three of the top 10 occupations are in the health care industry, which compares from two of the top 10 in the previous report. These include retail supervisors, retail salespersons, supervisors for food preparation and serving, registered nurses, landscaping and groundskeepers, maintenance and repair workers, construction trades supervisors, administrative supervisors, physical therapists, and speech-language pathologists. The median wage varies from \$11.39 per hour to \$41.24 per hour.

- First-line supervisors of retail salespersons had highest employment gap of -407. On average, each 10 jobs filled are worth an additional \$410,400 in income;
- Retail salespersons had the second highest employment gap of -310. On average, each 10 jobs filled are worth an addition \$227,800 in income;
- First-line supervisors of food preparation and serving workers made up the next highest employment gap of -215. On average, for each 10 jobs filled, income would rise by \$326,600;
- Registered nurses employment gap was -195. For each 10 positions filled, \$601,600 in additional income is earned;
- Landscaping and groundskeeping workers employment gap was -166. For each 10 positions filled, income would rise by \$224,800;
- Maintenance and repair workers employment gap was -146. On average, each 10 jobs filled would raise income by \$343,200;
- First-line supervisors of construction trades and extraction workers employment gap came next, registering -129. For each 10 vacancies filled, additional income of \$549,600 would be generated;
- The employment gap for first-line supervisors of office and administrative support workers occupations registered -98 positions in the present study. For each 10 job vacancies filled, additional income of \$472,800 would be generated;
- Another occupational group is physical therapists. The study identified an employment gap of -93. On average, for each 10 job vacancies filled, additional income of \$824,800 would be generated;
- Rounding out the top 10 employment gaps were speech-language pathologists occupations. The study found an employment gap of -91. For each 10 job vacancies filled, additional income of \$777,800 would be generated.







Other employment gaps were found in health service managers, insurance sales agents, housekeeping cleaners, product
promoters computer systems analysts, supervisors of mechanics, wholesale and manufacturing sales representatives,
carpenters, financial services sales agents, and supervisors of non-retail sales workers.

Projected Employment Demand by Occupation

The top 10 projected high demand regional growth occupations for 2016 to 2024 are shown in the following table. The top growth occupation is retail salespersons with an average annual demand for 1,436 employees per year. This is followed by waiters and waitresses at 1,079 employees per year, cashiers at 770 employees per year, food preparation and serving workers at 642 employees per year, and landscaping and groundskeeping workers at 489 employees per year.

The next five highest occupations in demand are registered nurses, restaurant cooks, customer service representatives, office clerks, and stock clerks.

Top 10 Long-Term Growth Occupations 2016 to 2024				
Occupation	Average Annual Growth	Current Employment	Median Wage	Minimum Education
Retail Salespersons	1,436	25,055	\$11.39	HS/GED
Waiters and Waitresses	1,079	17,336	\$9.59	Less HS/GED
Cashiers	770	13,912	\$9.48	HS/GED
Combined Food Preparation and Serving Workers, Including Fast Food	642	11,592	\$9.37	Less HS/GED
Landscaping and Groundskeeping Workers	489	13,058	\$11.24	Less HS/GED
Registered Nurses	479	10,034	\$30.08	Some College
Cooks, Restaurant	390	7,574	\$12.37	PS Adult Voc
Customer Service Representatives	369	8,044	\$14.60	PS Adult Voc
Office Clerks, General	362	9,929	\$12.96	HS/GED
Stock Clerks and Order Fillers	354	7,288	\$11.71	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, health care, and maintenance and are expected to grow between 154 and 390 positions for each year from 2016 to 2024.

Top 10 Adult Vocational Growth Occupations 2016 to 2024				
Occupation Average Current Annual Growth Employment				
Cooks, Restaurant	390	7,574	\$12.37	
Customer Service Representatives	369	8,044	\$14.60	
First-Line Supervisors of Retail Sales Workers	319	8,261	\$20.52	
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	306	12,108	\$15.13	
Nursing Assistants	293	6,026	\$12.70	
Maintenance and Repair Workers, General	231	5,418	\$17.16	
First-Line Supervisors of Food Preparation and Serving Workers	223	4,356	\$16.33	
Carpenters	215	6,408	\$17.81	
Painters, Construction and Maintenance	180	3,981	\$14.58	
Licensed Practical and Licensed Vocational Nurses	154	2,959	\$21.13	

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 53 and 479 positions for each year from 2016 to 2024.

Top 10 Some College Growth Occupations 2016 to 2024			
Occupation	Average Annual Growth	Current Employment	Median Wage
Registered Nurses	479	10,034	\$30.08
General and Operations Managers	184	3,992	\$47.62
First-Line Supervisors of Office and Administrative Support Workers	147	4,473	\$23.64
First-Line Supervisors of Construction Trades and Extraction Workers	121	3,838	\$27.48
Business Operations Specialists, All Other	100	2,864	\$30.54
Construction Managers	99	3,143	\$36.47
Property, Real Estate, and Community Association Managers	91	2,588	\$28.40
Bookkeeping, Accounting, and Auditing Clerks	69	5,639	\$17.25
Cost Estimators	60	1,173	\$26.13
Recreation Workers	53	1,205	\$11.99







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, health care, legal, community and social service, and engineering and are expected to grow between 40 and 192 positions for each year from 2016 to 2024.

Top 10 Bachelor's or Higher Growth Occupations 2016 to 2024				
Occupation	Average Annual Growth	Current Employment	Median Wage	Minimum Education
Accountants and Auditors	192	4,019	\$29.42	Bachelor's degree
Elementary School Teachers, Except Special Education	159	4,164	\$29.19	Bachelor's degree
Secondary School Teachers, Except Special and Career/Technical Education	87	2,170	\$30.63	Bachelor's degree
Management Analysts	82	1,783	\$35.22	Bachelor's degree
Middle School Teachers, Except Special and Career/Technical Education	80	2,085	\$29.24	Bachelor's degree
Lawyers	66	2,142	\$38.15	Doctorate
Personal Financial Advisors	48	934	\$45.43	Bachelor's degree
Physical Therapists	48	831	\$41.24	Doctorate
Child, Family, and School Social Workers	40	620	\$18.12	Master's degree
Civil Engineers	40	685	\$39.28	Bachelor's degree

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

Summary and Recommendations

This fifth 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.
- 4. The data show consistency with those of last year, in terms of the positions listed, median wage, and minimum education required. There was a small amount of fluidity in the order and type of positions listed. For instance, registered nurses rose from 8th to 4th in terms of short-term employment gaps in the present survey; meanwhile, its median wage rose a mere 49 cents. Half of the positions require Some College or higher. Of the 1,850 positions comprising the Top Ten Short-term Employment Gaps, 67 percent require no college at all.







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 fifth 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 2024.

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The study was started in Summer 2017 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

Retail trade is the largest industry in Southwest Florida when ranked by employment, with 72,423 employees and 18.6 percent of all employment, as shown in Chart 1 and Table 1, based on the data provided by the Quarterly Census of Employment and Wages (QCEW). This data is based on employees covered by the Florida unemployment insurance (so it does not include workers who are self-employed).

