

New Jersey's **TECHNOLOGY Industry Cluster**

Prepared by:
New Jersey Department of Labor & Workforce Development
Office of Research & Information
Bureau of Labor Market Information
Winter 2015 - 2016



STATE OF NEW JERSEY
DEPARTMENT OF LABOR AND
WORKFORCE DEVELOPMENT



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THE GOAL OF THIS REPORT IS TO GET AN “IDEA” OF WHAT TECHNOLOGY MEANS TO NEW JERSEY

Identify the types of industries and establishments that make up the technology industry cluster based on a standard industry classification system

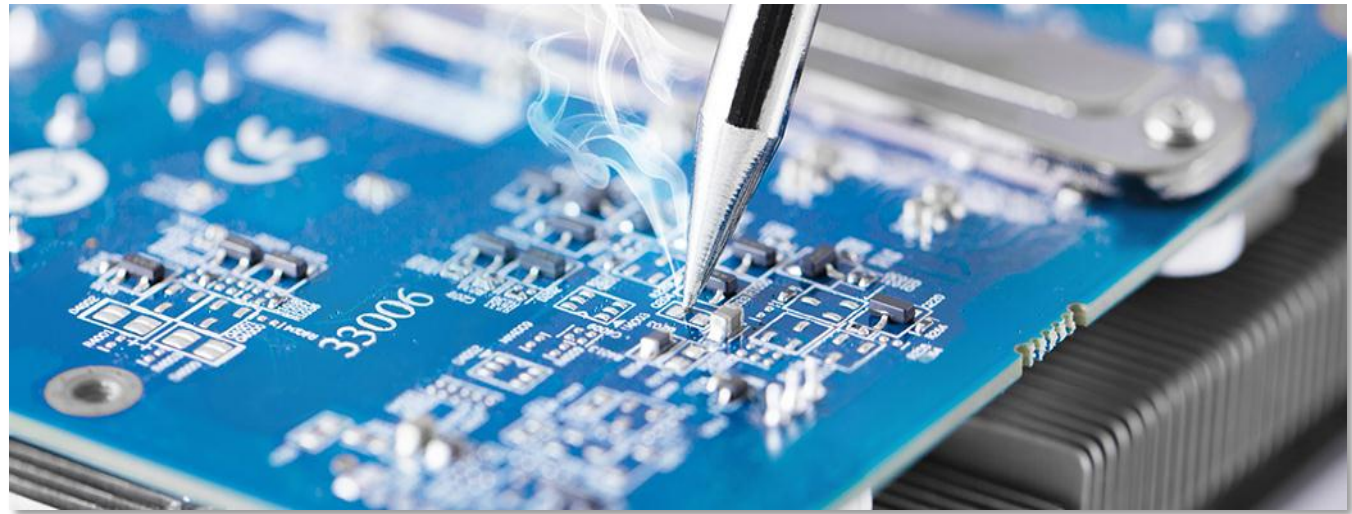
Describe any similarities and differences among its components with regard to such variables as employment, wage, occupation type, education, and demographic characteristics

Examine any present distinctions within the cluster and its components that give New Jersey a competitive advantage compared to neighboring states, regions or the nation, or show areas where New Jersey could improve to add to the state’s economy

Analyze the current state of the technology industry cluster and provide an outlook for employment into the future



TECHNOLOGY INDUSTRY CLUSTER: OVERVIEW



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)

NAICS and Industry Description

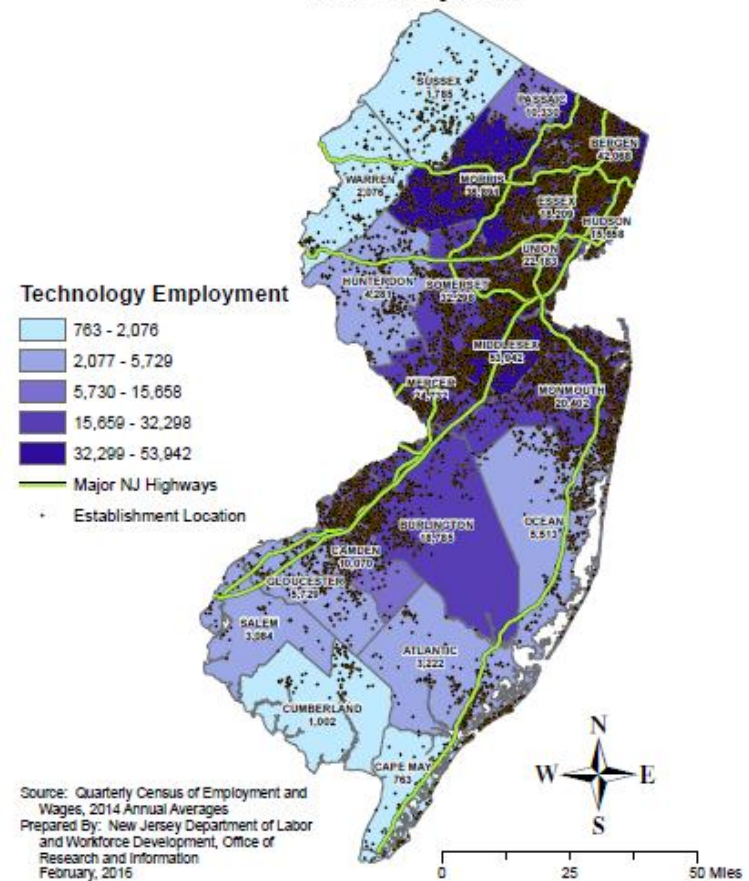
2111	Oil and gas extraction	3364	Aerospace product and parts manufacturing
2211	Power generation and supply	4234	Commercial equip. merchant wholesalers
3241	Petroleum and coal products manufacturing	4236	Electric goods merchant wholesalers
3251	Basic chemical manufacturing	4242	Druggists' goods merchant wholesalers
3252	Resin, rubber, and artificial fibers mfg.	4861	Pipeline transportation of crude oil (NA, QCEW)
3254	Pharmaceutical and medicine manufacturing	5112	Software publishers
3332	Industrial machinery manufacturing	5171	Wired telecommunications carriers
3333	Commercial and service industry machinery	5172	Wireless telecommunications carriers
3336	Turbine and power transmission equipment mfg.	5174	Satellite telecommunications
3341	Computer and peripheral equipment mfg.	5179	Other telecommunications
3342	Communications equipment manufacturing	5182	Data processing and related services
3343	Audio and video equipment manufacturing	5191	Other information services
3344	Semiconductor and electronic component mfg.	5211	Monetary authorities - central bank
3345	Electronic instrument manufacturing	5413	Architectural and engineering services
3346	Magnetic media manufacturing and reproducing	5415	Computer systems design and related services
3353	Electrical equipment manufacturing	5416	Management and technical consulting services
		5417	Scientific research and development services

