

Florida **Biotechnology** Industry

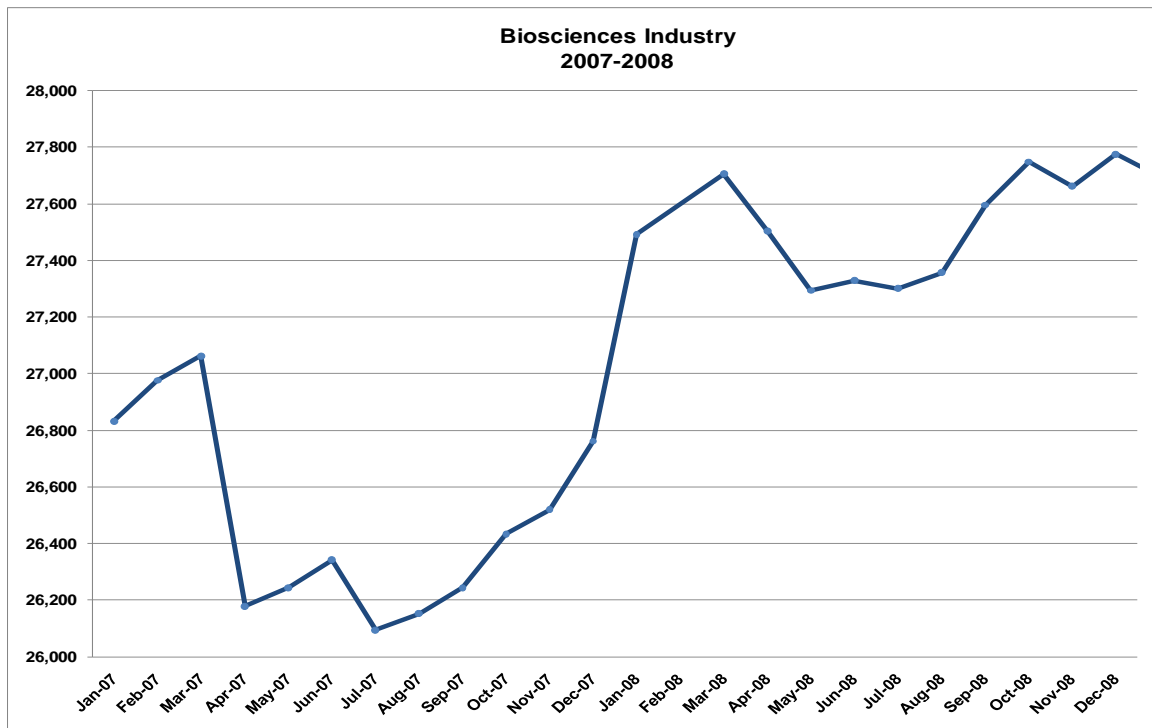


Florida Biosciences Industry

Florida is home to an expanding number of world-renowned research institutes, making it the epicenter of some of the most exciting research and promising discoveries. Florida has a growing biomedical cluster that supports one of the country's largest medical device sectors. According to the FDA, Florida ranks second in the United States for the number of FDA-registered medical device establishments.