The second largest industry employer is accommodation and food services, with 59,715 employees and 15.3 percent of regional employment. The third largest industry is health care and social assistance at 54,094, which represents 13.9 percent of the region's employment. Construction continues to rebound from the recession and is the fourth largest industry with 44,348 employees and 11.4 percent of the region's employment. While the top four industries comprise 59.2



percent of the region's workforce, it remained relatively consistent when compared to 2015, which made up 58.9 percent of the region's workforce. The fifth largest industry is administrative and waste services employing 29,299 and with 7.5 percent of the region's workforce. This industry includes many service-type occupations.

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.



Construction 11%

Health Care and Social Assistance

Accommodation and Food Services
15%

Table 1: Southwest Florida Employment by Inc	lustry
2016	

2016				
Industry	Average Monthly Employment	Percent of Total Employment		
Retail Trade	72,423	18.6%		
Accommodation and Food Services	59,715	15.3%		
Health Care and Social Assistance	54,094	13.9%		
Construction	44,348	11.4%		
Administrative and Waste Services	29,299	7.5%		
Professional and Technical Services	20,465	5.3%		
Other Services, Except Public Administration	16,496	4.2%		
Arts, Entertainment, and Recreation	16,162	4.1%		
Real Estate and Rental and Leasing	11,610	3.0%		
Agriculture, Forestry, Fishing and Hunting	11,185	2.9%		
Other Industry Sectors	53,823	13.8%		
Total, All Industries	389,620	100.0%		







The largest contribution to total wage income is health care and social assistance—with average annual wage expenditures of \$2.7 billion—representing 17.2 percent of total wage expenditures in Southwest Florida. Retail trade is the next largest industry in terms of total wage expenditure, with 13.5 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 12.2 percent of the total regional wage expenditures at \$1.9 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 expenditures, with \$1.3 billion or 8.3 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 2016			
Industry	Total Wages (Billions of Dollars)	Percent of Total Wages	
Health Care and Social Assistance	2.74	17.2%	
Retail Trade	2.15	13.5%	
Construction	1.94	12.2%	
Professional and Technical Services	1.39	8.7%	
Accommodation and Food Services	1.32	8.3%	
Administrative and Waste Services	1.01	6.3%	
Finance and Insurance	0.91	5.7%	
Wholesale Trade	0.71	4.5%	
Real Estate and Rental and Leasing	0.60	3.7%	
Other Services, Except Public Administration	0.54	3.4%	
Other Industry Sectors	2.61	16.4%	
Total, All Industries	15.92	100.0%	

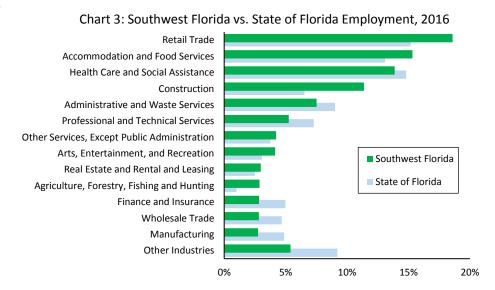






SOUTHWEST FLORIDA INDUSTRY MIX COMPARED TO THE STATE OF FLORIDA

Southwest Florida has a higher percentage of employees in retail trade, accommodation and food services, construction, arts, entertainment, and recreation, real estate and rental and leasing, and agriculture, forestry, fishing and hunting, when compared to the State of Florida, as shown in Chart 3 and Southwest comparative advantage as a preferred location for tourism and retirement certainly helps to explain why the region differs from the state. The largest differentials are in the areas, respectively, of construction and retail trade.



The region has a smaller percentage of employment than the state in manufacturing, finance and insurance, professional and technical services, health care and social assistance, administrative and waste services, and wholesale trade. Manufacturing employment in Southwest Florida is only 2.8 percent of employment, compared to 4.9 percent for the state as whole.

Table 3: Southwest Florida vs. State of Florida Employment				
2016				
Industry	State of Florida	Southwest Florida		
Retail Trade	15.2%	18.6%		
Accommodation and Food Services	13.1%	15.3%		
Health Care and Social Assistance	14.8%	13.9%		
Construction	6.5%	11.4%		
Administrative and Waste Services	9.0%	7.5%		
Professional and Technical Services	7.3%	5.3%		
Other Services, Except Public Administration	3.8%	4.2%		
Arts, Entertainment, and Recreation	3.1%	4.1%		
Real Estate and Rental and Leasing	2.5%	3.0%		
Agriculture, Forestry, Fishing and Hunting	1.0%	2.9%		
Finance and Insurance	5.0%	2.8%		
Wholesale Trade	4.7%	2.8%		
Manufacturing	4.9%	2.8%		
Other Industries	9.2%	5.4%		







FASTEST AND SLOWEST GROWTH INDUSTRIES, 2012 TO 2016

Southwest Florida's economic growth continued to strengthen from 2012 to 2016. During the time period, the region has experienced an increase of 70,551 employees. The fastest growing industries from 2012 to 2016 were construction, accommodation and food services, retail trade, health care and social assistance, and administrative and waste services. The slowest-growing industries were agriculture, forestry, fishing and hunting, management of companies and enterprises, information (media), and utilities, as shown in Table 4 and Chart 4.

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 2012 to 2016.

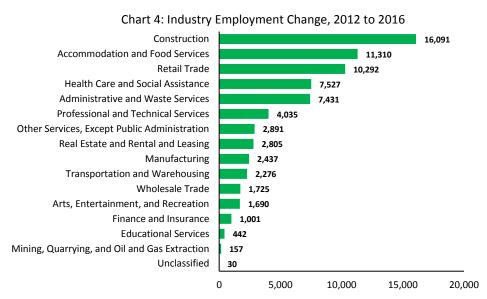


Table 4: Industry Employment Change				
2	2012 to 2016			
Industry	Growth	Percent		
Construction	16,091	56.9%		
Accommodation and Food Services	11,310	23.4%		
Retail Trade	10,292	16.6%		
Health Care and Social Assistance	7,527	16.2%		
Administrative and Waste Services	7,431	34.0%		
Professional and Technical Services	4,035	24.6%		
Other Services, Except Public Administration	2,891	21.2%		
Real Estate and Rental and Leasing	2,805	31.9%		
Manufacturing	2,437	29.4%		
Transportation and Warehousing	2,276	50.6%		
Wholesale Trade	1,725	18.6%		
Arts, Entertainment, and Recreation	1,690	11.7%		
Finance and Insurance	1,001	10.0%		
Educational Services	442	10.6%		
Mining, Quarrying, and Oil and Gas Extraction	157	79.7%		
Unclassified	30	68.2%		
Utilities	-10	-0.9%		
Information	-28	-0.6%		
Management of Companies and Enterprises	-528	-13.9%		
Agriculture, Forestry, Fishing and Hunting	-1,023	-8.4%		







PROJECTED INDUSTRY EMPLOYMENT GROWTH, 2016 TO 2024

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 1,442 employees each year from 2016 to 2024. Retail trade is projected to add the second largest number of employees, adding 1,274 per year. This is followed by construction at 1,072 employees per year, accommodation and food services at 988 employees per year, and self-employed and unpaid family workers at 726 employees per year. Professional, scientific, and technical services are

projected to add 588 employees per year, administrative, support and waste management are projected to add 565 per year and arts, entertainment, and recreation is projected to add 333 per year. The "other services" industry is projected to grow by 309 employees per year, wholesale trade by 206 employees per year, real estate by 188 employees per year, finance and insurance by 166 employees per year, educational services by 162 employees per year, management of companies by employees per year, manufacturing by 94 employees per year.

