

Situational Assessment Data of Florida Manufacturing Workforce Needs and Current Manufacturing Education within Florida State College System

Data includes:

Florida Department of Economic Opportunity 2021-2029 Projected Engineering Technology and
Related Manufacturing Occupation Estimates
for the Manufacturing Industry by Workforce Region (1-24)

and

2020-21 Student Enrollment for ET and Related Manufacturing Programs for FL State and
Community State College System



FLORIDA DEPARTMENT OF
EDUCATION
CAREER AND ADULT EDUCATION

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This report is part of year two of the “Strengthening Career and Technical Education for the 21st Century Act (Perkins V), State Leadership, FloridaMakes, Inc. / Florida Advanced Technological Education Center (FLATE)” grant.

This report was compiled and collected by the Florida Advanced Technological Education Center (FLATE), Part of FloridaMakes, and includes assessment data of Florida's manufacturing workforce needs and current manufacturing education and advanced technology programs within the Florida State College System (FSC).

For this report, the most in-demand manufacturing-related occupations among manufacturing firms between 2021 and 2029 for all 24 workforce regions were selected. This report includes the 2021 annual employment numbers for each occupation, the 2029 projected employment, and the estimated growth between the two time periods.

To provide a situational assessment of the Florida manufacturing workforce needs and current manufacturing-related education within the FSC system, the 2021 student enrollment data, for the engineering technology (ET) and manufacturing-related A.S degree programs for each of the 28 member colleges of the Florida College System, was paired up with their assigned workforce region and their occupation estimates related to the manufacturing industry.

Summary

Based on the occupation estimates for the manufacturing industry (selected manufacturing industry occupations, there were 542,953 occupations available in 2021 and 616,103 projected potential occupations will be available in Florida. 2021 data from FDOE, shows an enrollment of 5,354 students in engineering technology (ET) and manufacturing-related programs. This assessment indicates the urgent need for a statewide recruitment/retention and growth plan for all district and FCS institutions' engineering/manufacturing/advanced technology programs.

TOTAL Florida Manufacturing Workforce Needs (occupation estimates) Workforce regions 1-24	Occupation Estimates for the Manufacturing Industry (Selected Occupations)		FDOE 2020-2021 Student Enrollment Engineering Technology & Manufacturing-Related Programs
	2021	2029	
	542,953	616,103	5,354

Florida's manufacturing workforce needs source data.

Data for this assessment is provided by the Florida Department of Economic Opportunity (DEO), Division of Workforce Services, www.floridajobs.org. Selected manufacturing-related occupations and projections are to be most in-demand among manufacturing firms between 2021 and 2029 for all 24 workforce regions. This report includes the 2021 annual employment numbers for each occupation, the 2029 projected employment, and the estimated growth between the two time periods.

Florida student enrollment data for the Engineering Technology (ET) and manufacturing-related A.S degree programs.

FLATE Annually requests and compiles student enrollment and completion data for the Engineering Technology (ET) and related A.S. and B.S. degrees and college credit certificate (CCC) programs for Florida colleges, and for related technology programs at the secondary and postsecondary career certificate programs (CC). Data for this report is provided by the Florida Department of Education, PERA Data Team, Bureau of PK-20 Education Reporting and Accessibility, Division of Accountability, Research, and Measurement. To access the full report visit [FLATE.org/Publications/ 2016-2021 FL ET and Related AS AAS Program Enrollment and Completion 5-Year Trend Report](http://FLATE.org/Publications/2016-2021_FL_ET_and_Related_AS_AAS_Program_Enrollment_and_Completion_5-Year_Trend_Report).

According to the [World Economic Forum \(2018\)](#), by 2022, nearly 85 percent of employers are likely or very likely to have expanded their adoption of user and entity big data analytics. Similarly, large proportions of companies are likely to have expanded their adoption of technologies such as the internet of things, app- and web-enabled markets, and cloud computing. Machine learning and extended reality are also poised to receive considerable business investment. By 2022, nearly 60 percent of employers expect they will have significantly modified how they produce and distribute by changing the composition of their value chain and nearly half will modify their geographical base. This means, that not only are businesses becoming more efficient but, when determining job locations, companies overwhelmingly prioritize the availability of skilled local talent as their foremost consideration.

This data assessment/environmental scan will serve as the basis for statewide enrollment management and recruitment plan for all district and FCS institutions' engineering, advanced technology, and manufacturing-related programs. This data will also serve as a basis for a statewide outreach campaign for economically-disadvantaged residents/students and for students for whom engineering, advanced technology, and manufacturing-related programs are nontraditional programs for their gender.

One of the key aspects to ensuring Florida's economic success is the ability to educate for the future of work. This, in turn, requires the strengthening of the state's Career and Technical Education (CTE) programs and pathways in view of developing a robust ecosystem of innovation, entrepreneurship, and cross-sector partnerships.

To learn more about FLATE visit FLATE.org

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NORTHWEST FLORIDA STATE COLLEGE	CareerSource Okaloosa Walton (Okaloosa, Walton Counties)	2	5
CHIPOLA COLLEGE	CareerSource Chipola (Calhoun, Holmes, Jackson, Liberty, Washington Counties)	3	6
GULF COAST STATE COLLEGE	CareerSource Gulf Coast (Bay, Franklin, Gulf Counties)	4	7
TALLAHASSEE COMMUNITY COLLEGE	CareerSource Capital Region (Gadsden, Leon, Wakulla Counties)	5	8
NORTH FLORIDA COLLEGE	CareerSource North Florida (Hamilton, Jefferson, Lafayette, Madison, Suwannee, Taylor Counties)	6	9
FLORIDA GATEWAY COLLEGE	CareerSource Florida Crown (Columbia, Dixie, Gilchrist, Union Counties)	7	10
FLORIDA STATE COLLEGE AT JACKSONVILLE	CareerSource Northeast Florida (Baker, Clay, Duval, Nassau, Putnam, St. Johns Counties)	8	11
ST. JOHNS RIVER STATE COLLEGE	CareerSource Northeast Florida (Baker, Clay, Duval, Nassau, Putnam, St. Johns Counties)		
SANTA FE COLLEGE	CareerSource North Central Florida (Alachua, Bradford Counties)	9	12
COLLEGE OF CENTRAL FLORIDA	CareerSource Citrus Levy Marion (Citrus, Levy, Marion Counties)	10	13
DAYTONA STATE COLLEGE	CareerSource Flagler Volusia (Flagler, Volusia Counties)	11	14
LAKE-SUMTER STATE COLLEGE	CareerSource Central Florida (Lake, Orange, Osceola, Seminole, Sumter Counties)	12	15
SEMINOLE STATE COLLEGE OF FLORIDA	CareerSource Central Florida (Lake, Orange, Osceola, Seminole, Sumter Counties)		
VALENCIA COLLEGE	CareerSource Central Florida (Lake, Orange, Osceola, Seminole, Sumter Counties)		
EASTERN FLORIDA STATE COLLEGE	CareerSource Brevard (Brevard County)	13	16
ST. PETERSBURG COLLEGE	CareerSource Pinellas (Pinellas County)	14	17
HILLSBOROUGH COMMUNITY COLLEGE	CareerSource Tampa Bay (Hillsborough County)	15	18
PASCO-HERNANDO STATE COLLEGE	CareerSource Pasco Hernando (Hernando, Pasco Counties)	16	19
POLK STATE COLLEGE	CareerSource Polk (Polk County)	17	20
STATE COLLEGE OF FLORIDA, MANATEE-SARASOTA	CareerSource Suncoast (Manatee, Sarasota Counties)	18	21
SOUTH FLORIDA STATE COLLEGE	CareerSource Heartland (DeSoto, Hardee, Highlands, Okeechobee Counties)	19	22
INDIAN RIVER STATE COLLEGE	CareerSource Research Coast (Indian River, Martin, St. Lucie Counties)	20	23
PALM BEACH STATE COLLEGE	CareerSource Palm Beach County (Palm Beach County)	21	24
BROWARD COLLEGE	CareerSource Broward (Broward County)	22	25
THE COLLEGE OF THE FLORIDA KEYS	CareerSource South Florida (Miami-Dade, Monroe Counties)	23	26
MIAMI DADE COLLEGE	CareerSource South Florida (Miami-Dade, Monroe Counties)		
FLORIDA SOUTHWESTERN STATE COLLEGE	CareerSource Southwest Florida (Charlotte, Collier, Glades, Hendry, Lee Counties)	24	27

