

Florida Industry Profiles: Manufacturing Industry Cluster

Exploring Florida's Targeted Industries

Florida's geographic location ideally positions the state as a global hub for commerce. Florida's competitive costs, comprehensive infrastructure and a large, diverse talent pool have supported the expansion of a dynamic economy throughout the following six key areas: aviation and aerospace, life sciences, manufacturing, information technology, financial and professional services, and logistics and distribution—the subjects of this series of reports titled *Florida Industry Profiles*.

These Industry Profiles detail the benefits of targeted industries to Florida's employment, wage-earning levels within the industry, and how each industry is forecast to perform moving forward. In an increasingly competitive global market, Florida continues to position itself for future growth in key areas as evidenced in the following profile.

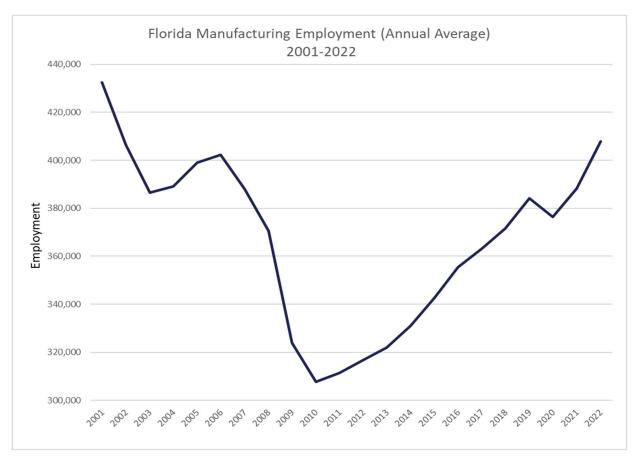
Overview

Florida manufacturers are critical to the state's economy. Many Florida manufacturing operations benefit from the presence of advanced research facilities at Florida's universities and colleges, military installations, and NASA.

In 2022, Florida manufacturing was 4.4 percent of the employment for all industries and is separated into durable goods manufacturing and nondurable goods manufacturing. Durable goods manufacturing accounted for 68.7 percent of 2022 manufacturing employment while nondurable goods manufacturing accounted for 31.3 percent.

Employment Trends in the Manufacturing Industry Cluster

The Manufacturing industry cluster is composed of ten durable goods and 11 nondurable goods subsectors. There were 24,129 durable and nondurable goods manufacturing establishments in 2022 that accounted for 407,819 jobs. Manufacturing employment was on a downward trend between 2001 and 2003 and again between 2006 and 2010. Manufacturing employment began growing from a low of 307,618 jobs in 2010 to 384,075 jobs in 2019 (a +24.9 percent increase) then saw a decrease (-2.0 percent) in 2020. Florida reached 407,819 manufacturing jobs (+19,650 jobs, +5.1 percent) in 2022.



Source: FloridaCommerce, Bureau of Workforce Statistics and Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The largest industry subsectors in the Manufacturing industry cluster in 2022 were: Transportation Equipment Manufacturing (53,934 jobs), Computer and Electronic Product Manufacturing (45,564 jobs), Fabricated Metal Product Manufacturing (43,678 jobs), Food Manufacturing (35,524 jobs), Miscellaneous Manufacturing (35,322 jobs), and Machinery Manufacturing (32,032 jobs). These six subsectors accounted for 60.3 percent of total manufacturing employment. Food Manufacturing is the only subsector of these six that manufactures nondurable goods.

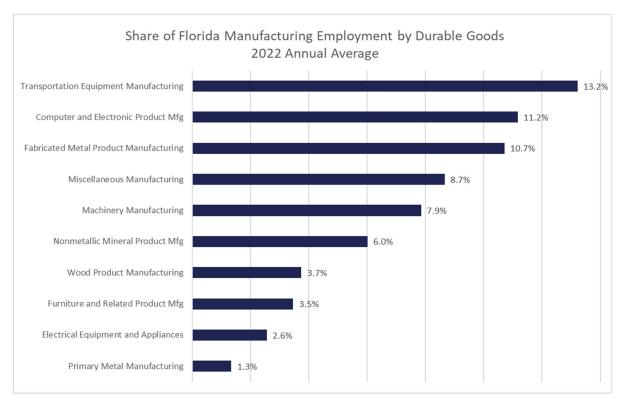
Durable Goods Manufacturing

Durable goods manufacturing includes the following industry subsectors:

- Wood Product Manufacturing (NAICS subsector 321),
- Nonmetallic Mineral Product Manufacturing (NAICS subsector 327),
- Primary Metal Manufacturing (NAICS subsector 331),
- Fabricated Metal Product Manufacturing (NAICS subsector 332),
- Machinery Manufacturing (NAICS subsector 333),
- Computer and Electronic Product Manufacturing (NAICS subsector 334),
- Electrical Equipment and Appliance Manufacturing (NAICS subsector 335),
- Transportation Equipment Manufacturing (NAICS subsector 336),

- Furniture and Related Product Manufacturing (NAICS subsector 337), and
- Miscellaneous Manufacturing (NAICS subsector 339).

Durable goods manufacturing had 15,564 establishments in 2022 that accounted for 280,283 jobs. Employment was up 13,804 jobs (+5.2 percent) over the year.



Source: FloridaCommerce, Bureau of Workforce Statistics and Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

All ten durable goods industries gained jobs over the year in 2022. Transportation Equipment Manufacturing (+3,496 jobs, +6.9 percent), followed by Miscellaneous Manufacturing (+1,761 jobs, +5.2 percent), Fabricated Metal Product Manufacturing (+1,606 jobs, +3.8 percent), Nonmetallic Mineral Product Manufacturing (+1,545 jobs, +6.7 percent), Computer and Electronic Product Manufacturing (+1,329, +3.0 percent), and Machinery Manufacturing (+1,253 jobs, +4.1 percent) gained the most jobs from 2021 to 2022.

Nondurable Goods Manufacturing

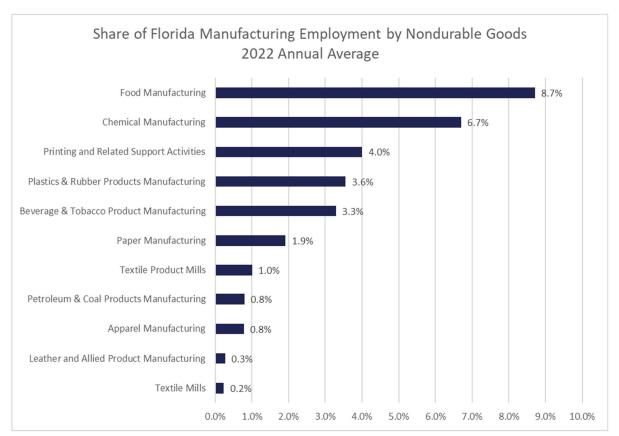
Nondurable goods manufacturing includes the following subsectors:

- Food Manufacturing (NAICS subsector 311),
- Beverage and Tobacco Product Manufacturing (NAICS subsector 312),
- Textile Mills (NAICS subsector 313),
- Textile Product Mills (NAICS subsector 314),
- Apparel Manufacturing (NAICS subsector 315),
- Leather and Allied Product Manufacturing (NAICS subsector 316),
- Paper Manufacturing (NAICS subsector 322),

- Printing and Related Support Activities (NAICS subsector 323),
- Petroleum and Coal Products Manufacturing (NAICS subsector 324),
- Chemical Manufacturing (NAICS subsector 325), and
- Plastics & Rubber Products Manufacturing (NAICS subsector 326).

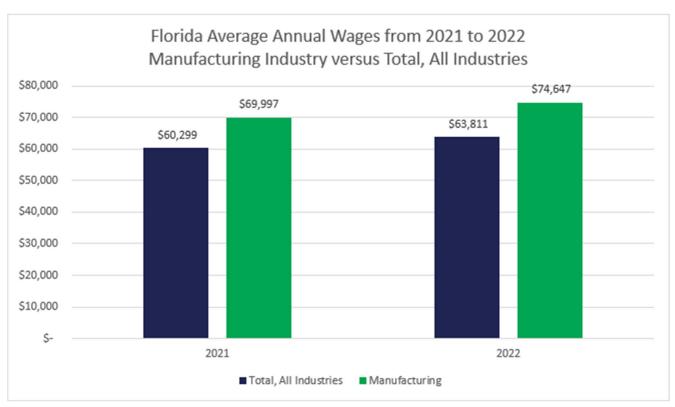
Nondurable goods manufacturing had 8,566 establishments in 2022 that accounted for 127,536 jobs. Employment was up (+5,846 jobs, +4.8 percent) over the year.