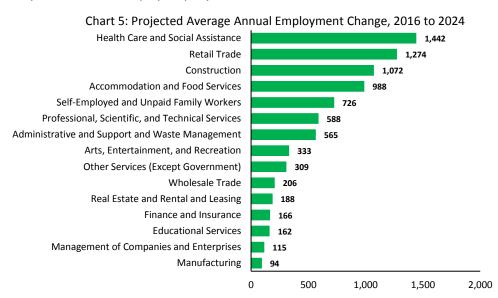


Table 5: Projected Average Annual Employment Change by Industry 2016 to 2024

	2010 to 2021	
Industry	Average Annual Increase	Average Annual Percentage Increase
Health Care and Social Assistance	1,442	2.7%
Retail Trade	1,274	1.7%
Construction	1,072	2.5%
Accommodation and Food Services	988	1.6%
Self-Employed and Unpaid Family Workers	726	1.7%
Professional, Scientific, and Technical Services	588	2.6%
Administrative and Support and Waste Management	565	1.9%
Arts, Entertainment, and Recreation	333	2.0%
Other Services (Except Government)	309	1.6%
Wholesale Trade	206	1.7%
Real Estate and Rental and Leasing	188	1.6%
Finance and Insurance	166	1.4%
Educational Services	162	2.8%
Management of Companies and Enterprises	115	3.2%
Manufacturing	94	0.9%
Other	18	0.1%
Total, All Industries	8,244	1.8%

Source: Employment Projections, Florida Department of Economic Opportunity







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 2017 employment gaps. Employment gaps are defined as summer 2017 demand minus the supply of applicants and graduates. The overall employment gap identified by this study using the Florida Department of Economic Opportunity demand and supply analysis was approximately 5,073 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, first-line supervisors of food preparation and service, registered nurses, landscaping and groundskeeping workers, maintenance and repair workers, first-line supervisors of construction trades, first-line supervisors of office workers, physical therapists, and speech-language pathologists. The employment gap, current employment level, median wage and minimum educational requirements for the top 10 employment gaps are shown in Table 6. The median hourly wages for the top 10 employment gaps ranged from \$11.14 per hour to \$41.24 per hour. The minimum education requirements for each occupation varied from less than high school to a doctorate.

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

Table 6: Top Employment Gaps Summer 2017						
Occupation	Current Supply Gap	Current Employment	Median Wage	Minimum Education		
First-Line Supervisors of Retail Sales Workers	-407	8,261	\$20.52	PS Adult Voc		
Retail Salespersons	-310	25,055	\$11.39	HS/GED		
First-Line Supervisors of Food Preparation and Serving Workers	-215	4,356	\$16.33	PS Adult Voc		
Registered Nurses	-195	10,034	\$30.08	Some College		
Landscaping and Groundskeeping Workers	-166	13,058	\$11.24	Less HS/GED		
Maintenance and Repair Workers, General	-146	5,418	\$17.16	PS Adult Voc		
First-Line Supervisors of Construction Trades and Extraction Workers	-129	3,838	\$27.48	Some College		
First-Line Supervisors of Office and Administrative Support Workers	-98	4,473	\$23.64	Some College		
Physical Therapists	-93	831	\$41.24	Doctorate		
Speech-Language Pathologists	-91	386	\$38.89	Master's		







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, health care, construction, maintenance, building and grounds cleaning, food preparation, administrative, business, management, and computers. More information on the largest occupation groups can be found below.

Sales Occupations

The overall employment gap identified for sales occupations was approximately 1,263 positions. The top 10 employment gaps for sales occupations include firstline supervisors of retail sales, retail salespersons, insurance sales agents, demonstrators and product promotors, sales representatives (except technical and scientific products), financial service sales agents, first-line supervisors of nonretail sales, real estate sales agents, sales representatives for technical and scientific products, and sales representatives for other services. The median wage for the top 10 employment



gaps in sales occupations ranged from \$11.39 per hour to \$40.53 per hour. Minimum education for these occupations ranged from high school or GED to Bachelor's degree. More information can be found in Table 7 and Chart 6.

Table 7: Sales and Related Occupations Summer 2017				
Occupation	Supply Gap	Current Employment	Median Wage	Minimum Education
First-Line Supervisors of Retail Sales Workers	-407	8,261	\$20.52	PS Adult Voc
Retail Salespersons	-310	25,055	\$11.39	HS/GED
Insurance Sales Agents	-87	2,038	\$22.71	PS Adult Voc
Demonstrators and Product Promoters	-75	N/R	\$10.89	HS/GED
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	-68	4,050	\$23.57	PS Adult Voc
Securities, Commodities, and Financial Services Sales Agents	-64	1,027	\$32.11	Bachelor's
First-Line Supervisors of Non-Retail Sales Workers	-63	1,423	\$30.85	Some College
Real Estate Sales Agents	-42	3,135	\$18.24	PS Adult Voc
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	-40	584	\$40.53	PS Adult Voc
Sales Representatives, Services, All Other	-39	5,032	\$25.16	HS/GED







Health Care Occupations

The overall employment gap identified for health care occupations was approximately 614 positions. The top 10 employment gaps for health care occupations include registered nurses, physical therapists, speech-language pathologists, occupational therapists, family and general practitioners, medical and clinical laboratory technologists, physician assistants, pharmacists, dentists, and nurse practitioners. The median wage for the top 10 employment gaps in health care occupations ranged from \$28.30 per hour to \$69.08 per hour. Minimum education

Nurse Practitioners Dentists, General -17 Pharmacists -19 Physician Assistants -20 Medical and Clinical Laboratory Technologists -20 Family and General Practitioners **Occupational Therapists** Speech-Language Pathologists -91 **Physical Therapists** -93 -195 **Registered Nurses**

0

Chart 7: Supply Gap for Healthcare, Summer 2017

occupations ranged from some college to a doctorate. More information can be found in Table 8 and Chart 7.

-200

-250

Table 8: Healthcare Practitioners and Technical Occupations Summer 2017						
Occupation Supply Gap Employment Wage Edu						
Registered Nurses	-195	10,034	\$30.08	Some College		
Physical Therapists	-93	831	\$41.24	Doctorate		
Speech-Language Pathologists	-91	386	\$38.89	Master's		
Occupational Therapists	-48	328	\$43.51	Master's		
Family and General Practitioners	-45	932	N/A	Doctorate		
Medical and Clinical Laboratory Technologists	-20	487	\$28.30	Some College		
Physician Assistants	-20	311	\$47.06	Bachelor's		
Pharmacists	-19	1,003	\$58.77	Doctorate		
Dentists, General	-17	454	\$69.08	Doctorate		
Nurse Practitioners	-14	543	\$49.38	Master's		

-150

-100

-50

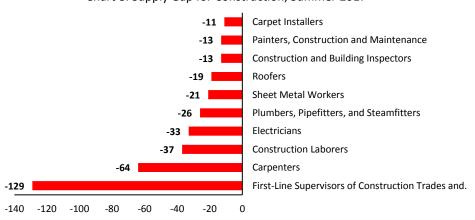
Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity

Note: Family and General Practitioner median wage data for Southwest Florida was not available in the latest occupational data.