SOC Code	Selected Standard Occupational Classification (SOC) Title- Related to Manufacturing
17-2112	Industrial Engineers
49-9041	Industrial Machinery Mechanics
51-4121	Welders, Cutters, Solderers, and Brazers
51-9111	Packaging and Filling Machine Operators and Tender
51-1011	First-Line Supervisors/Managers of Production and Operating Workers
51-9023	Mixing and Blending Machine Setters, Operators, an
51-4041	Machinists
49-9071	Maintenance and Repair Workers
41-4012	Sales Representatives, Wholesale and Manufacturing-2
11-3051	Industrial Production Managers-1
51-7041	Sawing Machine Setters, Operators, and Tenders, Wo
51-9198	Helpers--Production Workers
11-1021	General and Operations Managers
51-2091	Fiberglass Laminators and Fabricators
51-6031	Sewing Machine Operators
51-7042	Woodworking Machine Setters, Operators, and Tender
47-2211	Sheet Metal Workers
42-0700	Industrial Production Managers
49-1011	First-Line Supervisors/Managers of Mechanics, Inst
51-4072	Molding, Coremaking, and Casting Machine Setters,
51-4011	Computer-Controlled Machine Tool Operators, Metal
17-3026	Industrial Engineering Technicians
51-4021	Extruding and Drawing Machine Setters, Operators,
49-3011	Aircraft Mechanics and Service Technicians
41-4011	Sales Representatives, Wholesale and Manufacturing -1
17-3023	Electrical and Electronic Engineering Technicians

* The Manufacturing Industry consists of the following NAICS codes: 31-33

Source: Florida Department of Economic Opportunity, Bureau of Workforce Statistics and Economic Research

**Situational Assessment Data of Florida Manufacturing Workforce Needs and Current Manufacturing Education
Florida State College System**

Summary Florida MFG Workforce Needs -Regions 1-24

FL Service College	Workforce Region (WFR)	WFR	Occupation Estimates for the Manufacturing Industry (Selected Occupations)*		FDOE 2020-2021 Student Enrollment
			2021	2029	ET & Manufacturing AS Related Programs
TOTAL			542,953	616,103	5,354
PENSACOLA STATE COLLEGE	CareerSource Escarosa (Escambia, Santa Rosa Counties)	1	10,375	11,669	106
NORTHWEST FLORIDA STATE COLLEGE	CareerSource Okaloosa Walton (Okaloosa, Walton Counties)	2	7,508	8,691	56
CHIPOLA COLLEGE	CareerSource Chipola (Calhoun, Holmes, Jackson, Liberty, Washington Counties)	3	1,151	1,275	6
GULF COAST STATE COLLEGE	CareerSource Gulf Coast (Bay, Franklin, Gulf Counties)	4	4,884	5,347	106
TALLAHASSEE COMMUNITY COLLEGE	CareerSource Capital Region (Gadsden, Leon, Wakulla Counties)	5	8,697	9,653	34
NORTH FLORIDA COLLEGE	CareerSource North Florida (Hamilton, Jefferson, Lafayette, Madison, Suwannee, Taylor Counties)	6	2,320	2,538	13
FLORIDA GATEWAY COLLEGE	CareerSource Florida Crown (Columbia, Dixie, Gilchrist, Union Counties)	7	1,788	1,995	no data available
FLORIDA STATE COLLEGE AT JACKSONVILLE	CareerSource Northeast Florida (Baker, Clay, Duval, Nassau, Putnam, St. Johns Counties)	8	47,999	53,125	471
ST. JOHNS RIVER STATE COLLEGE	CareerSource Northeast Florida (Baker, Clay, Duval, Nassau, Putnam, St. Johns Counties)				
SANTA FE COLLEGE	CareerSource North Central Florida (Alachua, Bradford Counties)	9	7,246	8,102	77
COLLEGE OF CENTRAL FLORIDA	CareerSource Citrus Levy Marion (Citrus, Levy, Marion Counties)	10	6,546	7,472	114
DAYTONA STATE COLLEGE	CareerSource Flagler Volusia (Flagler, Volusia Counties)	11	12,041	13,661	115
LAKE-SUMTER STATE COLLEGE	CareerSource Central Florida (Lake, Orange, Osceola, Seminole, Sumter Counties)	12	74,721	88,007	993
SEMINOLE STATE COLLEGE OF FLORIDA	CareerSource Central Florida (Lake, Orange, Osceola, Seminole, Sumter Counties)				
VALENCIA COLLEGE	CareerSource Central Florida (Lake, Orange, Osceola, Seminole, Sumter Counties)				
EASTERN FLORIDA STATE COLLEGE	CareerSource Brevard (Brevard County)	13	16,725	19,264	701
ST. PETERSBURG COLLEGE	CareerSource Pinellas (Pinellas County)	14	32,315	36,112	215
HILLSBOROUGH COMMUNITY COLLEGE	CareerSource Tampa Bay (Hillsborough County)	15	46,234	52,103	224
PASCO-HERNANDO STATE COLLEGE	CareerSource Pasco Hernando (Hernando, Pasco Counties)	16	9,451	10,954	103
POLK STATE COLLEGE	CareerSource Polk (Polk County)	17	17,530	19,144	121
TATE COLLEGE OF FLORIDA, MANATEE-SARASOT	CareerSource Suncoast (Manatee, Sarasota Counties)	18	18,822	21,543	58
SOUTH FLORIDA STATE COLLEGE	CareerSource Heartland (DeSoto, Hardee, Highlands, Okeechobee Counties)	19	2,396	2,692	51
INDIAN RIVER STATE COLLEGE	CareerSource Research Coast (Indian River, Martin, St. Lucie Counties)	20	12,374	14,249	120
PALM BEACH STATE COLLEGE	CareerSource Palm Beach County (Palm Beach County)	21	38,187	44,033	250
BROWARD COLLEGE	CareerSource Broward (Broward County)	22	55,464	62,849	583
THE COLLEGE OF THE FLORIDA KEYS	CareerSource South Florida (Miami-Dade, Monroe Counties)	23	80,389	90,036	334
MIAMI DADE COLLEGE	CareerSource South Florida (Miami-Dade, Monroe Counties)				
FLORIDA SOUTHWESTERN STATE COLLEGE	CareerSource Southwest Florida (Charlotte, Collier, Glades, Hendry, Lee Counties)	24	27,790	31,589	503

WORKFORCE DEVELOPMENT IN FLORIDA Occupation Estimates for the Manufacturing Industry* Years 2021 2029									FDOE 2020-2021 Student Enrollment Serving College(s) ET & Manufacturing AS Related Programs	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Student enrolled at 28 FL State/Community Colleges
		2021	2029	Growth	Percent Growth			FL†	BLS†	
Total Selected Manufacturing Related Occupations		551,079	626,704							5,354
11-3051	Industrial Production Managers	6,091	6,872	781	12.8	3,918	49.19	A	B	
11-1021	General and Operations Managers	148,703	171,600	22,897	15.4	118,040	42.13	A	B	
17-2112	Industrial Engineers	11,066	13,496	2,430	22.0	8,228	39.21	B	B	
17-3023	Electrical and Electronic Engineering Technicians	6,850	7,824	974	14.2	5,845	29.39	A	A	
17-3026	Industrial Engineering Technicians	2,001	2,292	291	14.5	1,716	25.23	PS	A	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	22,177	24,820	2,643	11.9	19,509	34.59	PS	B	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	87,576	95,907	8,331	9.5	74,179	26.05	PS	HS	
47-2211	Sheet Metal Workers	8,660	9,710	1,050	12.1	7,661	20.32	PS	HS	
49-1011	FirstLine Supervisors of Mechanics, Installers, and Repairers	30,777	34,764	3,987	13.0	25,107	29.30	PS	HS	
49-3011	Aircraft Mechanics and Service Technicians	13,409	16,472	3,063	22.8	12,067	31.16	PS	PS	
49-9041	Industrial Machinery Mechanics	14,297	17,004	2,707	18.9	12,687	23.84	PS	HS	
49-9071	Maintenance and Repair Workers, General	103,972	118,999	15,027	14.5	91,747	17.33	PS	HS	
51-1011	FirstLine Supervisors of Production and Operating Workers	25,359	28,249	2,890	11.4	21,784	27.48	PS	HS	
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	995	988	7	0.7	816	16.76	HS	HS	
51-4041	Machinists	9,549	10,855	1,306	13.7	8,806	20.18	PS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	2,983	2,965	18	0.6	2,039	14.57	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	14,861	16,856	1,995	13.4	13,971	19.39	PS	HS	
51-6031	Sewing Machine Operators	5,640	6,543	903	16.0	5,808	12.85	NR	NR	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	1,262	1,411	149	11.8	1,248	14.05	HS	HS	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	2,151	2,421	270	12.6	2,488	14.91	HS	HS	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	5,486	6,090	604	11.0	5,340	16.54	HS	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	18,589	20,633	2,044	11.0	17,954	13.51	NR	HS	
51-9198	HelpersProduction Workers	8,625	9,933	1,308	15.2	11,214	13.21	NR	HS	

* Annual wage rates are reported where hourly wage rates do not exist but annual wage rates do. These rates are italicized.

