

**Governor Chris Christie  
Lt. Governor Kim Guadagno**

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# **New Jersey's Advanced Manufacturing Workforce**



**The Division of Labor Market & Demographic Research  
New Jersey Department of Labor and Workforce Development  
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# What is Advanced Manufacturing?

- Businesses in this cluster make use of high-tech processes in their manufacturing plants
- High-tech processes include installing intelligent production systems such as advanced robotics



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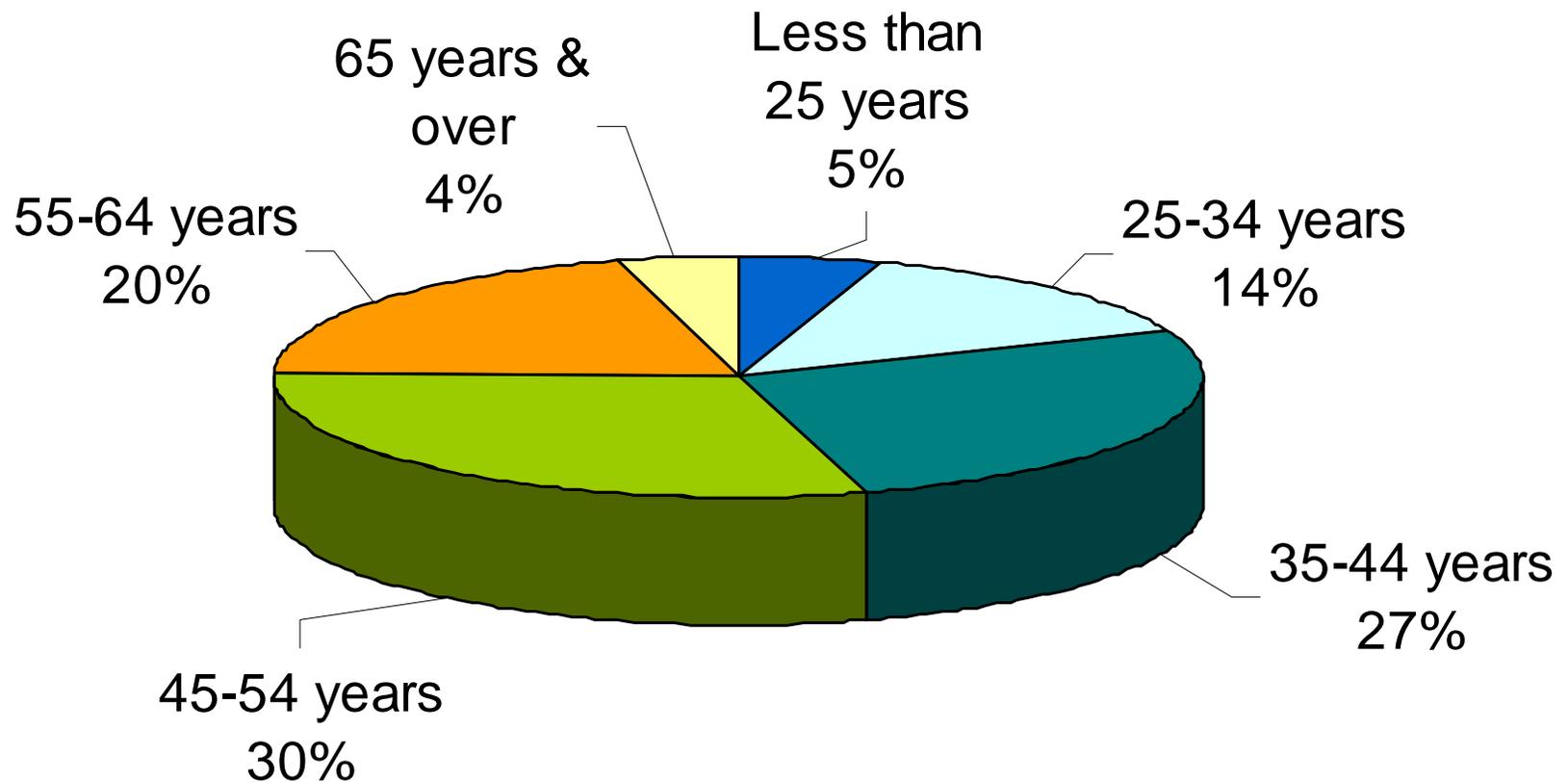
# Advanced Manufacturing Performance In New Jersey