Construction Occupations

The overall employment gap identified construction occupations approximately 448 positions. The top 10 employment gaps for construction occupations include first-line supervisors of construction workers, carpenters, construction laborers, electricians, plumbers, pipefitters, and steamfitters, metal workers, roofers, construction and building inspectors, painters, and carpet installers. median wage for the top 10 employment gaps in construction occupations ranged from \$9.10 per hour to \$27.70 per hour.

Chart 8: Supply Gap for Construction, Summer 2017









Minimum education for these occupations ranged from less than high school to some college. More information can be found in Table 9 and Chart 8.

Table 9: Construction and Extraction Occupations Summer 2017					
Occupation	Supply Gap	Current Employment	Median Wage	Minimum Education	
First-Line Supervisors of Construction Trades and Extraction Workers	-129	3,838	\$27.48	Some College	
Carpenters	-64	6,408	\$17.81	PS Adult Voc	
Construction Laborers	-37	6,233	\$13.54	Less HS/GED	
Electricians	-33	2,858	\$19.05	PS Adult Voc	
Plumbers, Pipefitters, and Steamfitters	-26	1,790	\$18.84	PS Adult Voc	
Sheet Metal Workers	-21	267	\$17.31	PS Adult Voc	
Roofers	-19	1,928	\$16.02	PS Adult Voc	
Construction and Building Inspectors	-13	524	\$27.70	PS Adult Voc	
Painters, Construction and Maintenance	-13	3,981	\$14.58	PS Adult Voc	
Carpet Installers	-11	N/R	\$9.10	PS Adult Voc	

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

Maintenance Occupations

The overall employment gap identified for maintenance occupations was approximately 418 positions. The top 10 employment gaps for maintenance occupations include maintenance and repair workers, first-line supervisors of mechanics, automotive service technicians. telecommunication equipment installers, bus and truck mechanics, heating, air conditioning and refrigeration mechanics, automotive glass installers, security and fire alarm installers, tire repairers and changers, and electrical power-line installers. The median wage for the top employment

-7 Electrical Power-Line Installers and Repairers Tire Repairers and Changers -10 Security and Fire Alarm Systems Installers Automotive Glass Installers and Repairers -12 Heating, Air Conditioning, and Refrigeration... -14 Bus and Truck Mechanics and Diesel Engine... Telecommunications Equipment Installers and... -35 **Automotive Service Technicians and Mechanics** -68 First-Line Supervisors of Mechanics, Installers, and. Maintenance and Repair Workers, General

0

Chart 9: Supply Gap for Maintenance, Summer 2017

gaps in maintenance occupations ranged from \$9.17 per hour to \$27.14 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 10 and Chart 9.

-80

-60

-40

-20

-160 -140 -120 -100

Table 10: Installation, Maintenance, and Repair Occupations Summer 2017 Current Median Minimum Occupation **Supply Gap Employment Education** Wage -146 \$17.16 PS Adult Voc Maintenance and Repair Workers, General 5,418 -68 \$27.14 PS Adult Voc First-Line Supervisors of Mechanics, Installers, and Repairers 1.709 -43 \$18.10 PS Adult Voc **Automotive Service Technicians and Mechanics** 3.336 Telecommunications Equipment Installers and Repair -35 727 \$25.18 PS Adult Voc Bus and Truck Mechanics and Diesel Engine Specialists -31 574 \$20.15 PS Adult Voc Heating, Air Conditioning, and Refrigeration Mechanics and Installers 2,593 \$17.97 PS Adult Voc -14 Less HS/GED **Automotive Glass Installers and Repairers** -12 N/R \$15.99 Security and Fire Alarm Systems Installers -10 \$20.72 PS Adult Voc 512 Tire Repairers and Changers -9 578 \$9.17 Less HS/GED -7 **Electrical Power-Line Installers and Repairers** 312 \$21.95 PS Adult Voc







Building and Grounds Cleaning Occupations

The overall employment gap identified for building and grounds cleaning occupations was approximately 383 positions. The top 10 employment gaps for building and grounds keeping occupations include landscaping and groundskeeping workers, housekeeping cleaners, janitors and cleaners, first-line supervisors of housekeeping cleaners, pest control workers, first-line supervisors of groundskeeping workers, and tree trimmers and pruners. The median wage for the top employment gaps in building and grounds cleaning occupations ranged from \$10.33 per



hour to \$20.60 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 11 and Chart 10.

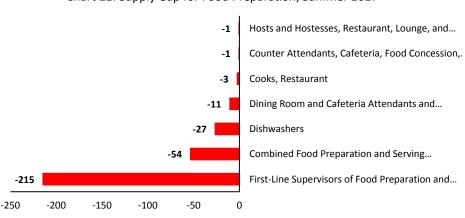
Table 11: Building and Grounds Cleaning Occupations Summer 2017 Median **Minimum** Current Occupation **Supply Gap Employment** Wage **Education** Landscaping and Groundskeeping Workers -166 13,058 \$11.24 Less HS/GED Maids and Housekeeping Cleaners 4,829 \$10.33 Less HS/GED -84 Janitors and Cleaners, Except Maids and Housekeeping Cleaners -57 Less HS/GED 5.146 \$11.60 PS Adult Voc First-Line Supervisors of Housekeeping and Janitorial Workers -24 828 \$20.38 N/R PS Adult Voc Pest Control Workers -24 \$13.98 First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers -15 2,487 \$20.60 PS Adult Voc N/R Less HS/GED **Tree Trimmers and Pruners** -13 \$13.43

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

Food Preparation Occupations

The overall employment gap identified for food preparation occupations was approximately 312 positions. The top 10 employment gaps for food preparation occupations include first-line supervisors for food preparation workers, food preparation workers, dishwashers, cafeteria attendants, restaurant cooks, counter attendants, and restaurant hosts and hostesses. The median wage for the employment gaps preparation occupations ranged from \$9.16 per hour to \$16.33 per hour. education Minimum these

Chart 11: Supply Gap for Food Preparation, Summer 2017



occupations ranged from less than high school diploma to post-secondary adult vocational. More information can be found in Table 12 and Chart 11.







Table 12: Food Preparation and Service Occupations Summer 2017

Occumation	Cumply Can	Current	Median	Minimum
Occupation	Supply Gap	Employment Wage	Education	
First-Line Supervisors of Food Preparation and Serving Workers	-215	4,356	\$16.33	PS Adult Voc
Combined Food Preparation and Serving Workers, Including Fast Food	-54	11,592	\$9.37	Less HS/GED
Dishwashers	-27	2,527	\$9.79	Less HS/GED
Dining Room and Cafeteria Attendants and Bartender	-11	2,608	\$9.72	Less HS/GED
Cooks, Restaurant	-3	7,574	\$12.37	PS Adult Voc
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	-1	3,004	\$9.16	Less HS/GED
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	-1	2,516	\$9.61	Less HS/GED

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

Administrative Occupations

The overall employment gap identified for administrative occupations was approximately 271 positions. The top 10 employment gaps for administrative occupations include first-line supervisors for administrative workers, tellers, hotel desk clerks, medical secretaries, secretaries and administrative assistants (except legal, medical and executive), interviewers (except loan), dispatchers (except police, fire, and ambulance), bill and account collectors, human resources assistants (except payroll and timekeeping), and switchboard

Chart 12: Supply Gap for Administrative, Summer 2017

-6 Switchboard Operators, Including Answering...