** Education levels are abbreviated as follow.

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary nondegree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 1 - ESCAMBIA AND SANTA ROSA COUNTIES Occupation Estimates for the Manufacturing Industry* Years 2021 - 2029										FDOE 2020-2021 Student Enrollment Serving College(s) ET & Manufacturing AS Related Programs		
SOC Code	códigos ok	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Vlook	Pensacola State
			2021	2029	Growth	Percent Growth			FL**	BLS**		
Total Manufacturing Related Occupations			10.375	11.669								106
51-6031	516031	Sewing Machine Operators	42	61	19	45,2	61	14.76	NR	NR	yes	
17-2112	172112	Industrial Engineers	97	124	27	27,8	79	39.29	B	B	yes	
51-9198	519198	Helpers--Production Workers	204	258	54	26,5	300	12.64	NR	HS	yes	
51-4072	514072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	44	55	11	25,0	45	-	PS	HS	yes	
51-7042	517042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	33	41	8	24,2	44	14.20	HS	HS	yes	
49-9041	499041	Industrial Machinery Mechanics	504	621	117	23,2	476	28.22	PS	HS	yes	
49-3011	493011	Aircraft Mechanics and Service Technicians	771	917	146	18,9	655	33.73	PS	PS	yes	
51-4041	514041	Machinists	116	137	21	18,1	114	18.55	PS	HS	yes	
11-3051	113051	Industrial Production Managers	81	95	14	17,3	57	49.80	A	B	yes	
11-1021	111021	General and Operations Managers	2.957	3.328	371	12,5	2.238	35.97	A	B	yes	
51-1011	511011	First-Line Supervisors of Production and Operating Workers	515	579	64	12,4	450	30.92	PS	HS	yes	
49-9071	499071	Maintenance and Repair Workers, General	1.982	2.166	184	9,3	1.612	16.93	PS	HS	yes	
41-4012	414012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	1.482	1.618	136	9,2	1.248	24.91	PS	HS	yes	
17-3023	173023	Electrical and Electronic Engineering Technicians	176	191	15	8,5	137	35.08	A	A	yes	
41-4011	414011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	164	178	14	8,5	137	24.12	PS	B	yes	
49-1011	491011	First-Line Supervisors of Mechanics, Installers, and Repairers	769	830	61	7,9	576	29.64	PS	HS	yes	
51-4121	514121	Welders, Cutters, Solderers, and Brazers	343	370	27	7,9	296	19.64	PS	HS	yes	
51-9111	519111	Packaging and Filling Machine Operators & Tenders	95	100	5	5,3	84	17.55	NR	HS	yes	

* Annual wage rates are reported where hourly wage rates do not exist but annual wage rates do. These rates are italicized.
** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 2 OKALOOSA AND WALTON COUNTIES Occupation Estimates for the Manufacturing Industry*										FDOE 2020-2021 Student Enrollment Serving College(s) ET & Manufacturing AS Related Programs	
Years 2021 - 2029										Northwest Florida State College	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education			Vlook
		2021	2029	Growth	Percent Growth			FL**	BLS**		
Total Manufacturing Related Occupations		7.508	8.691								56
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	346	456	110	31,8	398	26.85	PS	B	yes	
17-2112	Industrial Engineers	222	279	57	25,7	175	41.28	B	B	yes	
49-3011	Aircraft Mechanics and Service Technicians	440	542	102	23,2	398	30.50	PS	PS	yes	
17-3023	Electrical and Electronic Engineering Technicians	330	389	59	17,9	298	35.48	A	A	yes	
11-1021	General and Operations Managers	2.247	2.625	378	16,8	1.826	35.85	A	B	yes	
47-2211	Sheet Metal Workers	138	159	21	15,2	128	32.85	PS	HS	yes	
49-9071	Maintenance and Repair Workers, General	1.585	1.812	227	14,3	1.396	17.74	PS	HS	yes	
51-9198	Helpers--Production Workers	28	32	4	14,3	36	11.17	NR	HS	yes	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	526	599	73	13,9	436	29.88	PS	HS	yes	
51-6031	Sewing Machine Operators	17	19	2	11,8	16	16.64	NR	NR	yes	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	51	57	6	11,8	59	-	HS	HS	yes	
49-9041	Industrial Machinery Mechanics	123	136	13	10,6	96	29.50	PS	HS	yes	
51-4121	Welders, Cutters, Solderers, and Brazers	163	179	16	9,8	145	20.71	PS	HS	yes	
11-3051	Industrial Production Managers	64	70	6	9,4	38	45.04	A	B	yes	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	897	980	83	9,3	757	19.43	PS	HS	yes	
51-1011	First-Line Supervisors of Production and Operating Workers	220	238	18	8,2	179	24.95	PS	HS	yes	
51-4041	Machinists	111	119	8	7,2	92	20.84	PS	HS	yes	

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** Education levels are abbreviated as follow.

Florida	U.S. Department of Labor, Bureau of Labor Statistics
A: associate degree	A: associate degree
B: bachelor's degree	B: bachelor's degree
HS: high school diploma or GED	D: doctoral or professional degree
M+: master's, doctoral or professional degree	HS: high school diploma or GED
NR: no formal educational credential required	M: master's degree
PS: postsecondary non-degree award	NR: no formal educational credential required
	PS: postsecondary non-degree award
	SC: some college, no degree

WWORKFORCE DEVELOPMENT AREA 3 - CALHOUN, HOLMES, JACKSON, LIBERTY, AND WASHINGTON COUNTIES									FDOE 2020-2021	
Occupation Estimates for the Manufacturing Industry*									Student Enrollment	
Years 2021 - 2029									Serving College(s)	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Chipola College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		1,151	1,275							6
11-1021	General and Operations Managers	406	454	48	11.8	304	32.21	A	B	
11-3051	Industrial Production Managers	25	28	3	12.0	16	36.86	A	B	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	103	114	11	10.7	81	37.83	PS	HS	
49-9041	Industrial Machinery Mechanics	64	76	12	18.8	56	20.28	PS	HS	
49-9071	Maintenance and Repair Workers, General	244	263	19	7.8	193	16.59	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	92	96	4	4.3	70	19.88	PS	HS	
51-4041	Machinists	9	11	2	22.2	10	-	PS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	14	16	2	14.3	12	-	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	59	70	11	18.6	60	18.46	PS	HS	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	62	67	5	8.1	58	14.58	HS	HS	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	73	80	7	9.6	82	18.48	HS	HS	

* Annual wage rates are reported where hourly wage rates do not exist but annual wage rates do. These rates are italicized.

** Education levels are abbreviated as follow.

Florida	U.S. Department of Labor, Bureau of Labor Statistics
A: associate degree	A: associate degree
B: bachelor's degree	B: bachelor's degree
HS: high school diploma or GED	D: doctoral or professional degree
M+: master's, doctoral or professional degree	HS: high school diploma or GED
NR: no formal educational credential required	M: master's degree
PS: postsecondary non-degree award	NR: no formal educational credential required
	PS: postsecondary non-degree award
	SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 4 - BAY, FRANKLIN, AND GULF COUNTIES											FDOE 2020-2021 Student Enrollment Serving College(s)
Occupation Estimates for the Manufacturing Industry*											
Years 2021 - 2029											
		Employment					Education				Gulf Coast State College
SOC Code	SOC Title	2021	2029	Growth	Percent Growth	Total Job Openings	2020 Median Hourly Wage (\$)*	FL**	BLS**	Vlook	
Total Manufacturing Related Occupations		4.884	5.347								106
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	5	7	2	40,0	7	-	HS	HS	yes	
17-2112	Industrial Engineers	44	56	12	27,3	36	46.60	B	B	yes	
17-3023	Electrical and Electronic Engineering Technicians	122	151	29	23,8	120	36.46	A	A	yes	
49-9041	Industrial Machinery Mechanics	185	209	24	13,0	150	25.32	PS	HS	yes	
11-1021	General and Operations Managers	1.392	1.554	162	11,6	1.037	35.10	A	B	yes	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	77	85	8	10,4	66	25.60	PS	B	yes	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	338	369	31	9,2	259	29.60	PS	HS	yes	
51-4121	Welders, Cutters, Solderers, and Brazers	184	201	17	9,2	163	19.80	PS	HS	yes	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	673	726	53	7,9	555	23.23	PS	HS	yes	
49-9071	Maintenance and Repair Workers, General	1.440	1.545	105	7,3	1.132	16.60	PS	HS	yes	
51-1011	First-Line Supervisors of Production and Operating Workers	329	348	19	5,8	257	29.60	PS	HS	yes	
51-9111	Packaging and Filling Machine Operators & Tenders	35	37	2	5,7	31	13.55	NR	HS	yes	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	6	6	0	0,0	6	-	HS	HS	yes	
11-3051	Industrial Production Managers	54	53	-1	-1,9	25	31.96	A	B	yes	

* Annual wage rates are reported where hourly wage rates do not exist but annual wage rates do. These rates are italicized.