- Analysis shows that Advanced Manufacturing in New Jersey is competitive compared to the nation as a whole
- There are approximately 1,000 Advanced Manufacturing establishments in New Jersey



# Experience at All Levels

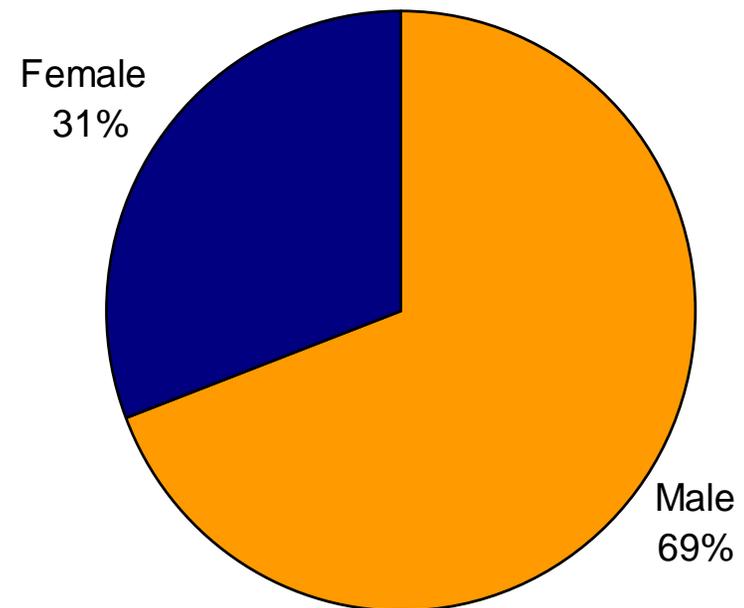
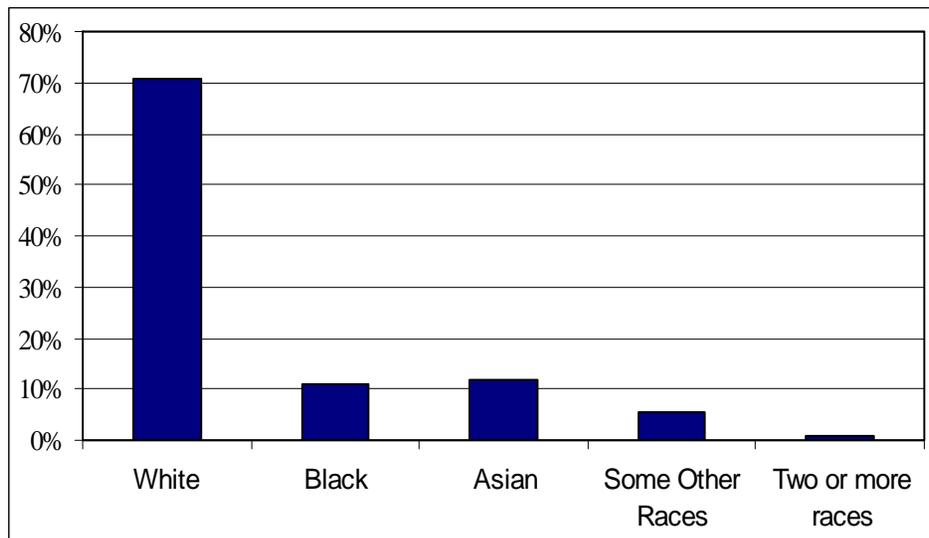
## Advanced Manufacturing workers by age