-6 Human Resources Assistants, Except Payroll and...

-8 Bill and Account Collectors

Dispatchers, Except Police, Fire, and Ambulance

Interviewers, Except Eligibility and Loan

Secretaries and Administrative Assistants, Except...

Medical Secretaries

Hotel, Motel, and Resort Desk Clerks

Tellers

First-Line Supervisors of Office and Administrative.

operators. The median wage for the top employment gaps in administrative occupations ranged from \$11.43 per hour to \$23.64 per hour. Minimum education for these occupations ranged from high school diploma to some college. More information can be found in Table 13 and Chart 12.

-100

-120

Table 13: Office and Administrative Support Occupations Summer 2017 Median Minimum Current Occupation Supply Gap **Employment** Wage **Education** First-Line Supervisors of Office and Administrative Support Workers -98 4,473 \$23.64 Some College Tellers -40 1,924 \$13.90 PS Adult Voc Hotel, Motel, and Resort Desk Clerks -25 913 \$11.43 HS/GED **Medical Secretaries** -23 1,116 \$14.57 PS Adult Voc -23 PS Adult Voc Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 12,108 \$15.13 HS/GED Interviewers, Except Eligibility and Loan -11 415 \$14.77 Dispatchers, Except Police, Fire, and Ambulance HS/GED -10 574 \$16.05 **Bill and Account Collectors** -8 818 \$15.68 HS/GED Human Resources Assistants, Except Payroll and Timekeeping -6 289 \$18.00 PS Adult Voc HS/GED Switchboard Operators, Including Answering Service 369 \$12.09







Business Occupations

The overall employment gap identified business occupations approximately 232 positions. The top 10 employment for gaps business occupations include accountant and auditors, loan officers, personal financial advisors, business operations specialists, market research analysts, purchasing agents (except wholesale, retail, and farm products), training development specialists, human resources specialists, claim adjusters, and cost estimators. The median wage for the top employment gaps in business occupations ranged from \$23.46 per





hour to \$45.43 per hour. Minimum education for these occupations ranged from post-secondary adult vocational to Bachelor's Degree. More information can be found in Table 14 and Chart 13.

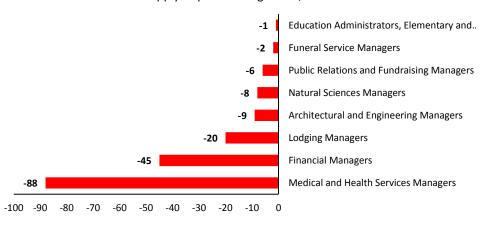
Table 14: Business and Financial Occupations Summer 2017						
Occupation Supply Gap Employment Wage E						
Accountants and Auditors	-59	4,019	\$29.42	Education Bachelor's		
Loan Officers	-30	739	\$36.96	Some College		
Personal Financial Advisors	-25	934	\$45.43	Bachelor's		
Business Operations Specialists, All Other	-18	2,864	\$30.54	Some College		
Market Research Analysts and Marketing Specialists	-16	728	\$27.18	Bachelor's		
Purchasing Agents, Except Wholesale, Retail, and Farm Products	-16	495	\$23.46	Some College		
Training and Development Specialists	-16	499	\$24.07	Bachelor's		
Human Resources Specialists	-14	1,116	\$24.50	Some College		
Claims Adjusters, Examiners, and Investigators	-13	428	\$24.12	PS Adult Voc		
Cost Estimators	-11	1,173	\$26.13	Some College		

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

Management Occupations

The overall employment gap identified management occupations approximately 179 positions. The top employment gaps for management occupations include health managers, financial managers, lodging managers, engineering managers, natural sciences managers, public relations managers, funeral service managers, and education administrators. The median wage for the employment gaps in management occupations ranged from \$26.26 per hour to \$55.44 per hour. education for these occupations ranged

Chart 14: Supply Gap for Management, Summer 2017



from some college to Bachelor's degree. More information can be found in Table 15 and Chart 14.







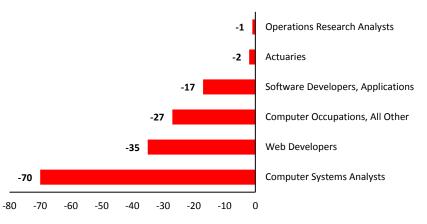
Table 15: Management Occupations Summer 2017 Median Current Minimum Occupation **Supply Gap Employment** Wage **Education** Medical and Health Services Managers -88 704 \$49.97 Bachelor's Financial Managers 853 -45 \$53.83 Bachelor's **Lodging Managers** -20 214 \$26.26 Some College Architectural and Engineering Managers -9 255 \$55.44 Bachelor's **Natural Sciences Managers** -8 47 \$43.62 Bachelor's Public Relations and Fundraising Managers 54 \$51.23 Bachelor's -6 **Funeral Service Managers** -2 N/R \$52.87 Some College Education Administrators, Elementary and Secondary 282 \$48.06 Bachelor's

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

Computer Occupations

The overall employment gap identified for computer occupations approximately 152 positions. The top employment gaps for computer occupations include computer system analysts, web developers, computer occupations (all other), software developers (applications), actuaries, and operations research analysts. median wage for the top employment gaps in computer occupations ranged from \$25.15 per hour to \$37.53 per hour. Minimum education for these occupations ranged from post-secondary adult vocational to Master's degree.

Chart 15: Supply Gap for Computer, Summer 2017



More information can be found in Table 16 and Chart 15.

Table 16: Computer and Mathematical Occupations Summer 2017						
Occupation Supply Gap Current Median Minimu Employment Wage Educati						
Computer Systems Analysts	-70	631	\$33.84	Some College		
Web Developers	-35	392	\$25.15	PS Adult Voc		
Computer Occupations, All Other	-27	129	\$37.53	PS Adult Voc		
Software Developers, Applications	-17	867	\$33.86	Some College		
Actuaries	-2	N/R	N/R	Bachelor's		
Operations Research Analysts	-1	206	\$28.40	Master's		







LONG-TERM AVERAGE ANNUAL EMPLOYMENT GROWTH BY OCCUPATION, 2016 TO 2024

The Florida Department of Economic Opportunity provided its forecast average annual demand for Southwest Florida employees for the period 2016 to 2024. This forecast provides additional information about expected annual occupational demands for the 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, registered nurses, restaurant cooks, customer service representatives, office clerks, and stock clerks.

Table 17 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, health care, and construction. Three of the top growth occupations require less than a high school degree, four require a high school degree or GED, two require adult vocational training, and one requires some college. Median wage varied from \$9.37 per hour to \$30.08 per hour and was 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 17: Top 10 Long-Term Employment Growth Occupations 2016 to 2024					
Occupation	Average Annual Growth	Current Employment	Median Wage	Minimum Education	
Retail Salespersons	1,436	25,055	\$11.39	HS/GED	
Waiters and Waitresses	1,079	17,336	\$9.59	Less HS/GED	
Cashiers	770	13,912	\$9.48	HS/GED	
Combined Food Preparation and Serving Workers, Including Fast Food	642	11,592	\$9.37	Less HS/GED	
Landscaping and Groundskeeping Workers	489	13,058	\$11.24	Less HS/GED	
Registered Nurses	479	10,034	\$30.08	Some College	
Cooks, Restaurant	390	7,574	\$12.37	PS Adult Voc	
Customer Service Representatives	369	8,044	\$14.60	PS Adult Voc	
Office Clerks, General	362	9,929	\$12.96	HS/GED	
Stock Clerks and Order Fillers	354	7,288	\$11.71	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 restaurant cooks, customer service representatives, first-line supervisors of retail sales, secretaries and administrative assistants, nursing assistants, maintenance and repair workers, first-line supervisors of food preparation workers, carpenters, painters, and licensed vocational nurses. The top 20 average annual growth occupations for adult vocational, along with the median wage and current employment, can be found in Table 18.