** Education levels are abbreviated as follow.

Florida	U.S. Department of Labor, Bureau of Labor Statistics
A: associate degree	A: associate degree
B: bachelor's degree	B: bachelor's degree
HS: high school diploma or GED	D: doctoral or professional degree
M+: master's, doctoral or professional degree	HS: high school diploma or GED
NR: no formal educational credential required	M: master's degree
PS: postsecondary non-degree award	NR: no formal educational credential required
	PS: postsecondary non-degree award
	SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 5 GADSDEN, LEON, AND WAKULLA COUNTIES									FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry*										
Years 2021 - 2029										
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Tallahassee Community Collegee
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		8.697	9.653							34
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	123	152	29	23,6	127	34.84	PS	B	
49-9041	Industrial Machinery Mechanics	188	231	43	22,9	177	18.88	PS	HS	
11-3051	Industrial Production Managers	58	69	11	19,0	42	55.47	A	B	
51-4121	Welders, Cutters, Solderers, and Brazers	163	191	28	17,2	161	18.04	PS	HS	
51-9198	HelpersProduction Workers	185	211	26	14,1	238	15.53	NR	HS	
49-9071	Maintenance and Repair Workers, General	2.002	2.265	263	13,1	1.731	15.98	PS	HS	
51-4041	Machinists	115	129	14	12,2	103	16.82	PS	HS	
51-6031	Sewing Machine Operators	34	38	4	11,8	33		NR	NR	
11-1021	General and Operations Managers	3.554	3.929	375	10,6	2.598	37.35	A	B	
49-1011	FirstLine Supervisors of Mechanics, Installers, and Repairers	707	781	74	10,5	553	26.26	PS	HS	
51-1011	FirstLine Supervisors of Production and Operating Workers	313	340	27	8,6	258	24.42	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	1.114	1.181	67	6,0	891	24.63	PS	HS	
17-2112	Industrial Engineers	140	135	5	3,6	60	51.71	B	B	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	1	1	0	0,0	0		PS	HS	

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** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary nondegree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary nondegree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 6 - HAMILTON, JEFFERSON, LAFAYETTE, MADISON, SUWANNEE, AND TAYLOR COUNTIES									FDOE 2020-2021	
Occupation Estimates for the Manufacturing Industry*									Student Enrollment	
Years 2021 - 2029									Serving College(s)	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		North Florida College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		2.320	2.538							13
49-9041	Industrial Machinery Mechanics	305	365	60	19,7	274	19.08	PS	HS	
51-9198	Helpers--Production Workers	60	68	8	13,3	76	12.71	NR	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	370	416	46	12,4	365	11.66	NR	HS	
49-9071	Maintenance and Repair Workers, General	406	446	40	9,9	334	14.93	PS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	87	94	7	8,0	66	25.94	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	121	130	9	7,4	104	16.59	PS	HS	
11-1021	General and Operations Managers	520	556	36	6,9	355	32.15	A	B	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	73	77	4	5,5	56	-	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	224	230	6	2,7	166	23.58	PS	HS	
51-4041	Machinists	95	97	2	2,1	72	16.85	PS	HS	
11-3051	Industrial Production Managers	17	17	0	0,0	9	40.39	A	B	
17-3026	Industrial Engineering Technicians	5	5	0	0,0	3	-	PS	A	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	37	37	0	0,0	30	12.04	HS	HS	

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** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 7 - COLUMBIA, DIXIE, GILCHRIST, AND UNION COUNTIES										FDOE 2020-2021
Occupation Estimates for the Manufacturing Industry*										Student Enrollment
Years 2021 - 2029										Serving College(s)
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Florida Gateway College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		1.788	1.995							No Data
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	18	25	7	38,9	22	-	PS	HS	
11-3051	Industrial Production Managers	21	26	5	23,8	17	40.39	A	B	
51-9111	Packaging and Filling Machine Operators & Tenders	31	38	7	22,6	35	11.66	NR	HS	
49-9041	Industrial Machinery Mechanics	119	145	26	21,8	111	19.08	PS	HS	
51-9198	Helpers--Production Workers	43	52	9	20,9	60	12.71	NR	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	92	108	16	17,4	91	16.59	PS	HS	
51-4041	Machinists	32	36	4	12,5	29	16.85	PS	HS	
49-9071	Maintenance and Repair Workers, General	422	471	49	11,6	356	14.93	PS	HS	
11-1021	General and Operations Managers	610	671	61	10,0	441	32.15	A	B	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	90	99	9	10,0	70	25.94	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	179	195	16	8,9	147	23.58	PS	HS	
17-3026	Industrial Engineering Technicians	6	6	0	0,0	4	-	PS	A	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	125	123	-2	-1,6	100	12.04	HS	HS	

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** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 8 - BAKER, CLAY, DUVAL, NASSAU, PUTNAM, AND SAINT JOHNS COUNTIES										FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry* Years 2021 - 2029											
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Florida State College at Jacksonville	St. John River State College
		2021	2029	Growth	Percent Growth			FL**	BLS**		
Total Manufacturing Related Occupations		47.999	53.125							321	150
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	70	85	15	21,4	93	17.92	HS	HS		
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	230	276	46	20,0	251	13.84	HS	HS		
49-3011	Aircraft Mechanics and Service Technicians	1.923	2.300	377	19,6	1.686	28.14	PS	PS		
11-1021	General and Operations Managers	12.299	13.913	1.614	13,1	9.655	41.71	A	B		
51-4041	Machinists	1.009	1.136	127	12,6	953	19.13	PS	HS		
17-2112	Industrial Engineers	1.155	1.296	141	12,2	816	40.54	B	B		
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	2.012	2.258	246	12,2	1.807	46.38	PS	B		
51-4121	Welders, Cutters, Solderers, and Brazers	933	1.042	109	11,7	892	19.71	PS	HS		
17-3026	Industrial Engineering Technicians	213	237	24	11,3	169	27.55	PS	A		
11-3051	Industrial Production Managers	578	642	64	11,1	373	51.52	A	B		
17-3023	Electrical and Electronic Engineering Technicians	680	755	75	11,0	561	38.98	A	A		
47-2211	Sheet Metal Workers	1.329	1.471	142	10,7	1.166	22.60	PS	HS		
49-9071	Maintenance and Repair Workers, General	7.563	8.346	783	10,4	6.421	17.88	PS	HS		
49-9041	Industrial Machinery Mechanics	1.575	1.722	147	9,3	1.457	24.13	PS	HS		
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2.941	3.209	268	9,1	2.306	29.36	PS	HS		
51-9198	Helpers--Production Workers	924	1.006	82	8,9	1.168	12.83	NR	HS		
51-6031	Sewing Machine Operators	672	731	59	8,8	650	14.52	NR	NR		
51-1011	First-Line Supervisors of Production and Operating Workers	2.344	2.534	190	8,1	1.986	26.77	PS	HS		
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	6.652	7.168	516	7,8	5.607	28.65	PS	HS		
51-9111	Packaging and Filling Machine Operators & Tenders	1.799	1.888	89	4,9	1.607	13.46	NR	HS		
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	647	663	16	2,5	565	15.75	HS	HS		
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	288	295	7	2,4	184	14.59	PS	HS		
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	163	152	-11	-6,7	111	16.30	HS	HS		

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Florida

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HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 9 - ALACHUA AND BRADFORD COUNTIES
Occupation Estimates for the Manufacturing Industry*
Years 2021 - 2029

**FDOE 2020-2021
Student Enrollment
Serving College(s)**

		Employment						Education		Santa Fe College
SOC Code	SOC Title	2021	2029	Growth	Percent Growth	Total Job Openings	2020 Median Hourly Wage (\$)*	FL**	BLS**	
Total Manufacturing Related Occupations		7.246	8.102							
17-2112	Industrial Engineers	155	201	46	29,7	130	40.74	B	B	77
51-4041	Machinists	44	55	11	25,0	47	19.14	PS	HS	
17-3026	Industrial Engineering Technicians	51	61	10	19,6	47	24.41	PS	A	
49-9041	Industrial Machinery Mechanics	122	142	20	16,4	105	18.82	PS	HS	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	61	71	10	16,4	65	16.73	HS	HS	
11-3051	Industrial Production Managers	82	95	13	15,9	56	50.59	A	B	
51-9111	Packaging and Filling Machine Operators & Tenders	185	213	28	15,1	189	13.90	NR	HS	
11-1021	General and Operations Managers	1.989	2.274	285	14,3	1.551	38.16	A	B	
51-9198	Helpers--Production Workers	92	103	11	12,0	115	12.57	NR	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	87	97	10	11,5	79	17.87	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	1.189	1.314	125	10,5	1.023	19.39	PS	HS	
49-9071	Maintenance and Repair Workers, General	1.649	1.818	169	10,2	1.362	16.92	PS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	419	459	40	9,5	323	28.01	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	314	343	29	9,2	260	29.75	PS	HS	
51-6031	Sewing Machine Operators	164	179	15	9,1	153	11.80	NR	NR	
47-2211	Sheet Metal Workers	250	268	18	7,2	205	44,496.00	PS	HS	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	301	320	19	6,3	242	31.32	PS	B	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	55	54	-1	-1,8	44	15.11	HS	HS	
49-3011	Aircraft Mechanics and Service Technicians	37	35	-2	-5,4	19	-	PS	PS	