Source: 2008 American Community Survey Public Use Microdata



## Diversity: Race and Gender in Advanced Manufacturing

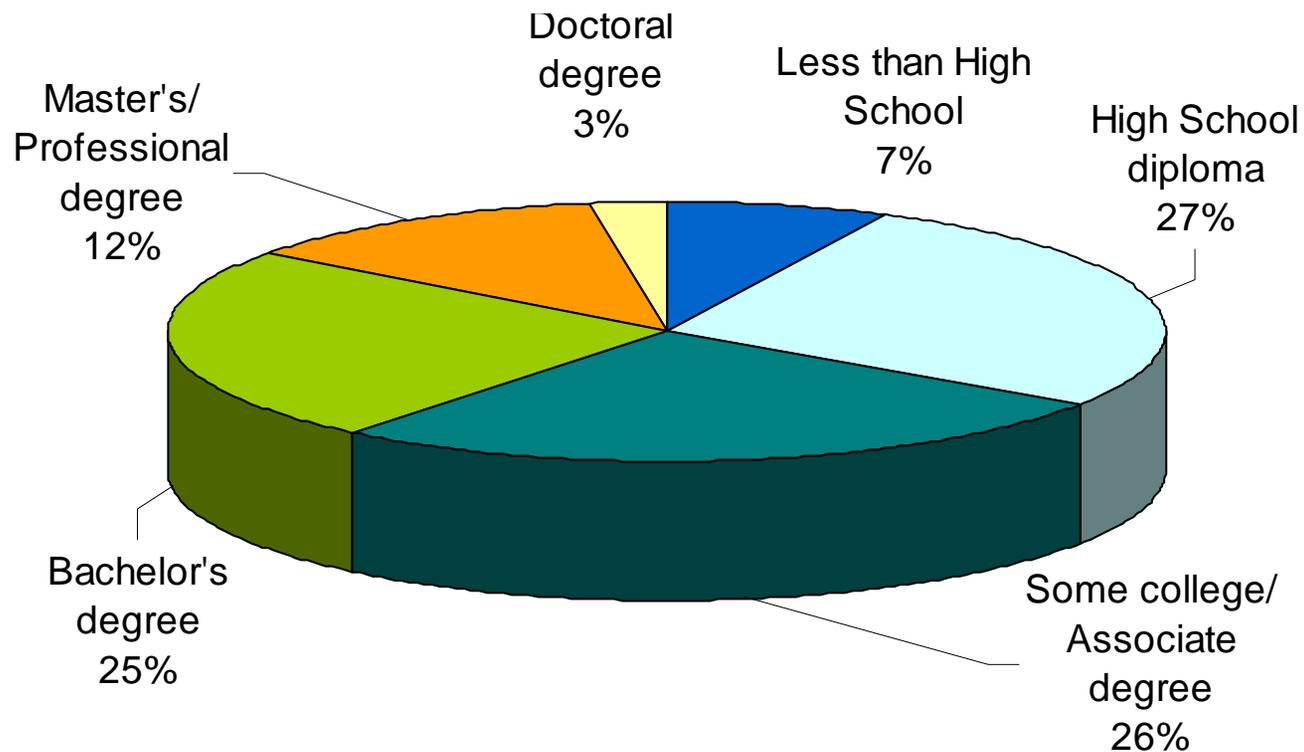


- 19% of Advanced Manufacturing workers are of Hispanic origin

*Source: 2008 American Community Survey Public Use Microdata*



# Education Levels of Advanced Manufacturing Workers

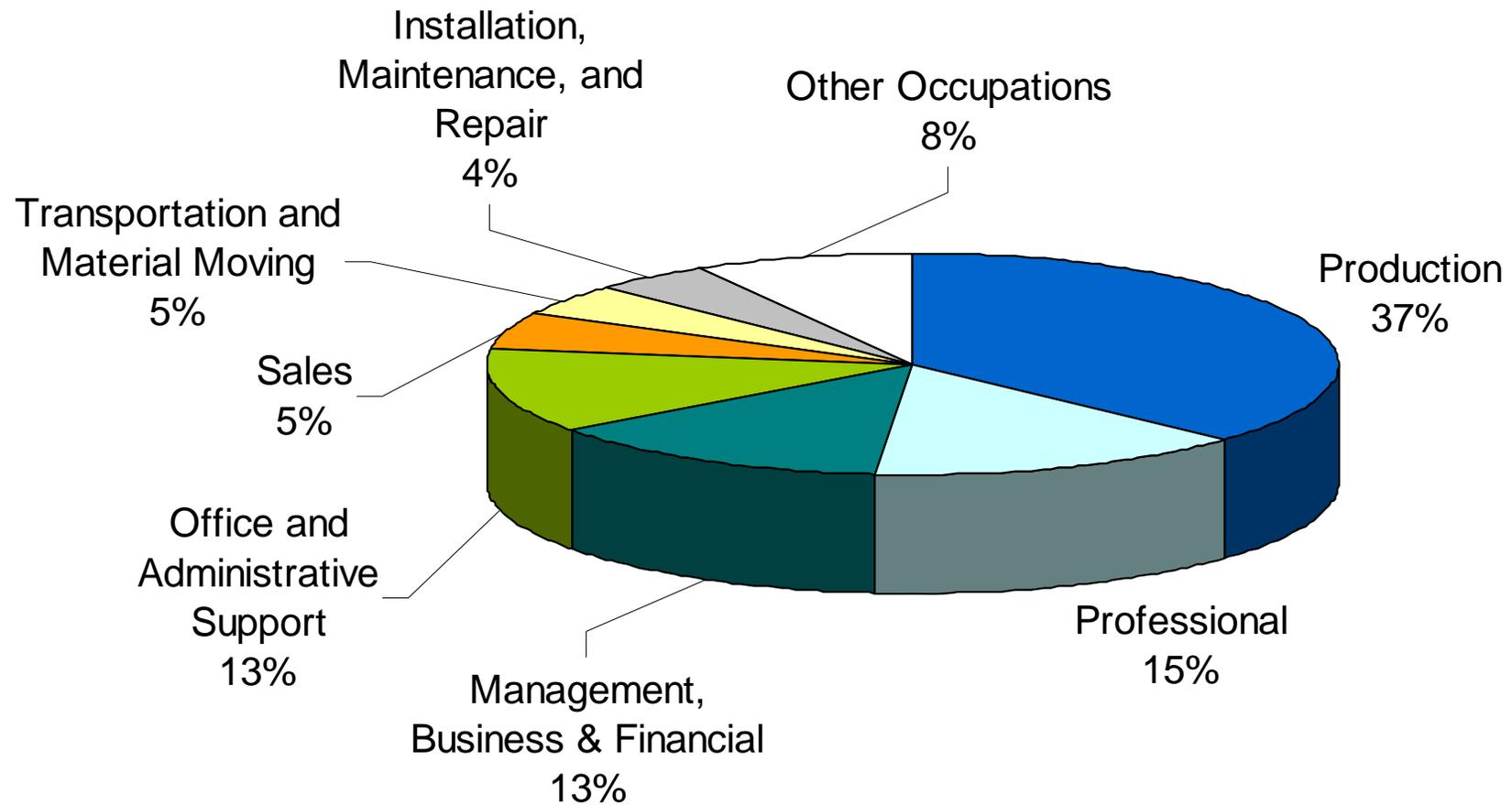


**Close to 40% of Advanced Manufacturing workers have at least a Bachelor's degree.**

*Source: 2008 American Community Survey Public Use Microdata*



# Occupational Distribution of Advanced Manufacturing Workers



Source: LWD, OES Program, 2009



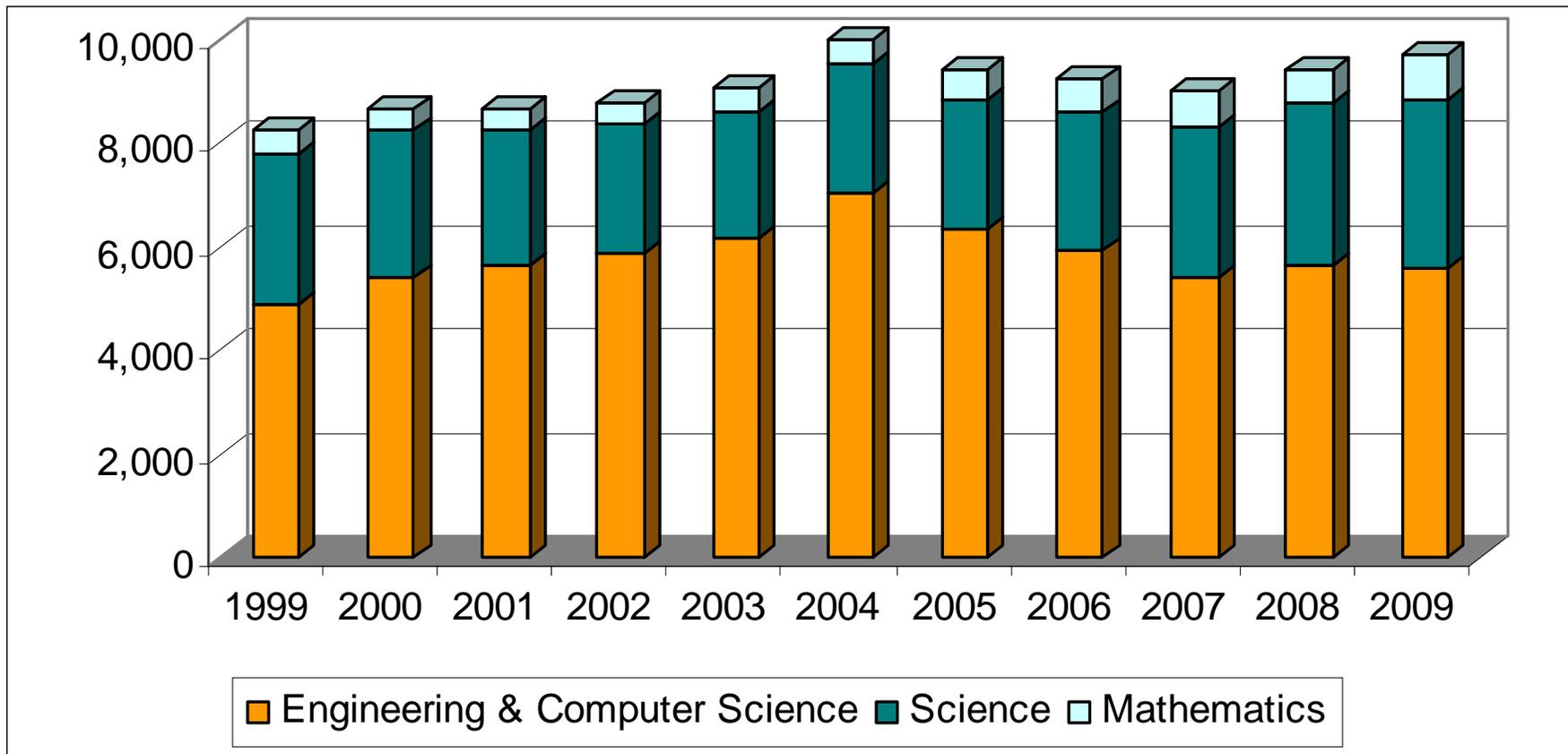
# Staffing Pattern

Occupation	Employment	Percent of Total	Education / Training
Packaging and Filling Machine Operators and Tenders	2,350	4.4%	Short-term on-the-job training