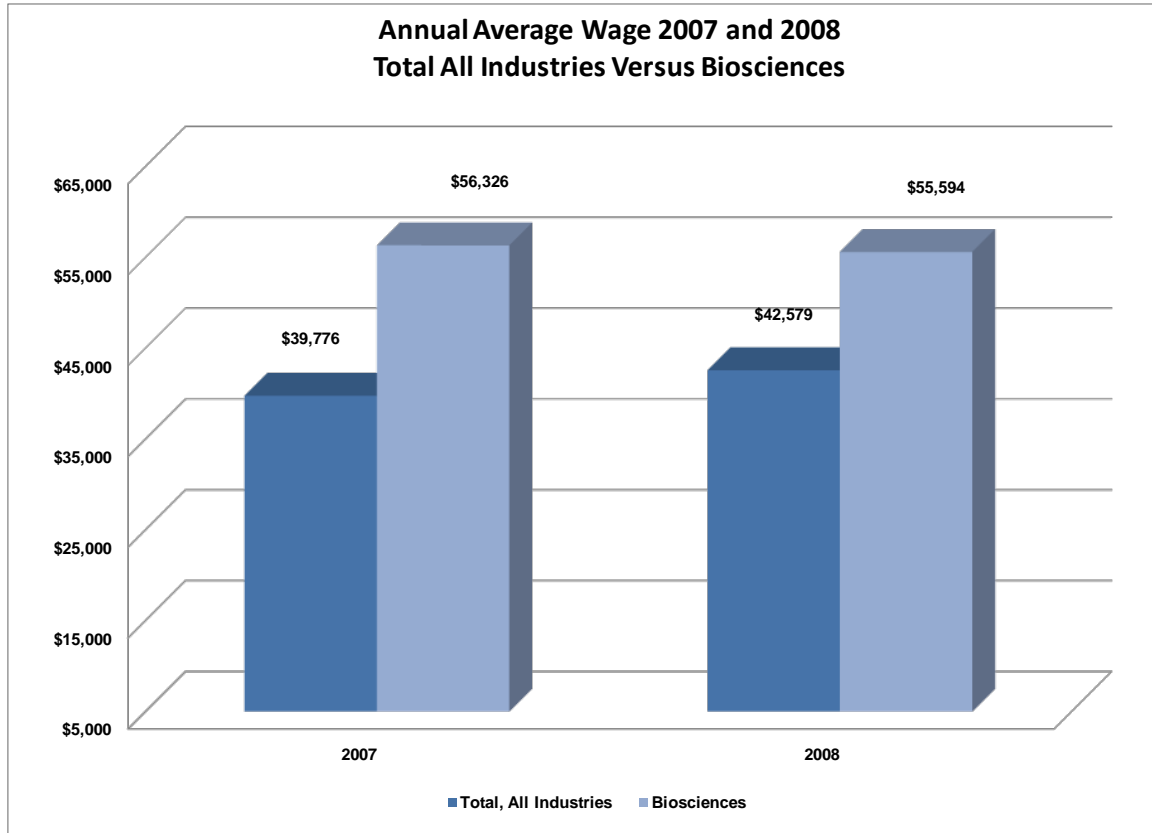
The biosciences industry includes the following sectors: medicinal and botanical manufacturing, pharmaceutical preparation manufacturing, in-vitro diagnostic substance manufacturing, other biological product manufacturing, electromedical and electrotherapeutic apparatus manufacturing, analytical laboratory instrument manufacturing, irradiation apparatus manufacturing; surgical and medical instrument manufacturing, surgical appliance and supplies manufacturing, and ophthalmic goods manufacturing. Research and development in biotechnology was added to the 2007 definition of the biosciences industry.

- The biosciences industry sector had 799 establishments in 2008 with employment of 27,532. The largest industries in biosciences in 2008 were surgical and medical instrument manufacturing (7,906 jobs), surgical appliance and supplies manufacturing (5,100 jobs), and pharmaceutical preparation manufacturing (4,904 jobs). These three industries made up 65.05 percent of the biosciences employment.
- Research and development in biotechnology gained the most jobs (+444 jobs, +60.28 percent) over the year. Electromedical and electrotherapeutic apparatus manufacturing lost the most jobs (-362 jobs, -9.38 percent) over the year. In total, the bioscience industry gained 1,013 jobs (+3.79 percent) over the year.



Source: Florida Agency for Workforce Innovation, Labor Market Statistics Center, Quarterly Census of Employment and Wages program (QCEW), prepared May 2010.

- The 2008 annual average wage for workers in the biosciences industry was \$55,594, exceeding the state's total annual average wage of \$42,579 by 23.4 percent. Ophthalmic goods manufacturing had an annual average wage of \$68,071, the highest in biosciences and almost 37.4 percent higher than the state wage.



Source: Florida Agency for Workforce Innovation, Labor Market Statistics Center, Quarterly Census of Employment and Wages program (QCEW), prepared May 2010.