	Table 18: Adult Vocational Long-term Growth Occupations					
	2016 to 2024					
#	Occupation	Average Annual Growth	Current Employment	Median Wage		
1	Cooks, Restaurant	390	7,574	\$12.37		
2	Customer Service Representatives	369	8,044	\$14.60		
3	First-Line Supervisors of Retail Sales Workers	319	8,261	\$20.52		
4	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	306	12,108	\$15.13		
5	Nursing Assistants	293	6,026	\$12.70		
6	Maintenance and Repair Workers, General	231	5,418	\$17.16		
7	First-Line Supervisors of Food Preparation and Serving Workers	223	4,356	\$16.33		
8	Carpenters	215	6,408	\$17.81		
9	Painters, Construction and Maintenance	180	3,981	\$14.58		
10	Licensed Practical and Licensed Vocational Nurses	154	2,959	\$21.13		
11	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	150	4,050	\$23.57		
12	Medical Assistants	148	3,004	\$15.73		
13	Automotive Service Technicians and Mechanics	144	3,336	\$18.10		
14	Childcare Workers	138	2,969	\$10.59		
15	Hairdressers, Hairstylists, and Cosmetologists	137	3,178	\$13.95		
16	Police and Sheriff's Patrol Officers	124	2,641	\$24.54		
17	Insurance Sales Agents	113	2,038	\$22.71		
18	Heavy and Tractor-Trailer Truck Drivers	109	3,553	\$17.97		
19	Electricians	108	2,858	\$19.05		
20	Personal Care Aides	98	1,838	\$10.73		







Some College

The forecast top 10 occupations for growth from 2016 to 2024 requiring a minimum of "some college" are registered nurses, operations managers, first-line supervisors of administrative support workers, first-line supervisors of construction trades, business operations specialists, construction managers, property, real estate, and community association managers, bookkeeping, accounting, and auditing clerks, cost estimators, and recreation workers. The top 20 average annual growth occupations for "some college", along with the median wage and current employment, can be found in Table 19.

Table 19: Some College Long-term Growth Occupations 2016 to 2024						
#	Occupation	Average Annual Growth	Current Employment	Median Wage		
1	Registered Nurses	479	10,034	\$30.08		
2	General and Operations Managers	184	3,992	\$47.62		
3	First-Line Supervisors of Office and Administrative Support Workers	147	4,473	\$23.64		
4	First-Line Supervisors of Construction Trades and Extraction Workers	121	3,838	\$27.48		
5	Business Operations Specialists, All Other	100	2,864	\$30.54		
6	Construction Managers	99	3,143	\$36.47		
7	Property, Real Estate, and Community Association Managers	91	2,588	\$28.40		
8	Bookkeeping, Accounting, and Auditing Clerks	69	5,639	\$17.25		
9	Cost Estimators	60	1,173	\$26.13		
10	Recreation Workers	53	1,205	\$11.99		
11	Managers, All Other	50	1,320	\$36.70		
12	Human Resources Specialists	47	1,116	\$24.50		
13	First-Line Supervisors of Non-Retail Sales Workers	42	1,423	\$30.85		
14	Food Service Managers	42	1,129	\$29.05		
15	Postsecondary Teachers, All Other	38	762	\$41.06		
16	Software Developers, Applications	37	867	\$33.86		
17	Veterinary Technologists and Technicians	36	735	\$15.93		
18	Preschool Teachers, Except Special Education	35	848	\$11.75		
19	Graphic Designers	33	830	\$18.05		
20	Computer Systems Analysts	29	631	\$33.84		







Bachelor's Degree

The forecast top 10 occupations for growth from 2016 to 2024 requiring a bachelor's degree include accountants and auditors, elementary school teachers, secondary school teachers, management analysts, middle school teachers, personal financial advisors, civil engineers, medical and health service managers, financial managers, and market research analysts. The top 20 average annual growth occupations for bachelor's degree, along with the median wage and current employment, can be found in table 20.

	Table 20: Bachelor's Degree Long-term Growth Occupations 2016 to 2024					
#	Occupation	Average Annual Growth	Current Employment	Median Wage		
1	Accountants and Auditors	192	4,019	\$29.42		
2	Elementary School Teachers, Except Special Education	159	4,164	\$29.19		
3	Secondary School Teachers, Except Special and Career/Technical Education	87	2,170	\$30.63		
4	Management Analysts	82	1,783	\$35.22		
5	Middle School Teachers, Except Special and Career/Technical Education	80	2,085	\$29.24		
6	Personal Financial Advisors	48	934	\$45.43		
7	Civil Engineers	40	685	\$39.28		
8	Medical and Health Services Managers	38	704	\$49.97		
9	Financial Managers	36	853	\$53.83		
10	Market Research Analysts and Marketing Specialists	35	728	\$27.18		
11	Kindergarten Teachers, Except Special Education	34	740	\$28.65		
12	Special Education Teachers, All Other	29	846	\$31.64		
13	Chief Executives	29	955	N/A		
14	Clergy	26	775	\$20.68		
15	Securities, Commodities, and Financial Services Sales Agents	25	1,027	\$32.11		
16	Environmental Scientists and Specialists, Including Health	24	526	\$24.08		
17	Training and Development Specialists	24	499	\$24.07		
18	Sales Managers	22	516	\$59.13		

Source: Occupational Supply/Demand Report, Florida Department of Economic Opportunity Note: Chief executives median wage data was not available in the latest occupational data.

Music Directors and Composers

20 Public Relations Specialists







20

19

486

564

\$22.22

\$22.79

Master's Degree

The forecast top 10 occupations for growth from 2016 to 2024 requiring a master's degree include family and school social workers, nurse practitioners, architects, speech-language pathologists, healthcare social workers, nurse anesthetists, educational counselors, occupational therapists, instructional coordinators, and operations research analysts. The top 19 average annual growth occupations for master's degree, along with the median wage and current employment, can be found in Table 21.