The largest industry subsectors in nondurable goods manufacturing in 2022 were: Food Manufacturing (35,524 jobs), Chemical Manufacturing (27,309 jobs), and Printing and Related Support Activities (16,338 jobs). These three subsectors accounted for 62.14 percent of nondurable goods manufacturing employment and 19.4 percent of total manufacturing employment.



Source: FloridaCommerce, Bureau of Workforce Statistics and Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

Nine of the eleven nondurable goods manufacturing subsectors gained jobs over the year in 2022. Chemical Manufacturing (+1,593 jobs, +6.2 percent), followed by Food Manufacturing (+1,494 jobs, +4.4 percent), Printing and Related Support Activities (+1,127 jobs, +7.4 percent), Beverage & Tobacco Product Manufacturing (+1,000 jobs, +8.0 percent), and Plastics & Rubber Products Manufacturing (+594 jobs, +4.3 percent) gained the most jobs from 2021 to 2022, while Paper Manufacturing (-665, -7.8 percent) and Textile Mills (-9 jobs, -1.0 percent) lost the jobs over the year.



Source: FloridaCommerce, Bureau of Workforce Statistics and Economic Research, Quarterly Census of Employment and Wages Program (QCEW).

The Manufacturing industry cluster's 2022 average annual wage increased more than the average wage for all industries over the year and grew at a faster rate. The 2022 average annual wage for the Manufacturing industry cluster was \$74,647, an increase of \$4,650 (+6.6 percent) from 2021. The average annual wage for all industries (\$63,811) grew by \$3,512 (+5.8 percent) over the year.

The 2022 average annual wage for workers in the Manufacturing industry cluster (\$74,647) exceeded the average annual wage for all industries (\$63,811) by \$10,835 (+17.0 percent). The wage gap has expanded slightly since 2021 when it was \$9,698 (+16.0 percent).

The Computer and Electronic Product Manufacturing subsector had an average annual wage of \$107,769 in 2022, the highest in manufacturing. Textile Product Mills had the lowest average annual wage in 2022 (\$47,879). Thirteen of the 21 manufacturing industries had a 2022 average annual wage greater than the average for all industries (\$63,811).

All Education and Training Levels

Top Occupations in the Manufacturing Industry Cluster For All Training Levels*											
Occupation Title	Employment 2022 2030		2022-2030 Change Total Percent		% of Industry Total	2022 Median Hourly	Training Requirement				
Occupation Title	2022	2030	Total	Percent	TOTAL	Wage	Requirement				
Total, All Manufacturing Industry Occupations	393,346	420,717	27,371	6.96							
First-Line Supervisors of Production and Operating Workers	14,461	15,791	1,330	9.20	3.68	\$29.04	High School Diploma or GED				
Packaging and Filling Machine Operators and Tenders	11,548	12,501	953	8.25	2.94	\$15.35	High School Diploma or GED				
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders	10,988	12,079	1,091	9.93	2.79	\$17.45	High School Diploma or GED				
Sales Representatives, Wholesale and Manufacturing, Except Technical and Sc	10,569	11,436	867	8.20	2.69	\$27.94	High School Diploma or GED				
Inspectors, Testers, Sorters, Samplers, and Weighers	10,385	9,741	-644	-6.20	2.64	\$20.01	High School Diploma or GED				
Laborers and Freight, Stock, and Material Movers, Hand	10,330	11,215	885	8.57	2.63	\$15.45	No formal education credential required				
Welders, Cutters, Solderers, and Brazers	8,086	9,032	946	11.70	2.06	\$22.13	High School Diploma or GED				
Heavy and Tractor-Trailer Truck Drivers	7,063	8,067	1,004	14.21	1.80	\$22.44	Postsecondary non-degree award				
Machinists	7,057	7,902	845	11.97	1.79	\$22.66	High School Diploma or GED				
Industrial Engineers	6,715	8,020	1,305	19.43	1.71	\$46.71	Bachelor's Degree				
Maintenance and Repair Workers, General	5,953	6,450	497	8.35	1.51	\$18.32	High School Diploma or GED				
Industrial Machinery Mechanics	5,923	7,241	1,318	22.25	1.51	\$25.49	High School Diploma or GED				
Shipping, Receiving, and Inventory Clerks	5,762	5,731	-31	-0.54	1.46	\$17.28	High School Diploma or GED				
Printing Press Operators	5,228	5,152	-76	-1.45	1.33	\$17.38	High School Diploma or GED				
Industrial Truck and Tractor Operators	4,174	4,578	404	9.68	1.06	\$18.15	No formal education credential required				