- Although the biosciences industry in Florida includes disciplines as diverse as basic biomedical science, drug discovery, biomedical marine research, neurological disease research as well as the manufacturing of pharmaceutical and medical instruments, ten of the fifteen largest biosciences occupations are production-related.
- The 15 largest biosciences occupations comprise about 47 percent of the total employment in this industry.

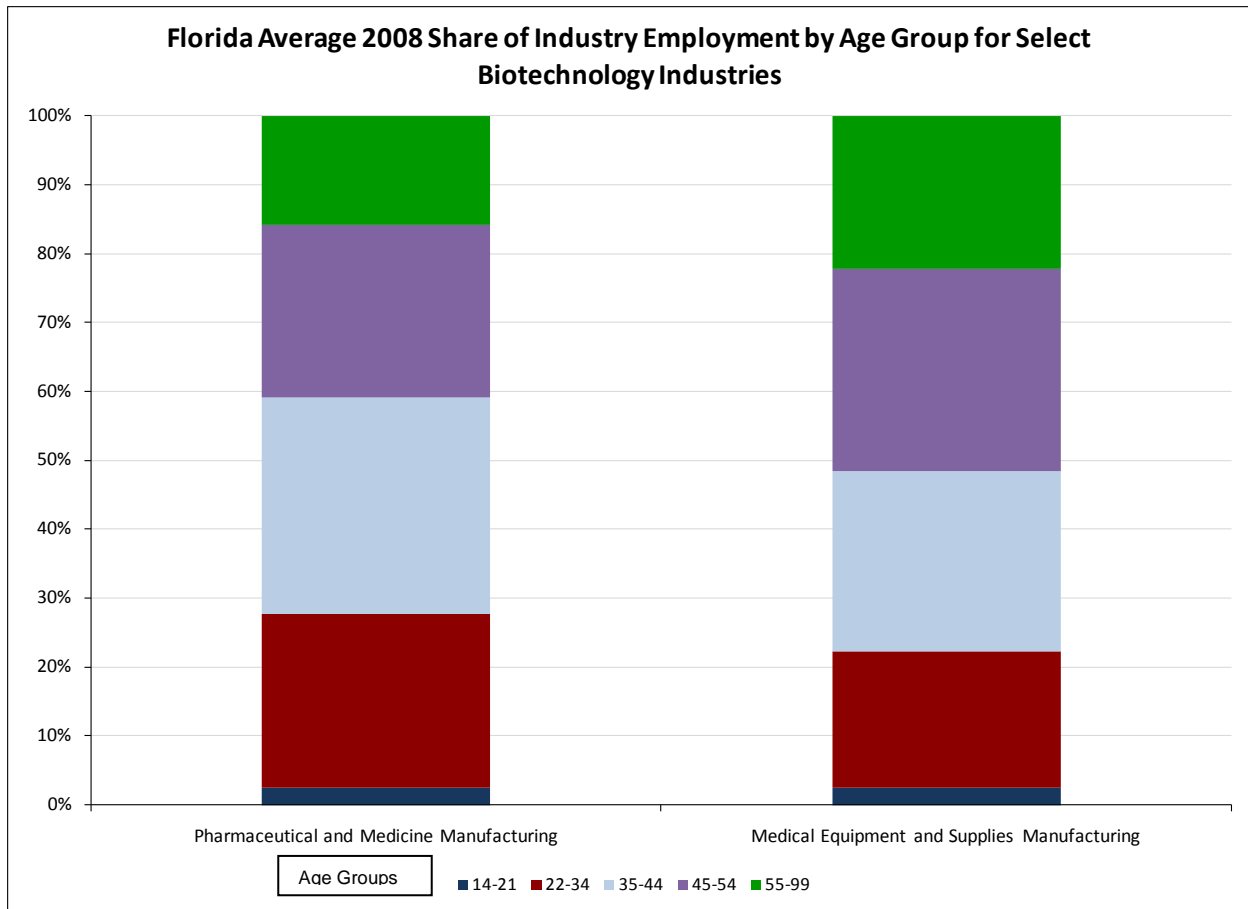
Biosciences Industry

Florida Statewide

Occupation Title	Employment		Annual Change		% of Industry	2009 Average Wage	Training Requirement
	2009	2017	Total	Percent	Total		
Team Assemblers	1,555	1,766	26	1.69	6.04	12.05	High School
Extruding & Drawing Machine Setters & Operators; M&P	1,524	1,729	26	1.68	5.92	14.00	High School
Ophthalmic Laboratory Technicians	1,240	1,406	21	1.68	4.81	13.60	Postsecondary Vocational
Inspectors, Testers, Sorters, Samplers, and Weighers	962	1,082	15	1.56	3.74	15.46	High School
First-Line Superv. of Production and Operating Workers	867	1,017	19	2.16	3.37	26.26	Postsecondary Vocational
Packaging and Filling Machine Operators and Tenders	769	936	21	2.72	2.99	12.32	Less Than High School
Machinists	765	902	17	2.24	2.97	17.19	Postsecondary Vocational
Sales Representatives, Wholesale & Mfg. Tech. & Sci. Products	741	921	23	3.04	2.88	34.59	Postsecondary Vocational
Industrial Engineers	728	988	33	4.47	2.83	32.76	Bachelor's Degree
Medical Appliance Technicians	596	707	14	2.32	2.32	17.04	Postsecondary Vocational
Office Clerks, General	508	582	9	1.82	1.97	12.11	High School
Customer Service Representatives	502	624	15	3.04	1.95	14.36	Postsecondary Vocational
Mixing and Blending Machine Setters, and Operators	454	604	19	4.14	1.76	14.16	High School
Laborers and Freight, Stock, and Material Movers, Hand	433	473	5	1.15	1.68	11.49	Less Than High School
Electrical and Electronic Equipment Assemblers	409	389	-3	-0.62	1.59	13.49	Postsecondary Vocational

Source: Florida Agency for Workforce Innovation, Labor Market Statistics Center, Long Term Projections program, forecast to 2017, prepared May 2010. Projections to the year 2017 assume economic recovery.