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** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 10 - CITRUS, LEVY, AND MARION COUNTIES									FDOE 2020-2021	
Occupation Estimates for the Manufacturing Industry*									Student Enrollment	
Years 2021 - 2029									Serving College(s)	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		College of Central Florida
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		6.546	7.472							114
17-2112	Industrial Engineers	406	553	147	36,2	373	35.13	B	B	
51-6031	Sewing Machine Operators	88	117	29	33,0	112	13.00	NR	NR	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	30	36	6	20,0	33	18.80	HS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	158	184	26	16,5	144	11.97	PS	HS	
11-3051	Industrial Production Managers	123	143	20	16,3	84	53.21	A	B	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	82	95	13	15,9	99	13.14	HS	HS	
47-2211	Sheet Metal Workers	139	161	22	15,8	130	16.33	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	545	625	80	14,7	492	24.71	PS	HS	
49-9071	Maintenance and Repair Workers, General	1.845	2.087	242	13,1	1.595	14.39	PS	HS	
17-3026	Industrial Engineering Technicians	24	27	3	12,5	20	-	PS	A	
49-9041	Industrial Machinery Mechanics	274	305	31	11,3	215	19.41	PS	HS	
49-3011	Aircraft Mechanics and Service Technicians	18	20	2	11,1	13	18.69	PS	PS	
51-4121	Welders, Cutters, Solderers, and Brazers	504	560	56	11,1	458	17.75	PS	HS	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	82	91	9	11,0	71	31.17	PS	B	
11-1021	General and Operations Managers	2.083	2.308	225	10,8	1.530	35.03	A	B	
51-4041	Machinists	104	115	11	10,6	92	18.77	PS	HS	
17-3023	Electrical and Electronic Engineering Technicians	41	45	4	9,8	33	27.18	A	A	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	1.345	1.468	123	9,1	1.133	25.42	PS	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	210	229	19	9,0	197	12.99	NR	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	532	567	35	6,6	389	25.97	PS	HS	
51-9198	Helpers--Production Workers	60	63	3	5,0	68	12.92	NR	HS	

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** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 11 - FLAGLER AND VOLUSIA COUNTIES									FDOE 2020-2021	
Occupation Estimates for the Manufacturing Industry*									Student Enrollment	
Years 2021 - 2029									Serving College(s)	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Daytona State College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		12.041	13.661							115
17-2112	Industrial Engineers	178	220	42	23,6	136	36.45	B	B	
51-4121	Welders, Cutters, Solderers, and Brazers	464	569	105	22,6	496	17.78	PS	HS	
49-3011	Aircraft Mechanics and Service Technicians	187	227	40	21,4	165	23.75	PS	PS	
11-3051	Industrial Production Managers	164	199	35	21,3	123	49.04	A	B	
51-4041	Machinists	310	370	60	19,4	310	19.01	PS	HS	
49-9041	Industrial Machinery Mechanics	281	334	53	18,9	249	22.33	PS	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	178	210	32	18,0	190	12.75	NR	HS	
51-9198	Helpers--Production Workers	288	333	45	15,6	377	11.84	NR	HS	
11-1021	General and Operations Managers	3.549	4.085	536	15,1	2.804	34.60	A	B	
51-1011	First-Line Supervisors of Production and Operating Workers	827	945	118	14,3	743	28.19	PS	HS	
17-3023	Electrical and Electronic Engineering Technicians	82	93	11	13,4	70	23.41	A	A	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	250	283	33	13,2	225	27.62	PS	B	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	73	82	9	12,3	72	16.33	HS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	684	759	75	11,0	540	26.02	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	1.338	1.484	146	10,9	1.159	27.45	PS	HS	
49-9071	Maintenance and Repair Workers, General	2.756	3.015	259	9,4	2.245	14.95	PS	HS	
51-6031	Sewing Machine Operators	233	255	22	9,4	218	15.78	NR	NR	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	94	95	1	1,1	66	15.37	PS	HS	
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	105	103	-2	-1,9	85	14.81	HS	HS	

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** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 12 - LAKE, ORANGE, OSCEOLA, SEMINOLE AND SUMTER COUNTIES										FDOE 2020-2021 Student Enrollment Serving College(s)		
Occupation Estimates for the Manufacturing Industry* Years 2021 - 2029												
SOC Code	SOC Title	Employment					Education			Lake Sumter State College	Seminole State College of Florida	Valencia college
		2021	2029	Growth	Percent Growth	Total Job Openings	2020 Median Hourly Wage (\$)*	FL**	BLS**			
Total Manufacturing Related Occupations		74.721	88.007							118	317	558
17-2112	Industrial Engineers	1.689	2.150	461	27,3	1.367	38.75	B	B			
49-3011	Aircraft Mechanics and Service Technicians	2.258	2.779	521	23,1	2.039	38.12	PS	PS			
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	147	181	34	23,1	193	15.34	HS	HS			
49-9041	Industrial Machinery Mechanics	1.892	2.310	418	22,1	1.758	23.46	PS	HS			
51-6031	Sewing Machine Operators	554	674	120	21,7	614	15.17	NR	NR			
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	4.384	5.279	895	20,4	4.009	30.73	PS	HS			
49-9071	Maintenance and Repair Workers, General	13.852	16.649	2.797	20,2	13.291	17.02	PS	HS			
11-1021	General and Operations Managers	20.559	24.551	3.992	19,4	17.392	40.72	A	B			
17-3023	Electrical and Electronic Engineering Technicians	1.307	1.561	254	19,4	1.206	26.86	A	A			
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	148	176	28	18,9	162	14.48	HS	HS			
17-3026	Industrial Engineering Technicians	224	265	41	18,3	203	24.24	PS	A			
51-4121	Welders, Cutters, Solderers, and Brazers	1.714	1.992	278	16,2	1.677	19.78	PS	HS			
51-9198	Helpers--Production Workers	1.688	1.956	268	15,9	2.213	12.71	NR	HS			
51-4041	Machinists	879	1.013	134	15,2	829	21.38	PS	HS			
51-1011	First-Line Supervisors of Production and Operating Workers	3.401	3.904	503	14,8	3.077	27.00	PS	HS			
11-3051	Industrial Production Managers	796	911	115	14,4	528	47.30	A	B			
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	2.668	3.030	362	13,6	2.407	40.05	PS	B			
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	11.980	13.571	1.591	13,3	10.761	25.43	PS	HS			
51-9111	Packaging and Filling Machine Operators & Tenders	3.118	3.478	360	11,5	3.036	15.42	NR	HS			
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	1.127	1.244	117	10,4	1.087	15.64	HS	HS			
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	336	333	-3	-0,9	228	12.95	PS	HS			

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** Education levels are abbreviated as follow.

Florida	U.S. Department of Labor, Bureau of Labor Statistics
A: associate degree	A: associate degree
B: bachelor's degree	B: bachelor's degree
HS: high school diploma or GED	D: doctoral or professional degree
M+: master's, doctoral or professional degree	HS: high school diploma or GED
NR: no formal educational credential required	M: master's degree
PS: postsecondary non-degree award	NR: no formal educational credential required
	PS: postsecondary non-degree award
	SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 13 - BREVARD COUNTY									FDOE 2020-2021 Student Enrollment Serving	
Occupation Estimates for the Manufacturing Industry*										
Years 2021 - 2029										
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Eastern Florida State College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		16.725	19.264							701
17-2112	Industrial Engineers	1.599	2.070	471	29,5	1.337	40.33	B	B	
51-9198	Helpers--Production Workers	446	569	123	27,6	665	14.47	NR	HS	
17-3023	Electrical and Electronic Engineering Technicians	732	851	119	16,3	644	31.08	A	A	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	319	370	51	16,0	298	-	PS	B	
51-4041	Machinists	588	681	93	15,8	560	19.84	PS	HS	
49-9071	Maintenance and Repair Workers, General	2.620	3.012	392	15,0	2.329	16.01	PS	HS	
17-3026	Industrial Engineering Technicians	222	255	33	14,9	192	25.76	PS	A	
11-1021	General and Operations Managers	4.000	4.594	594	14,8	3.147	46.27	A	B	
51-6031	Sewing Machine Operators	208	233	25	12,0	202	11.82	NR	NR	
11-3051	Industrial Production Managers	228	255	27	11,8	144	53.37	A	B	
51-4121	Welders, Cutters, Solderers, and Brazers	708	791	83	11,7	649	17.92	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	1.674	1.866	192	11,5	1.462	29.61	PS	HS	
49-9041	Industrial Machinery Mechanics	290	323	33	11,4	229	22.86	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	982	1.088	106	10,8	836	28.12	PS	HS	
49-3011	Aircraft Mechanics and Service Technicians	713	789	76	10,7	528	27.87	PS	PS	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	121	134	13	10,7	137	13.99	HS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	773	850	77	10,0	600	28.82	PS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	75	82	7	9,3	62	13.07	PS	HS	
47-2211	Sheet Metal Workers	339	362	23	6,8	276	23.00	PS	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	88	89	1	1,1	72	11.40	NR	HS	

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** Education levels are abbreviated as follow.