Mixing and Blending Machine Setters, Operators, and Tenders	2,100	4.0%	Moderate-term on-the-job training
First-Line Supervisors/Managers of Production and Operating Workers	1,850	3.5%	Work experience in a related occupation
Electrical and Electronic Equipment Assemblers	1,350	2.5%	Short-term on-the-job training
Sales Reps., Wholesale & Manufacturing, Exc. Technical & Scientific Products	1,150	2.2%	Work experience in a related occupation
Team Assemblers	1,150	2.2%	Moderate-term on-the-job training
Shipping, Receiving, and Traffic Clerks	1,000	1.9%	Short-term on-the-job training
Industrial Machinery Mechanics	950	1.8%	Long-term on-the-job training
Chemists	900	1.7%	Bachelor's degree
Industrial Production Managers	850	1.6%	Work experience in a related occupation
Mechanical Engineers	850	1.6%	Bachelor's degree
Inspectors, Testers, Sorters, Samplers, and Weighers	850	1.6%	Moderate-term on-the-job training
Electrical Engineers	800	1.5%	Bachelor's degree
Chemical Equipment Operators and Tenders	800	1.5%	Moderate-term on-the-job training
General and Operations Managers	750	1.4%	Bachelor's or higher degree, plus work experience
Chemical Technicians	750	1.4%	Associate degree
Chemical Plant and System Operators	750	1.4%	Long-term on-the-job training
Laborers and Freight, Stock, and Material Movers, Hand	750	1.4%	Short-term on-the-job training
Industrial Engineers	700	1.3%	Bachelor's degree
Bookkeeping, Accounting, and Auditing Clerks	650	1.2%	Moderate-term on-the-job training
<b>Total selected occupations</b>	<b>21,300</b>	<b>40.2%</b>	
<b>All other</b>	<b>31,700</b>	<b>59.8%</b>	