Table 21: Master's Degree Long-term Growth Occupations

#	Occupation Occupation	Average Annual Growth	Current Employment	Median Wage
1	Child, Family, and School Social Workers	40	620	\$18.12
2	Nurse Practitioners	38	543	\$49.38
3	Architects, Except Landscape and Naval	20	437	\$30.53
4	Speech-Language Pathologists	20	386	\$38.89
5	Healthcare Social Workers	19	345	\$23.67
6	Nurse Anesthetists	19	326	\$72.57
7	Educational, Guidance, School, and Vocational Counselors	17	419	\$31.00
8	Occupational Therapists	16	328	\$43.51
9	Instructional Coordinators	13	464	\$24.20
10	Operations Research Analysts	11	206	\$28.40
11	Mental Health and Substance Abuse Social Workers	9	158	\$18.46
12	Mental Health Counselors	8	149	\$23.65
13	Health Diagnosing and Treating Practitioners, All Other	7	143	\$32.91
14	Librarians	7	215	\$29.63
15	Counselors, All Other	6	100	\$17.00
16	Art, Drama, and Music Teachers, Postsecondary	4	74	\$32.93
17	Psychologists, All Other	4	71	\$38.53
18	Nursing Instructors and Teachers, Postsecondary	4	67	\$42.56
19	Curators You Possessional Supply/Demand Report, Florida Department of Economic Opportunity	3	52	\$20.70







Doctorate

The forecast top 10 occupations for growth from 2016 to 2024 requiring a doctorate include lawyers, physical therapists, family and general practitioners, pharmacists, dentists, medical scientists, health specialties teachers, veterinarians, clinical and school psychologists, and chiropractors. The top 19 average annual growth occupations for doctorates, along with the median wage and current employment, can be found in Table 22.

Table 22: Doctorate Long-term Growth Occupations 2016 to 2024						
#	Occupation	Average Annual Growth	Current Employment	Median Wage		
1	Lawyers	66	2,142	\$38.15		
2	Physical Therapists	48	831	\$41.24		
3	Family and General Practitioners	40	932	\$0.00		
4	Pharmacists	38	1,003	\$58.77		
5	Dentists, General	21	454	\$69.08		
6	Medical Scientists, Except Epidemiologists	14	178	\$35.17		
7	Health Specialties Teachers, Postsecondary	13	229	\$30.45		
8	Veterinarians	13	308	\$39.12		
9	Clinical, Counseling, and School Psychologists	11	212	\$37.96		
10	Chiropractors	6	158	\$33.04		
11	Education Teachers, Postsecondary	6	113	\$40.61		
12	Mathematical Science Teachers, Postsecondary	6	108	\$34.24		
13	Biological Science Teachers, Postsecondary	5	92	\$39.59		
14	English Language and Literature Teachers, Postsecondary	5	100	\$27.26		
15	Chemistry Teachers, Postsecondary	3	46	\$38.67		
16	Communications Teachers, Postsecondary	3	63	\$37.16		
17	Psychology Teachers, Postsecondary	3	54	\$32.20		
18	Economics Teachers, Postsecondary	1	27	\$38.79		
19	Social Work Teachers, Postsecondary	1	22	\$36.86		







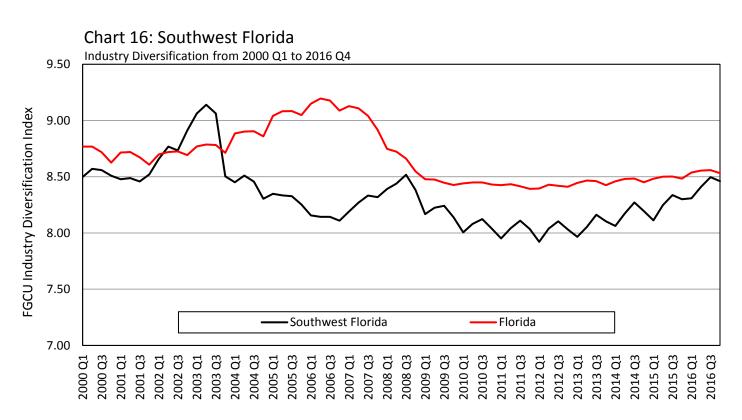
INDUSTRY DIVERSIFICATION INDEX

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 16, 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 2012 to 2016, this average fell to 8.18, or about 5 percent. In contrast, the state overall saw a decrease in diversification by 3.2 percent for the same time periods. IDI measures for the region, state, and country are presented in Table 23 below. For more information on industry diversity, see the web site of the Industry Diversification Project, at lutgert.fgcu.edu/IDP.

Ta	Table 23: Average Annual Industry Diversification Index 2000 to 2016 Year Southwest Florida Florida United States					
Year						
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			

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. Twelve 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 \$10.63 per hour. Adult vocational training covers a wide range of occupations and represented 42 percent of the top 50 employment gaps identified. The median wage for occupations requiring adult vocational training was higher at \$17.84. Some college or higher including an associate degree was required by 12 percent of the top 50 employment gaps with a median wage of \$26.93. 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 24: Occupations With Employment Gaps						
	2016 to 2017					
Percent of Top 50 Employment Gaps				Weighted Average Median Wage		
Minimum Education	2016	2017	Change	2016	2017	Change
Less HS/GED	18%	12%	-6%	\$10.43	\$10.63	1.95%
HS/GED	10%	10%	0%	\$13.35	\$13.89	4.11%
PS Adult Voc	38%	42%	4%	\$17.65	\$17.84	1.05%
Some College	12%	12%	0%	\$26.55	\$26.93	1.46%
Bachelor's	14%	14%	0%	\$32.42	\$32.51	0.26%
Master's or Higher	8%	10%	2%	\$48.30	\$49.15	1.75%

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, 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 2017.

	Table 25: Top 25 Employment Gaps							
	Summer 2017							
#	Occupation	Current Supply Gap	Current Employment	Median Wage	Minimum Education			
1	First-Line Supervisors of Retail Sales Workers	-407	8,261	\$20.52	PS Adult Voc			
2	Retail Salespersons	-310	25,055	\$11.39	HS/GED			
3	First-Line Supervisors of Food Preparation and Serving Workers	-215	4,356	\$16.33	PS Adult Voc			
4	Registered Nurses	-195	10,034	\$30.08	Some College			
5	Landscaping and Groundskeeping Workers	-166	13,058	\$11.24	Less HS/GED			
6	Maintenance and Repair Workers, General	-146	5,418	\$17.16	PS Adult Voc			
7	First-Line Supervisors of Construction Trades and Extraction Workers	-129	3,838	\$27.48	Some College			
8	First-Line Supervisors of Office and Administrative Support Workers	-98	4,473	\$23.64	Some College			
9	Physical Therapists	-93	831	\$41.24	Doctorate			
10	Speech-Language Pathologists	-91	386	\$38.89	Master's			
11	Medical and Health Services Managers	-88	704	\$49.97	Bachelor's			
12	Insurance Sales Agents	-87	2,038	\$22.71	PS Adult Voc			
13	Maids and Housekeeping Cleaners	-84	4,829	\$10.33	Less HS/GED			
14	Demonstrators and Product Promoters	-75	N/R	\$10.89	HS/GED			
15	Computer Systems Analysts	-70	631	\$33.84	Some College			
16	First-Line Supervisors of Mechanics, Installers, and Repairers	-68	1,709	\$27.14	PS Adult Voc			
17	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	-68	4,050	\$23.57	PS Adult Voc			
18	Carpenters	-64	6,408	\$17.81	PS Adult Voc			
19	Securities, Commodities, and Financial Services Sales Agents	-64	1,027	\$32.11	Bachelor's			
20	First-Line Supervisors of Non-Retail Sales Workers	-63	1,423	\$30.85	Some College			