Florida

A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 14 - PINELLAS COUNTY									FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry*										
Years 2021 - 2029										
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		St. Petersburg College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		32.315	36.112							215
49-3011	Aircraft Mechanics and Service Technicians	215	260	45	20,9	188	30.46	PS	PS	
17-2112	Industrial Engineers	1.141	1.350	209	18,3	797	39.51	B	B	
49-9041	Industrial Machinery Mechanics	710	835	125	17,6	618	26.88	PS	HS	
47-2211	Sheet Metal Workers	497	578	81	16,3	468	20.58	PS	HS	
51-9198	Helpers--Production Workers	510	593	83	16,3	672	13.22	NR	HS	
17-3023	Electrical and Electronic Engineering Technicians	349	399	50	14,3	298	26.11	A	A	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	412	470	58	14,1	419	16.57	HS	HS	
11-1021	General and Operations Managers	8.401	9.580	1.179	14,0	6.520	45.39	A	B	
17-3026	Industrial Engineering Technicians	190	213	23	12,1	157	25.85	PS	A	
49-9071	Maintenance and Repair Workers, General	5.325	5.965	640	12,0	4.524	17.50	PS	HS	
51-4041	Machinists	1.182	1.315	133	11,3	1.051	18.82	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	1.016	1.124	108	10,6	917	19.15	PS	HS	
11-3051	Industrial Production Managers	497	549	52	10,5	306	47.68	A	B	
51-9111	Packaging and Filling Machine Operators & Tenders	1.655	1.822	167	10,1	1.577	14.07	NR	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	1.646	1.810	164	10,0	1.278	29.94	PS	HS	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	30	33	3	10,0	29	15.63	HS	HS	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	1.617	1.777	160	9,9	1.378	28.51	PS	B	
51-1011	First-Line Supervisors of Production and Operating Workers	1.900	2.081	181	9,5	1.584	28.17	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	4.362	4.695	333	7,6	3.584	26.89	PS	HS	
51-6031	Sewing Machine Operators	235	244	9	3,8	202	12.58	NR	NR	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	366	363	-3	-0,8	249	14.99	PS	HS	
51-4021	Extruding & Drawing Machine Setters, Operators. & Tenders, Metal & Plastic	59	56	-3	-5,1	45	22.61	HS	HS	

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A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 15 - HILLSBOROUGH COUNTY									FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry*										
Years 2021 - 2029										
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Hillsborough Community College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		46.234	52.103							224
51-6031	Sewing Machine Operators	268	326	58	21,6	297	12.58	NR	NR	
17-2112	Industrial Engineers	878	1.065	187	21,3	646	39.51	B	B	
51-9198	Helpers--Production Workers	741	892	151	20,4	1.022	13.22	NR	HS	
17-3026	Industrial Engineering Technicians	85	100	15	17,6	77	25.85	PS	A	
11-3051	Industrial Production Managers	544	635	91	16,7	377	47.68	A	B	
51-9111	Packaging and Filling Machine Operators & Tenders	2.203	2.569	366	16,6	2.301	14.07	NR	HS	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	630	734	104	16,5	661	16.57	HS	HS	
49-3011	Aircraft Mechanics and Service Technicians	509	589	80	15,7	410	30.46	PS	PS	
49-9071	Maintenance and Repair Workers, General	7.244	8.354	1.110	15,3	6.477	17.50	PS	HS	
11-1021	General and Operations Managers	12.984	14.898	1.914	14,7	10.196	45.39	A	B	
51-4041	Machinists	745	852	107	14,4	694	18.82	PS	HS	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	93	105	12	12,9	94	15.63	HS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2.550	2.844	294	11,5	2.032	29.94	PS	HS	
17-3023	Electrical and Electronic Engineering Technicians	381	422	41	10,8	308	26.11	A	A	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	2.469	2.728	259	10,5	2.124	28.51	PS	B	
49-9041	Industrial Machinery Mechanics	1.123	1.241	118	10,5	872	26.88	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	2.007	2.197	190	9,5	1.672	28.17	PS	HS	
47-2211	Sheet Metal Workers	752	815	63	8,4	627	20.58	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	8.231	8.848	617	7,5	6.747	26.89	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	1.569	1.681	112	7,1	1.339	19.15	PS	HS	
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	69	69	0	0,0	58	22.61	HS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	159	139	-20	-12,6	83	14.99	PS	HS	

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M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 16 - HERNANDO AND PASCO COUNTIES									FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry*										
Years 2021 - 2029										
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Pasco-Hernando State College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		9.451	10.954							103
49-3011	Aircraft Mechanics and Service Technicians	30	40	10	33,3	31	30.46	PS	PS	
17-3026	Industrial Engineering Technicians	10	13	3	30,0	11	25.85	PS	A	
17-2112	Industrial Engineers	136	176	40	29,4	114	39.51	B	B	
49-9041	Industrial Machinery Mechanics	262	317	55	21,0	239	26.88	PS	HS	
11-3051	Industrial Production Managers	97	117	20	20,6	71	47.68	A	B	
51-4041	Machinists	220	262	42	19,1	219	18.82	PS	HS	
17-3023	Electrical and Electronic Engineering Technicians	59	70	11	18,6	54	26.11	A	A	
11-1021	General and Operations Managers	2.704	3.204	500	18,5	2.255	45.39	A	B	
51-9111	Packaging and Filling Machine Operators & Tenders	264	312	48	18,2	282	14.07	NR	HS	
51-9198	Helpers--Production Workers	171	202	31	18,1	230	13.22	NR	HS	
51-6031	Sewing Machine Operators	42	49	7	16,7	44	12.58	NR	NR	
51-4121	Welders, Cutters, Solderers, and Brazers	397	460	63	15,9	387	19.15	PS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	626	721	95	15,2	529	29.94	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	480	549	69	14,4	431	28.17	PS	HS	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	308	352	44	14,3	281	28.51	PS	B	
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	14	16	2	14,3	15	15.63	HS	HS	
49-9071	Maintenance and Repair Workers, General	1.892	2.148	256	13,5	1.646	17.50	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	1.325	1.493	168	12,7	1.179	26.89	PS	HS	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	112	126	14	12,5	112	16.57	HS	HS	
47-2211	Sheet Metal Workers	230	256	26	11,3	200	20.58	PS	HS	
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	9	9	0	0,0	7	22.61	HS	HS	
51-4072	Molding, Coremaking & Casting Machine Set.. Oper. & Tend.. Metal & Plastic	63	62	-1	-1,6	43	14.99	PS	HS	

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A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

B: bachelor's degree

D: doctoral or professional degree

HS: high school diploma or GED

M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 17 - POLK COUNTY									FDOE 2020-2021	
Occupation Estimates for the Manufacturing Industry*									Student Enrollment	
Years 2021 - 2029									Serving College(s)	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Polk State College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		17.530	19.144							121
51-6031	Sewing Machine Operators	91	124	33	36,3	120	11.55	NR	NR	
17-2112	Industrial Engineers	174	198	24	13,8	112	38.51	B	B	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	975	1.092	117	12,0	859	31.53	PS	B	
11-1021	General and Operations Managers	3.377	3.756	379	11,2	2.498	41.47	A	B	
49-9041	Industrial Machinery Mechanics	1.164	1.291	127	10,9	910	27.13	PS	HS	
47-2211	Sheet Metal Workers	229	253	24	10,5	197	20.16	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	1.200	1.321	121	10,1	1.073	21.82	PS	HS	
49-3011	Aircraft Mechanics and Service Technicians	135	148	13	9,6	98	28.65	PS	PS	
49-9071	Maintenance and Repair Workers, General	2.688	2.941	253	9,4	2.190	18.41	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	2.409	2.624	215	8,9	2.022	26.84	PS	HS	
51-4041	Machinists	286	311	25	8,7	245	19.21	PS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	988	1.066	78	7,9	740	32.19	PS	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	1.165	1.245	80	6,9	1.058	14.78	NR	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	1.214	1.292	78	6,4	961	27.97	PS	HS	
17-3026	Industrial Engineering Technicians	42	44	2	4,8	31	18.51	PS	A	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	332	347	15	4,5	293	16.76	HS	HS	
51-9198	Helpers--Production Workers	526	549	23	4,4	596	12.69	NR	HS	
17-3023	Electrical and Electronic Engineering Technicians	58	60	2	3,4	42	26.69	A	A	
11-3051	Industrial Production Managers	297	303	6	2,0	151	57.47	A	B	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	180	179	-1	-0.6	123	17.66	PS	HS	