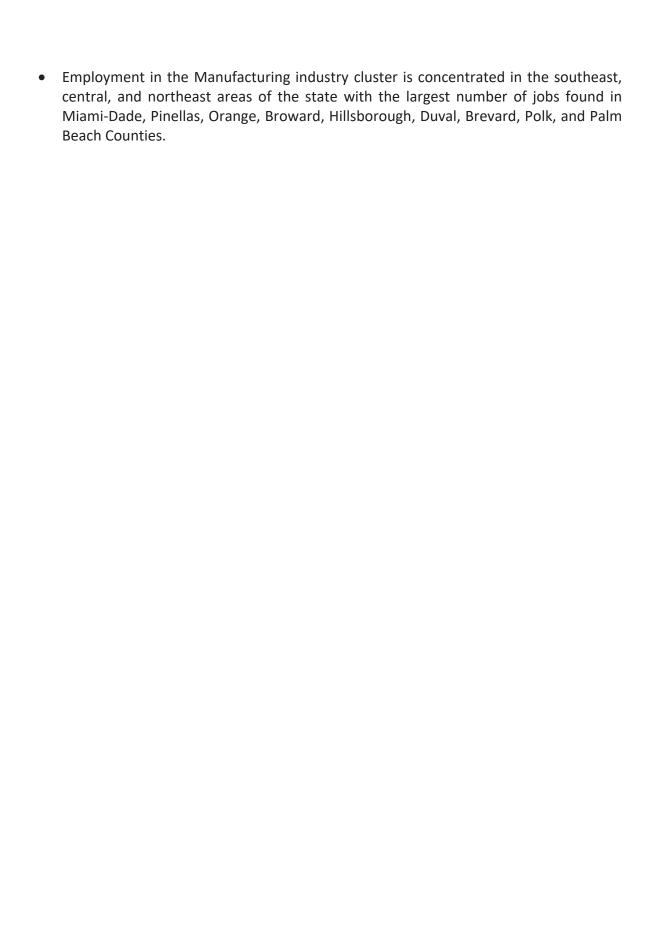
- The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Manufacturing Industry, the occupations not included for 2022 were: General and Operations Managers (7,480 jobs); Office Clerks, General (7,391 jobs); Software Developers and Software Quality Assurance Analysts and Testers (5.588 jobs); and Customer Service Representatives (5,051 jobs).
 - In 2022, the top 15 occupations (by employment) in the Manufacturing industry cluster made up 31.6 percent of total employment in manufacturing.
 - The largest occupation was First-Line Supervisors/Managers of Production, which has a median hourly wage of \$29.04.
 - Median hourly wages among the 15 largest occupations range from a high of \$46.71 per hour for Industrial Engineers to a low of \$15.35 per hour for Packaging and Filling Machine Operators and Tenders.
 - Eight out of the 15 largest employment occupations have a median wage greater than \$20.00 per hour.
 - Twelve of the 15 largest occupations are projected to gain jobs through 2030.
 - First-Line Supervisors of Production and Operating Workers (+1,330 jobs, +9.20 percent) is projected to gain the most jobs from 2022 to 2030, followed by Industrial Machinery Mechanics (+1,318 jobs, +22.25 percent), Industrial Engineers (+1,305 jobs, +19.43 percent), Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers (+1,091 jobs, +9.93 percent), and Heavy and Tractor-Trailer Truck Drivers (+1,004 jobs, +14.21 percent). Inspectors, Testers, Sorters, Samplers, and Weighers (-644 jobs, -6.20 percent) is projected to lose the most jobs from 2022 to 2030.
 - One of the top 15 manufacturing occupations requires training beyond high school.