Source: LWD, OES Program, 2009



# Education for Advanced Manufacturing in New Jersey, 1999-2009

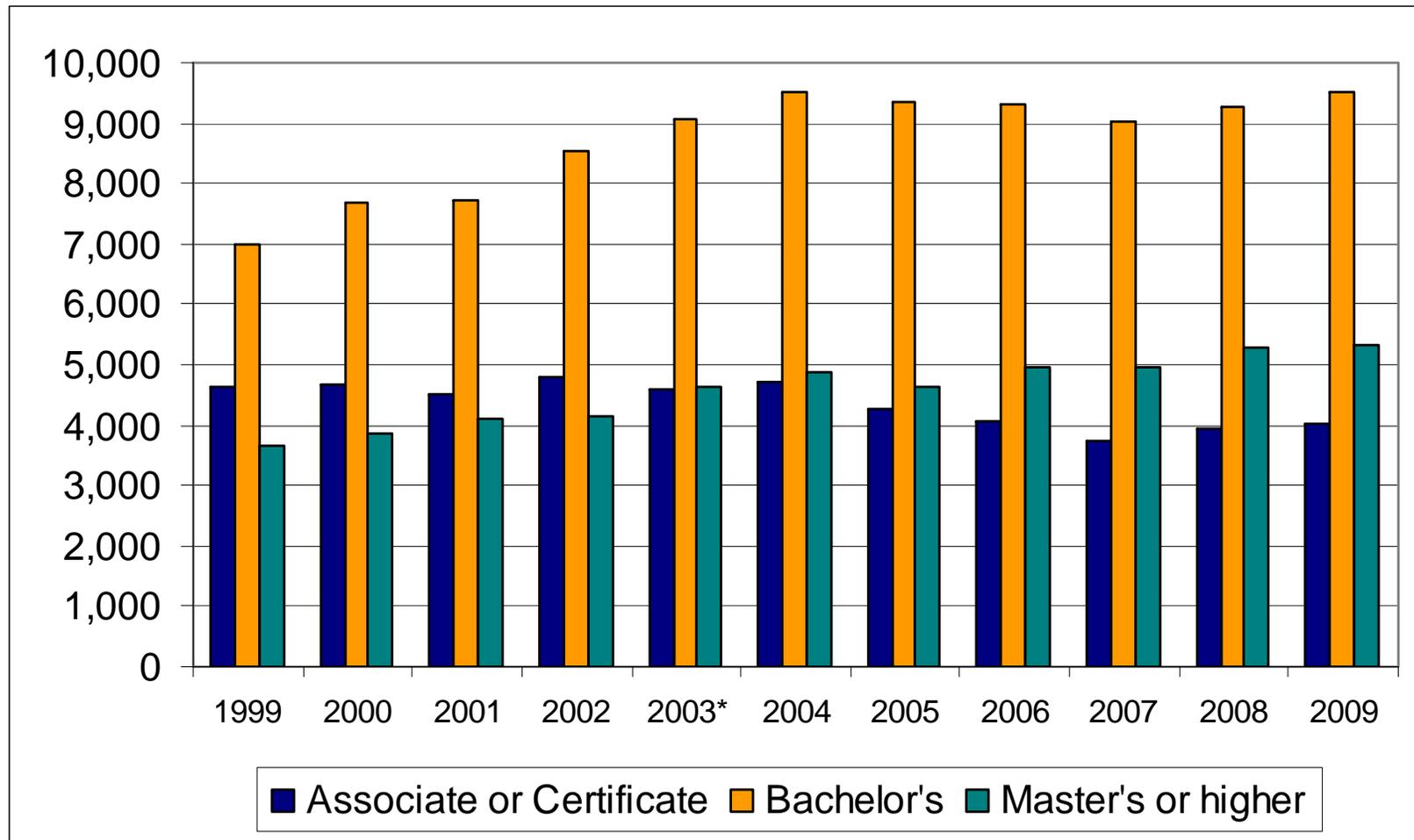


Note: Classification of Program codes changed in 2003; data may not be comparable for some programs