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Florida

A: associate degree

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HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

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D: doctoral or professional degree

HS: high school diploma or GED

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NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 18 - MANATEE AND SARASOTA COUNTIES

Occupation Estimates for the Manufacturing Industry*

Years 2021 - 2029

FDOE 2020-2021
Student Enrollment
Serving College(s)

SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		State College of Florida, Manatee-Sarasota
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		18.822	21.543							58
49-9041	Industrial Machinery Mechanics	423	545	122	28,8	430	22.30	PS	HS	
17-3026	Industrial Engineering Technicians	65	83	18	27,7	67	23.65	PS	A	
17-2112	Industrial Engineers	333	411	78	23,4	254	35.73	B	B	
49-3011	Aircraft Mechanics and Service Technicians	48	59	11	22,9	43	24.76	PS	PS	
51-4121	Welders, Cutters, Solderers, and Brazers	559	678	119	21,3	586	20.64	PS	HS	
17-3023	Electrical and Electronic Engineering Technicians	98	116	18	18,4	89	27.44	A	A	
11-3051	Industrial Production Managers	183	214	31	16,9	128	49.13	A	B	
11-1021	General and Operations Managers	5.500	6.421	921	16,7	4.462	41.95	A	B	
51-9198	Helpers--Production Workers	145	167	22	15,2	188	13.57	NR	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	959	1.104	145	15,1	872	27.77	PS	HS	
49-9071	Maintenance and Repair Workers, General	4.319	4.952	633	14,7	3.823	18.99	PS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	1.001	1.137	136	13,6	825	28.74	PS	HS	
51-6031	Sewing Machine Operators	214	240	26	12,1	208	12.53	NR	NR	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	320	355	35	10,9	277	26.77	PS	B	
51-4041	Machinists	340	375	35	10,3	298	19.04	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	3.509	3.835	326	9,3	2.961	26.48	PS	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	322	352	30	9,3	303	17.99	NR	HS	
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	104	111	7	6,7	97	15.02	HS	HS	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	106	113	7	6,6	96	15.35	HS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	274	275	1	0,4	191	15.00	PS	HS	

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M+: master's, doctoral or professional degree

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PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

A: associate degree

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M: master's degree

NR: no formal educational credential required

PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 19 - DE SOTO, HARDEE, HIGHLANDS AND OKEECHOBEE COUNTIES									FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry*										
Years 2021 - 2029										
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		South Florida State College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		2,396	2,692							51
49-9041	Industrial Machinery Mechanics	142	176	34	23,9	135	24.68	PS	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	154	182	28	18,2	164	9.43	NR	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	239	271	32	13,4	197	22.83	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	146	163	17	11,6	126	24.74	PS	HS	
49-9071	Maintenance and Repair Workers, General	624	696	72	11,5	526	15.72	PS	HS	
11-1021	General and Operations Managers	988	1,100	112	11,3	733	28.58	A	B	
47-2211	Sheet Metal Workers	28	31	3	10,7	24	17.69	PS	HS	
11-3051	Industrial Production Managers	21	23	2	9,5	12	44.02	A	B	
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	2	2	0	0,0	1	-	HS	HS	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	45	42	-3	-6,7	33	18.19	HS	HS	
17-3023	Electrical and Electronic Engineering Technicians	7	6	-1	-14,3	4	-	A	A	

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A: associate degree

B: bachelor's degree

HS: high school diploma or GED

M+: master's, doctoral or professional degree

NR: no formal educational credential required

PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

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WORKFORCE DEVELOPMENT AREA 20 - INDIAN RIVER, MARTIN, AND SAINT LUCIE COUNTIES

Occupation Estimates for the Manufacturing Industry*

Years 2021 - 2029

FDOE 2020-2021
Student Enrollment
Serving College(s)

		Employment						Education		Indian River State College
SOC Code	SOC Title	2021	2029	Growth	Percent Growth	Total Job Openings	2020 Median Hourly Wage (\$)*	FL**	BLS**	
Total Manufacturing Related Occupations		12.374	14.249							
17-2112	Industrial Engineers	161	214	53	32,9	142	36.22	B	B	120
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	344	421	77	22,4	352	24.69	PS	B	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	116	140	24	20,7	148	9.92	HS	HS	
51-4041	Machinists	229	274	45	19,7	230	20.08	PS	HS	
11-3051	Industrial Production Managers	100	119	19	19,0	72	42.02	A	B	
49-9041	Industrial Machinery Mechanics	133	157	24	18,0	117	26.74	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	358	421	63	17,6	357	21.16	PS	HS	
47-2211	Sheet Metal Workers	279	327	48	17,2	266	19.43	PS	HS	
17-3026	Industrial Engineering Technicians	18	21	3	16,7	16	32.16	PS	A	
51-6031	Sewing Machine Operators	117	136	19	16,2	121	15.45	NR	NR	
49-3011	Aircraft Mechanics and Service Technicians	387	448	61	15,8	313	38.26	PS	PS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	2.118	2.447	329	15,5	1.968	23.60	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	706	813	107	15,2	643	26.07	PS	HS	
11-1021	General and Operations Managers	3.220	3.692	472	14,7	2.525	36.96	A	B	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	630	722	92	14,6	528	26.16	PS	HS	
49-9071	Maintenance and Repair Workers, General	2.850	3.258	408	14,3	2.509	16.47	PS	HS	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	73	79	6	8,2	68	18.19	HS	HS	
51-9198	Helpers--Production Workers	170	183	13	7,6	202	11.82	NR	HS	
51-9111	Packaging and Filling Machine Operators & Tenders	332	345	13	3,9	288	12.69	NR	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	33	32	-1	-3,0	22	16.72	PS	HS	

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U.S. Department of Labor, Bureau of Labor Statistics

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WORKFORCE DEVELOPMENT AREA 21 - PALM BEACH COUNTY									FDOE 2020-2021	
Occupation Estimates for the Manufacturing Industry*									Student Enrollment	
Years 2021 - 2029									Serving College(s)	
SOC Code	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Palm Beach State College
		2021	2029	Growth	Percent Growth			FL**	BLS**	
Total Manufacturing Related Occupations		38.187	44.033							250
17-2112	Industrial Engineers	532	655	123	23,1	403	41.78	B	B	
51-4041	Machinists	746	889	143	19,2	744	21.59	PS	HS	
49-3011	Aircraft Mechanics and Service Technicians	856	1.017	161	18,8	725	35.52	PS	PS	
51-9198	Helpers--Production Workers	450	531	81	18,0	605	14.88	NR	HS	
11-3051	Industrial Production Managers	333	390	57	17,1	232	51.77	A	B	
11-1021	General and Operations Managers	11.495	13.425	1.930	16,8	9.333	44.29	A	B	
17-3026	Industrial Engineering Technicians	105	122	17	16,2	92	23.21	PS	A	
51-9111	Packaging and Filling Machine Operators & Tenders	741	859	118	15,9	767	12.93	NR	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	901	1.043	142	15,8	876	20.65	PS	HS	
49-9071	Maintenance and Repair Workers, General	8.828	10.218	1.390	15,7	7.943	18.24	PS	HS	
47-2211	Sheet Metal Workers	242	279	37	15,3	224	20.03	PS	HS	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2.337	2.685	348	14,9	1.966	28.66	PS	HS	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	344	394	50	14,5	352	18.19	HS	HS	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	1.723	1.965	242	14,0	1.566	36.21	PS	B	
49-9041	Industrial Machinery Mechanics	640	727	87	13,6	523	22.01	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	1.419	1.607	188	13,2	1.255	29.20	PS	HS	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	5.730	6.391	661	11,5	5.011	29.21	PS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	207	229	22	10,6	173	13.97	PS	HS	
17-3023	Electrical and Electronic Engineering Technicians	356	389	33	9,3	281	32.02	A	A	
51-6031	Sewing Machine Operators	202	218	16	7,9	186	15.58	NR	NR	

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U.S. Department of Labor, Bureau of Labor Statistics