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

Combined Food Preparation and Serving Workers, Including Fast Food

Janitors and Cleaners, Except Maids and Housekeeping Cleaners

21

22

23

24

25

Accountants and Auditors

Security Guards

Merchandise Displayers and Window Trimmers







-59

-59

-57

-57

-54

4,019

432

5,146

3,246

11,592

Bachelor's

HS/GED

Less HS/GED PS Adult Voc

Less HS/GED

\$29.42

\$12.59

\$11.60

\$11.72

\$9.37

Table 26: Ranked 26-50 Employment Gaps

ш	O	Current	Current	Median	Minimum
#	Occupation	Supply Gap	Employment	Wage	Education
26	Social and Human Service Assistants	-51	524	\$16.00	PS Adult Voc
27	Occupational Therapists	-48	328	\$43.51	Master's
28	Family and General Practitioners	-45	932	\$0.00	Doctorate
29	Financial Managers	-45	853	\$53.83	Bachelor's
30	Automotive Service Technicians and Mechanics	-43	3,336	\$18.10	PS Adult Voc
31	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	-42	461	\$25.36	PS Adult Voc
32	Real Estate Sales Agents	-42	3,135	\$18.24	PS Adult Voc
33	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	-40	584	\$40.53	PS Adult Voc
34	Tellers	-40	1,924	\$13.90	PS Adult Voc
35	Sales Representatives, Services, All Other	-39	5,032	\$25.16	HS/GED
36	Construction Laborers	-37	6,233	\$13.54	Less HS/GED
37	Telecommunications Equipment Installers and Repair	-35	727	\$25.18	PS Adult Voc
38	Web Developers	-35	392	\$25.15	PS Adult Voc
39	Electricians	-33	2,858	\$19.05	PS Adult Voc
40	Bus and Truck Mechanics and Diesel Engine Specialists	-31	574	\$20.15	PS Adult Voc
41	Loan Officers	-30	739	\$36.96	Some College
42	Computer Occupations, All Other	-27	129	\$37.53	PS Adult Voc
43	Dishwashers	-27	2,527	\$9.79	Less HS/GED
44	Civil Engineers	-26	685	\$39.28	Bachelor's
45	Industrial Engineers	-26	216	\$30.78	Bachelor's
46	Plumbers, Pipefitters, and Steamfitters	-26	1,790	\$18.84	PS Adult Voc
47	Hotel, Motel, and Resort Desk Clerks	-25	913	\$11.43	HS/GED
48	Mental Health and Substance Abuse Social Workers	-25	158	\$18.46	Master's
49	Personal Financial Advisors	-25	934	\$45.43	Bachelor's
50	First-Line Supervisors of Housekeeping and Janitorial Workers	-24	828	\$20.38	PS Adult Voc







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

Below is a list of the top 50 occupational employment gaps identified in summer 2017.

Table 27: Top 25 Long-Term Employment Growth Occupations

	2016 to 2024						
#	Occupation	Average	Current	Median	Minimum		
#	Occupation	Annual Growth	Employment	Wage	Education		
1	Retail Salespersons	1,436	25,055	\$11.39	HS/GED		
2	Waiters and Waitresses	1,079	17,336	\$9.59	Less HS/GED		
3	Cashiers	770	13,912	\$9.48	HS/GED		
4	Combined Food Preparation and Serving Workers, Including Fast Food	642	11,592	\$9.37	Less HS/GED		
5	Landscaping and Groundskeeping Workers	489	13,058	\$11.24	Less HS/GED		
6	Registered Nurses	479	10,034	\$30.08	Some College		
7	Cooks, Restaurant	390	7,574	\$12.37	PS Adult Voc		
8	Customer Service Representatives	369	8,044	\$14.60	PS Adult Voc		
9	Office Clerks, General	362	9,929	\$12.96	HS/GED		
10	Stock Clerks and Order Fillers	354	7,288	\$11.71	HS/GED		
11	First-Line Supervisors of Retail Sales Workers	319	8,261	\$20.52	PS Adult Voc		
12	Laborers and Freight, Stock, and Material Movers, Hand	307	6,203	\$10.66	Less HS/GED		
13	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	306	12,108	\$15.13	PS Adult Voc		
14	Nursing Assistants	293	6,026	\$12.70	PS Adult Voc		
15	Construction Laborers	281	6,233	\$13.54	Less HS/GED		
16	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	258	3,004	\$9.16	Less HS/GED		
17	Receptionists and Information Clerks	234	4,956	\$13.57	HS/GED		
18	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	233	2,516	\$9.61	Less HS/GED		
19	Maintenance and Repair Workers, General	231	5,418	\$17.16	PS Adult Voc		
20	Sales Representatives, Services, All Other	226	5,032	\$25.16	HS/GED		
21	First-Line Supervisors of Food Preparation and Serving Workers	223	4,356	\$16.33	PS Adult Voc		
22	Food Preparation Workers	218	4,582	\$10.85	Less HS/GED		
23	Carpenters	215	6,408	\$17.81	PS Adult Voc		
24	Maids and Housekeeping Cleaners	200	4,829	\$10.33	Less HS/GED		
25	Bartenders	196	3,259	\$9.84	Less HS/GED		







Table 28: Ranked 26-50 Long-Term Employment Growth Occupations 2016 to 2024

#	Occupation	Average	Current	Median	Minimum
#	Occupation	Annual Growth	Employment	Wage	Education
26	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	192	5,146	\$11.60	Less HS/GED
27	Accountants and Auditors	192	4,019	\$29.42	Bachelor's
28	General and Operations Managers	184	3,992	\$47.62	Some College
29	Dining Room and Cafeteria Attendants and Bartender	180	2,608	\$9.72	Less HS/GED
30	Painters, Construction and Maintenance	180	3,981	\$14.58	PS Adult Voc
31	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	176	6,550	\$9.47	Less HS/GED
32	Elementary School Teachers, Except Special Education	159	4,164	\$29.19	Bachelor's
33	Licensed Practical and Licensed Vocational Nurses	154	2,959	\$21.13	PS Adult Voc
34	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	150	4,050	\$23.57	PS Adult Voc
35	Medical Assistants	148	3,004	\$15.73	PS Adult Voc
36	First-Line Supervisors of Office and Administrative Support Workers	147	4,473	\$23.64	Some College
37	Automotive Service Technicians and Mechanics	144	3,336	\$18.10	PS Adult Voc
38	Childcare Workers	138	2,969	\$10.59	PS Adult Voc
39	Amusement and Recreation Attendants	137	2,178	\$9.53	Less HS/GED
40	Hairdressers, Hairstylists, and Cosmetologists	137	3,178	\$13.95	PS Adult Voc
41	Dishwashers	133	2,527	\$9.79	Less HS/GED
42	Police and Sheriff's Patrol Officers	124	2,641	\$24.54	PS Adult Voc
43	First-Line Supervisors of Construction Trades and Extraction Workers	121	3,838	\$27.48	Some College
44	Insurance Sales Agents	113	2,038	\$22.71	PS Adult Voc
45	Heavy and Tractor-Trailer Truck Drivers	109	3,553	\$17.97	PS Adult Voc
46	Electricians	108	2,858	\$19.05	PS Adult Voc
47	Business Operations Specialists, All Other	100	2,864	\$30.54	Some College
48	Construction Managers	99	3,143	\$36.47	Some College
49	Personal Care Aides	98	1,838	\$10.73	PS Adult Voc
50	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	98	2,593	\$17.97	PS Adult Voc