Higher wages are found in occupations with greater training requirements.

Bachelor's Degree or Higher

Top Occupations in the Manufacturing Industry Cluster That Require a Bachelor's Degree or Higher**											
		Employment		2022-2030 Change		2022 Median Hourly	Training				
Occupation Title	2022	2030	Total	Percent	Total	Wage	Requirement				
Total, All Manufacturing Industry Occupations	78,363	87,717	9,354	11.94							
Industrial Engineers	6,715	8,020	1,305	19.43	1.71	\$46.71	Bachelor's Degree				
Industrial Production Managers	4,018	4,408	390	9.71	1.02	\$49.77	Bachelor's Degree				
Buyers and Purchasing Agents	3,516	3,563	47	1.34	0.89	\$30.01	Bachelor's Degree				
Mechanical Engineers	3,164	3,575	411	12.99	0.80	\$41.85	Bachelor's Degree				
Graphic Designers	2,317	2,421	104	4.49	0.59	\$24.58	Bachelor's Degree				
Electrical Engineers	2,264	2,545	281	12.41	0.58	\$47.01	Bachelor's Degree				
Computer Systems Analysts	2,070	2,306	236	11.40	0.53	\$45.58	Bachelor's Degree				
Engineers, All Other	2,055	2,341	286	13.92	0.52	\$44.51	Bachelor's Degree				
Architectural and Engineering Managers	1,948	2,193	245	12.58	0.50	\$71.13	Bachelor's Degree				
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific	1,826	1,981	155	8.49	0.46	\$47.52	Bachelor's Degree				
Market Research Analysts and Marketing Specialists	1,714	2,025	311	18.14	0.44	\$30.13	Bachelor's Degree				
Human Resources Specialists	1,510	1,639	129	8.54	0.38	\$28.95	Bachelor's Degree				
Electronics Engineers, Except Computer	1,428	1,647	219	15.34	0.36	\$49.11	Bachelor's Degree				
Sales Managers	1,329	1,453	124	9.33	0.34	\$59.94	Bachelor's Degree				
Logisticians	1,221	1,340	119	9.75	0.31	\$30.03	Bachelor's Degree				

- The Top 15 table reflects the occupations synonymous with the particular industry and best represents the required set of skills. Though still counted in the total employment of the Manufacturing Industry, the occupations not included for 2022 were: General and Operations Managers (7,480 jobs); Software Developers and Software Quality Assurance Analysts and Testers (5,588 jobs); Project Management Specialists and Business Operations Specialists, All Other (3,937 jobs); and Accountants and Auditors (2,480 jobs).
 - Approximately 9.4 percent of employment in the Manufacturing industry cluster is concentrated in the top 15 occupations that require at least a bachelor's degree.
 - The largest occupation (by employment) in 2022 that requires at least a bachelor's degree was Industrial Engineers, which has a median hourly wage of \$46.71.
 - Among the top 15 occupations, median hourly wages for occupations that require at least a bachelor's degree ranged from a high of \$71.13 for Architectural and Engineering Managers to a low of \$24.58 for Graphic Designers.
 - All of the top 15 occupations that require at least a bachelor's degree have a median wage greater than \$20.00 per hour.
 - All of the 15 top occupations that require at least a bachelor's degree are projected to gain jobs through 2030.
 - Industrial Engineers (+1,305 jobs, +19.43 percent) is projected to gain the most jobs of the top 15 occupations that require at least a bachelor's degree, followed by Mechanical Engineers (+411 jobs, +12.99 percent), and Industrial Production Managers (+390 jobs, +9.71 percent).



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