Source: New Jersey Commission on Higher Education, Integrated Postsecondary Data System (IPEDS)



# Types of Degrees Awarded

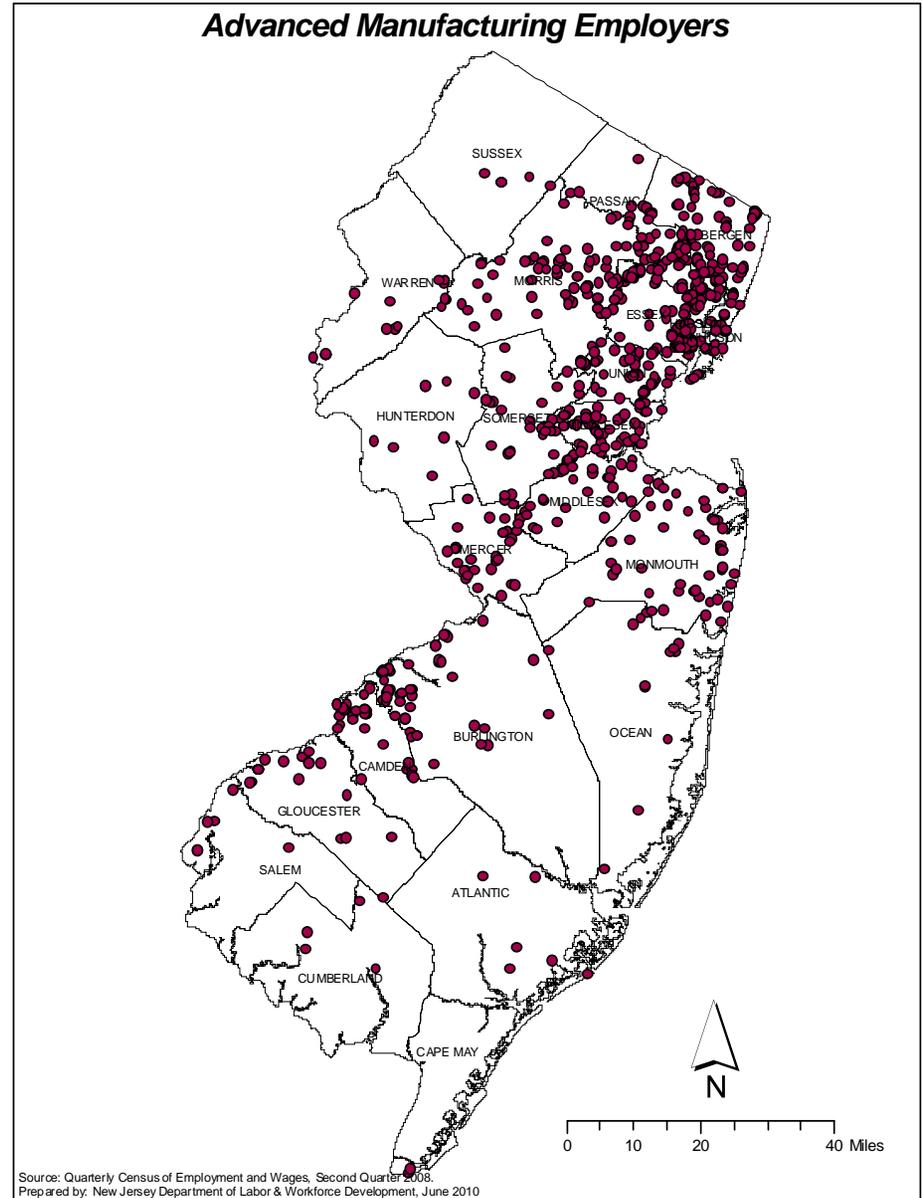


*Note: Classification of Program codes changed in 2003; data may not be comparable for some programs*

**Source: New Jersey Commission on Higher Education, Integrated Postsecondary Data System (IPEDS)**



# Advanced Manufacturing Sites in New Jersey





# Labor Shed: Manufacturing

The high concentration of red and orange colors in the map indicates a high density of workers in the Manufacturing sector

*Manufacturing  
Labor Shed*