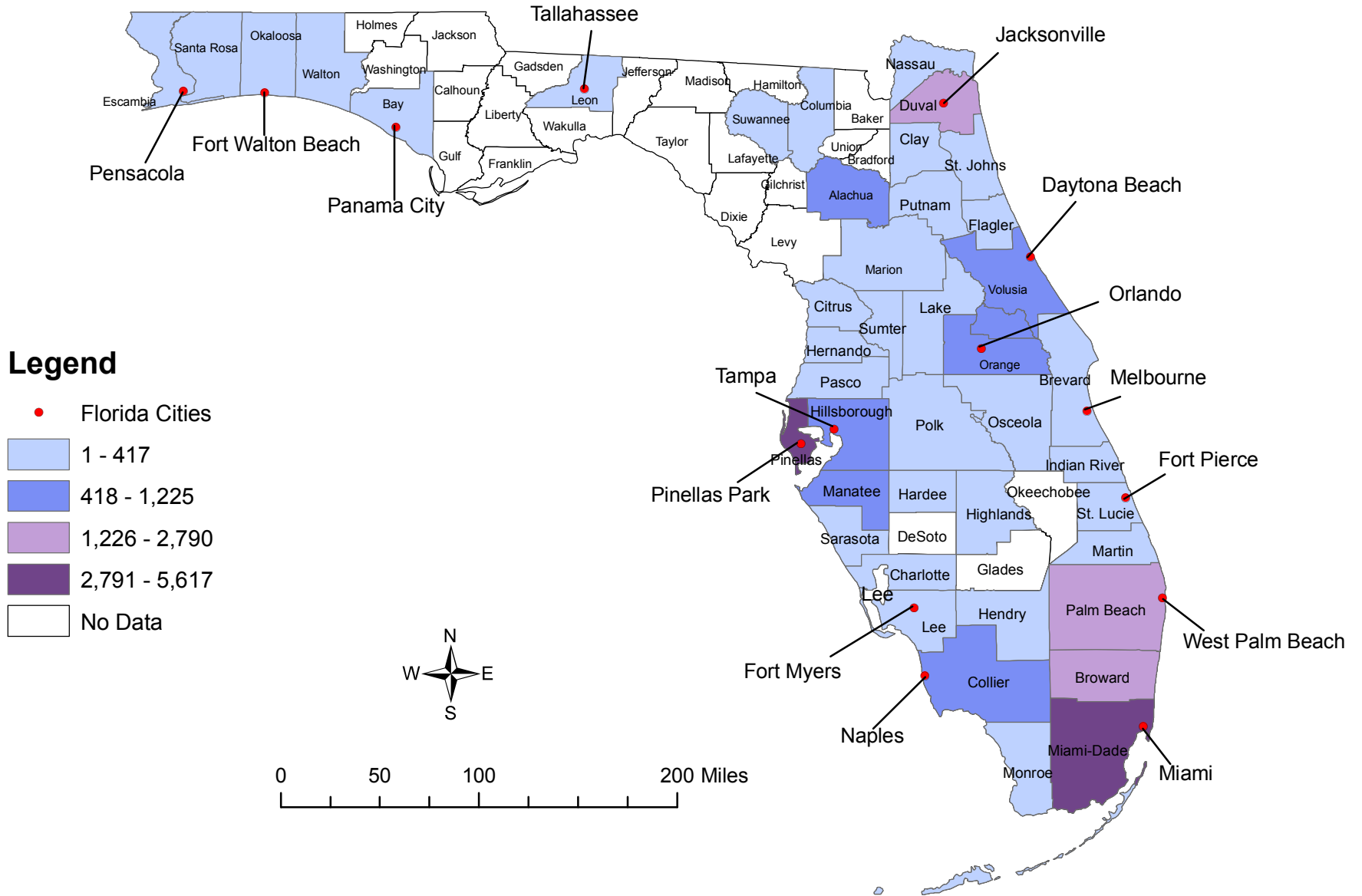
- Team assembler is the largest occupation within the biosciences industry, with an average wage of \$25,064 annually or \$12.05 per hour.
- Among the 15 largest occupations, hourly wages ranged from a high of \$34.59 for sales representatives of wholesale and manufacturing, technical & scientific products to a low of \$11.49 for laborers and freight, stock, and material movers.
- Five of the fifteen largest occupations in this industry cluster have an average wage greater than \$17.00 per hour.
- Of the fifteen largest occupations in the bioscience industry, only electrical and electronic equipment assemblers showed negative annual growth, however it stayed virtually unchanged
- Industrial engineers shows the highest annual net gain (+33 jobs) and the highest annual growth rate (+4.47 percent) for the next eight years.
- Higher wages are found in occupations with greater training requirements. Eight of the top fifteen occupations in the biosciences industry require some type of postsecondary training.