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WORKFORCE DEVELOPMENT AREA 22 - BROWARD COUNTY

Occupation Estimates for the Manufacturing Industry*
Years 2021 - 2029

FDOE 2020-2021
Student Enrollment
Serving College(s)

		Employment					Education			Broward College
SOC Code	SOC Title	2021	2029	Growth	Percent Growth	Total Job Openings	2020 Median Hourly Wage (\$)*	FL**	BLS**	
Total Manufacturing Related Occupations		55.464	62.849							
49-3011	Aircraft Mechanics and Service Technicians	1.237	1.842	605	48,9	1.533	35.14	PS	PS	
17-3026	Industrial Engineering Technicians	181	219	38	21,0	171	28.92	PS	A	
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	504	601	97	19,2	549	19.00	HS	HS	
17-2112	Industrial Engineers	741	881	140	18,9	523	37.17	B	B	
49-9041	Industrial Machinery Mechanics	1.033	1.218	185	17,9	903	22.51	PS	HS	
49-9071	Maintenance and Repair Workers, General	10.364	11.944	1.580	15,2	9.255	17.50	PS	HS	
51-6031	Sewing Machine Operators	975	1.121	146	15,0	990	11.80	NR	NR	
11-1021	General and Operations Managers	14.767	16.967	2.200	14,9	11.626	48.86	A	B	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	2.495	2.832	337	13,5	2.053	30.04	PS	HS	
17-3023	Electrical and Electronic Engineering Technicians	403	453	50	12,4	334	27.44	A	A	
51-9111	Packaging and Filling Machine Operators & Tenders	2.365	2.641	276	11,7	2.306	14.35	NR	HS	
51-9198	Helpers--Production Workers	581	645	64	11,0	718	14.12	NR	HS	
51-4041	Machinists	795	880	85	10,7	701	22.00	PS	HS	
51-1011	First-Line Supervisors of Production and Operating Workers	2.199	2.424	225	10,2	1.854	28.25	PS	HS	
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	2.995	3.286	291	9,7	2.545	38.47	PS	B	
11-3051	Industrial Production Managers	510	553	43	8,4	300	53.93	A	B	
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	11.195	12.139	944	8,4	9.318	25.89	PS	HS	
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	124	134	10	8,1	135	16.04	HS	HS	
47-2211	Sheet Metal Workers	540	570	30	5,6	430	21.39	PS	HS	
51-4121	Welders, Cutters, Solderers, and Brazers	1.287	1.340	53	4,1	1.045	19.01	PS	HS	
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	143	133	-10	-7,0	86	13.55	PS	HS	
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	30	26	-4	-13,3	19	17.71	HS	HS	

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PS: postsecondary non-degree award

U.S. Department of Labor, Bureau of Labor Statistics

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PS: postsecondary non-degree award

SC: some college, no degree

WORKFORCE DEVELOPMENT AREA 23 - MIAMI-DADE AND MONROE COUNTIES										FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry* Years 2021 - 2029											
SOC Code	SOC Title	Employment					Education			The College of Florida Keys	Miami Dade College
		2021	2029	Growth	Percent Growth	Total Job Openings	2020 Median Hourly Wage (\$)*	FL**	BLS**		
Total Manufacturing Related Occupations		80.389	90.036							15	319
17-3026	Industrial Engineering Technicians	250	300	50	20,0	233	28.07	PS	A		
49-3011	Aircraft Mechanics and Service Technicians	2.988	3.561	573	19,2	2.546	32.56	PS	PS		
49-9041	Industrial Machinery Mechanics	1.830	2.149	319	17,4	1.587	20.50	PS	HS		
11-1021	General and Operations Managers	22.440	25.742	3.302	14,7	17.614	43.95	A	B		
49-9071	Maintenance and Repair Workers, General	15.347	17.484	2.137	13,9	13.433	17.04	PS	HS		
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	733	833	100	13,6	741	17.93	HS	HS		
17-2112	Industrial Engineers	772	874	102	13,2	491	37.64	B	B		
51-6031	Sewing Machine Operators	1.442	1.621	179	12,4	1.412	11.74	NR	NR		
17-3023	Electrical and Electronic Engineering Technicians	577	646	69	12,0	475	28.59	A	A		
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	3.701	4.125	424	11,5	2.946	29.63	PS	HS		
51-9111	Packaging and Filling Machine Operators & Tenders	2.738	3.017	279	10,2	2.614	11.37	NR	HS		
11-3051	Industrial Production Managers	843	928	85	10,1	513	46.65	A	B		
41-4011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	3.461	3.767	306	8,8	2.900	29.16	PS	B		
51-4041	Machinists	768	835	67	8,7	656	21.91	PS	HS		
51-1011	First-Line Supervisors of Production and Operating Workers	3.090	3.348	258	8,3	2.527	27.21	PS	HS		
51-4121	Welders, Cutters, Solderers, and Brazers	1.464	1.576	112	7,7	1.260	19.17	PS	HS		
51-9198	Helpers--Production Workers	1.001	1.077	76	7,6	1.185	12.62	NR	HS		
41-4012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	15.474	16.625	1.151	7,4	12.671	23.57	PS	HS		
47-2211	Sheet Metal Workers	772	813	41	5,3	611	19.28	PS	HS		
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	79	82	3	3,8	69	15.19	HS	HS		
51-4021	Extruding & Drawing Machine Setters, Operators, & Tenders, Metal & Plastic	109	113	4	3,7	96	15.37	HS	HS		
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	189	194	5	2,6	191	18.25	HS	HS		
51-4072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	321	326	5	1,6	229	13.90	PS	HS		

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NR: no formal educational credential required	M: master's degree
PS: postsecondary non-degree award	NR: no formal educational credential required
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WORKFORCE DEVELOPMENT AREA 24 - CHARLOTTE, COLLIER, GLADES, HENDRY, AND LEE COUNTIES											FDOE 2020-2021 Student Enrollment Serving College(s)	
Occupation Estimates for the Manufacturing Industry*												
Years 2021 - 2029												
SOC Code	código ok	SOC Title	Employment				Total Job Openings	2020 Median Hourly Wage (\$)*	Education		Vlook	Florida Sowthwestern State College
			2021	2029	Growth	Percent Growth			FL**	BLS**		
Total Manufacturing Related Occupations			27.790	31.589								503
49-3011	493011	Aircraft Mechanics and Service Technicians	247	343	96	38,9	274	31.26	PS	PS	yes	
51-4072	514072	Molding, Coremaking & Casting Machine Set., Oper. & Tend., Metal & Plastic	79	94	15	19,0	75	13.33	PS	HS	yes	
17-2112	172112	Industrial Engineers	395	469	74	18,7	278	40.34	B	B	yes	
51-9198	519198	Helpers--Production Workers	170	198	28	16,5	225	15.94	NR	HS	yes	
41-4011	414011	Sales Rep., Wholesale & Manufacturing, Technical & Scientific Products	730	845	115	15,8	680	30.10	PS	B	yes	
49-9071	499071	Maintenance and Repair Workers, General	6.577	7.578	1.001	15,2	5.871	18.50	PS	HS	yes	
11-1021	111021	General and Operations Managers	8.373	9.624	1.251	14,9	6.596	37.67	A	B	yes	
11-3051	113051	Industrial Production Managers	288	330	42	14,6	192	43.80	A	B	yes	
49-9041	499041	Industrial Machinery Mechanics	785	896	111	14,1	647	25.30	PS	HS	yes	
47-2211	472211	Sheet Metal Workers	738	840	102	13,8	670	18.77	PS	HS	yes	
49-1011	491011	First-Line Supervisors of Mechanics, Installers, and Repairers	2.134	2.394	260	12,2	1.719	27.42	PS	HS	yes	
51-9023	519023	Mixing and Blending Machine Setters, Operators, and Tenders	172	193	21	12,2	171	17.02	HS	HS	yes	
51-1011	511011	First-Line Supervisors of Production and Operating Workers	1.051	1.173	122	11,6	906	26.96	PS	HS	yes	
41-4012	414012	Sales Rep., Wholesale & Manufacturing, Except Tech. & Scientific Products	4.068	4.520	452	11,1	3.534	29.38	PS	HS	yes	
51-7042	517042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	70	77	7	10,0	78	14.97	HS	HS	yes	
51-4121	514121	Welders, Cutters, Solderers, and Brazers	720	784	64	8,9	632	21.12	PS	HS	yes	
51-9111	519111	Packaging and Filling Machine Operators & Tenders	262	277	15	5,7	234	11.23	NR	HS	yes	
17-3026	173026	Industrial Engineering Technicians	129	134	5	3,9	92	23.33	PS	A	yes	
51-4041	514041	Machinists	651	669	18	2,8	504	22.11	PS	HS	yes	
51-6031	516031	Sewing Machine Operators	151	151	0	0,0	121	12.67	NR	NR	yes	

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