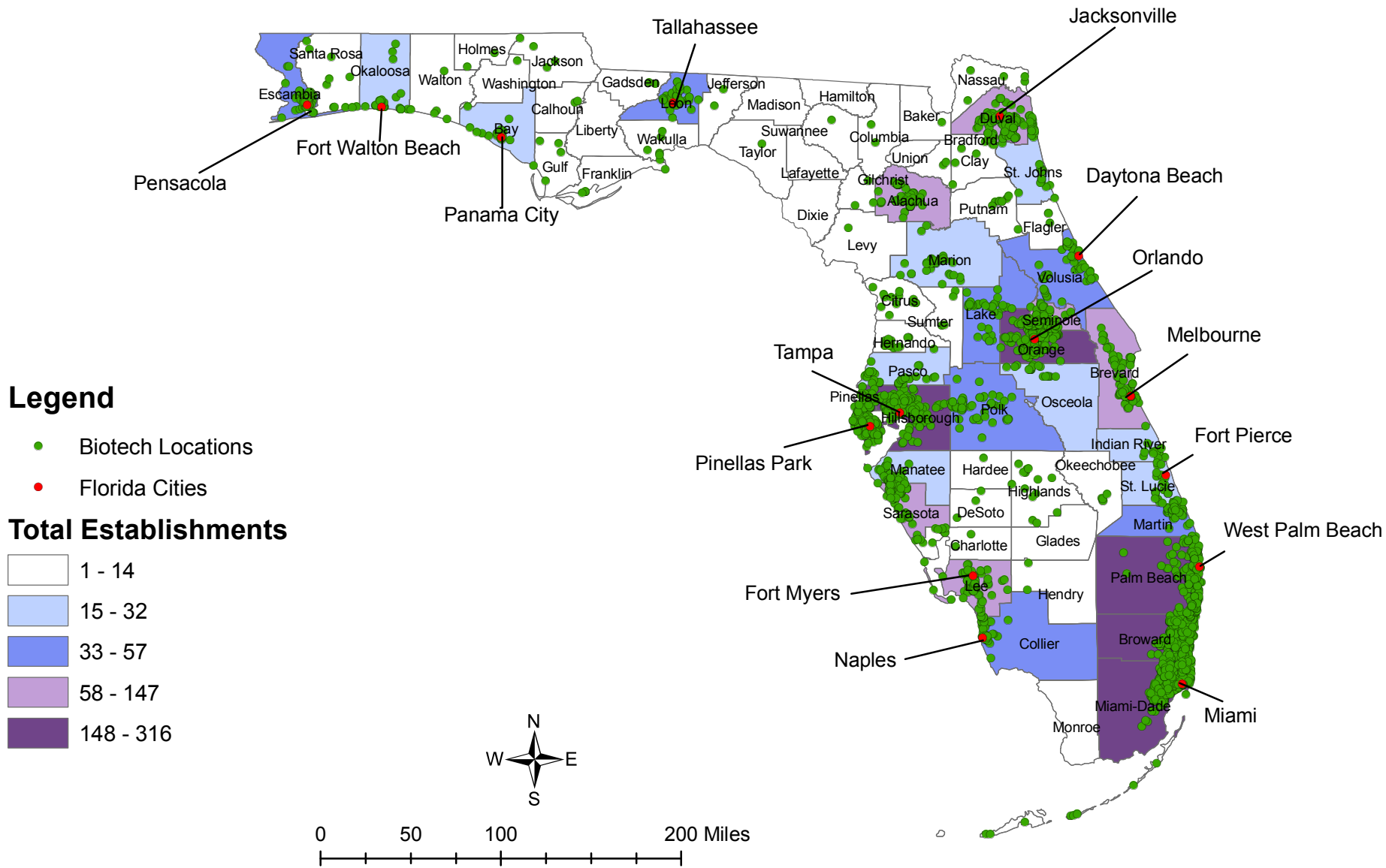
Source: U.S. Census Bureau, Local Employment Dynamics program (LED).
 Prepared by: Florida Agency for Workforce Innovation, Labor Market Statistics Center, May 2010.

- Pharmaceutical and medicine manufacturing had greater shares of workers in the age ranges of 22-34 years (25.1 percent) and 35-44 years (31.4 percent).
- Medical equipment and supplies manufacturing had higher shares of older workers both in the 45-54 years (29.4 percent) and the 55-99 years (22.2 percent) age groups.
- Both pharmaceutical and medicine manufacturing (2.5 percent), and medical equipment and supplies manufacturing (2.4 percent) had very low levels of younger workers 14-21 years old.
- Employment in the biosciences industry is concentrated in the southeast area of Florida, in Broward, Miami-Dade and Palm Beach counties as well as on the gulf coast in the Pinellas County area.

Biotech Employment



Concentration of Biotech Establishments by Location



Source: InfoUSA Inc., Employer Database, 2010-2nd Edition

Prepared by: Florida Agency for Workforce Innovation, Labor Market Statistics Center, April 2010