The technology cluster was expanded to reflect the new U.S. Bureau of Labor Statistics definition of technology industries (2013). BLS designated NAICS industries as technology based on concentration levels of Science, Technology, Engineering & Math (STEM) occupations within the industries

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER EMPLOYMENT OVERVIEW

- In 2014, New Jersey's technology cluster accounted for 359,700 jobs or 11.0 percent of all private sector employment statewide. Nationally the cluster was responsible for 9.6 percent of all private sector employment.
- Annual average wage for the technology cluster was \$114,530 in 2014 or 190.4 percent of the statewide average (\$60,150) for all industries. Employers in the industry paid over \$41.2 billion in wages, or 21.0 percent of the total wages paid in all industries.
- Employment within the technology cluster can primarily be found within: professional, scientific and technical services (48.6%), manufacturing (19.2%), wholesale trade (15.9%), and information (14.2%).
- From 2004 to 2014 employment in the cluster peaked in 2007 at 392,970 jobs.

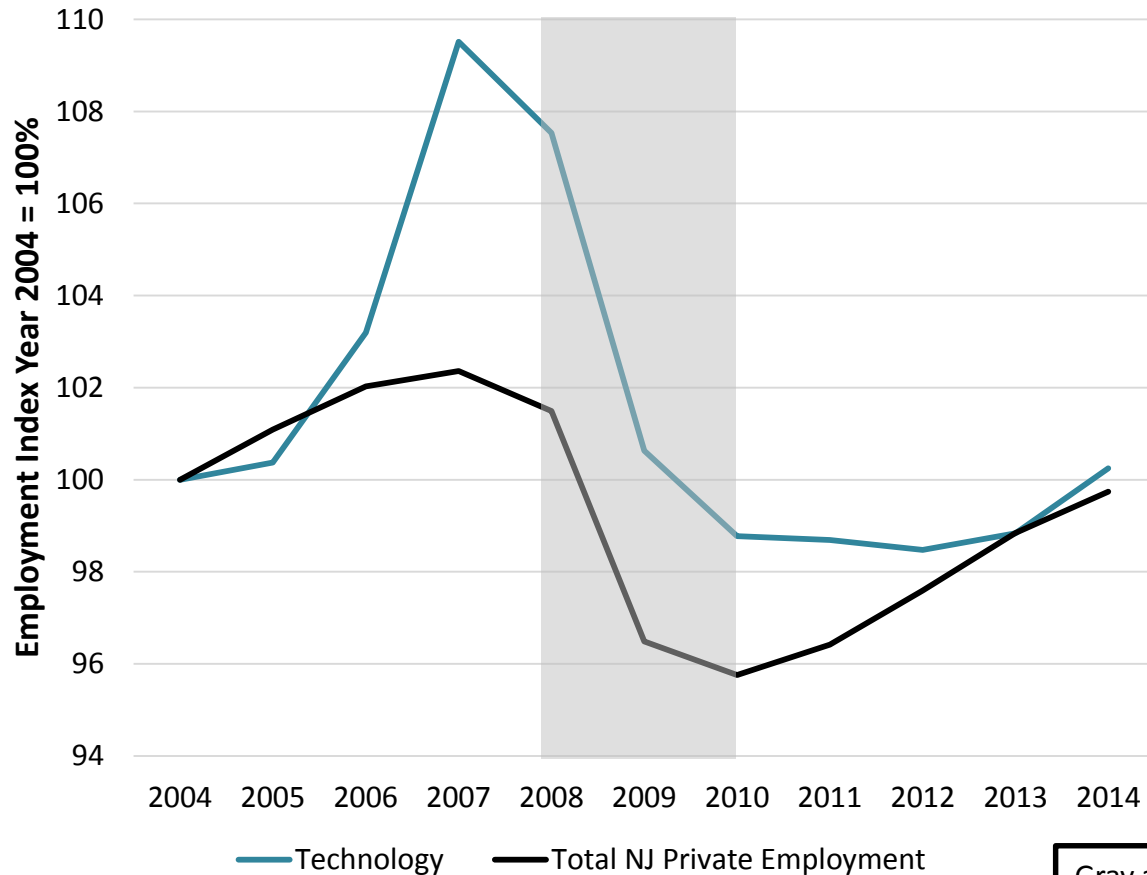
Technology Employment and Establishment Locations
New Jersey, 2014



TECHNOLOGY INDUSTRY CLUSTER: EMPLOYMENT ANALYSIS



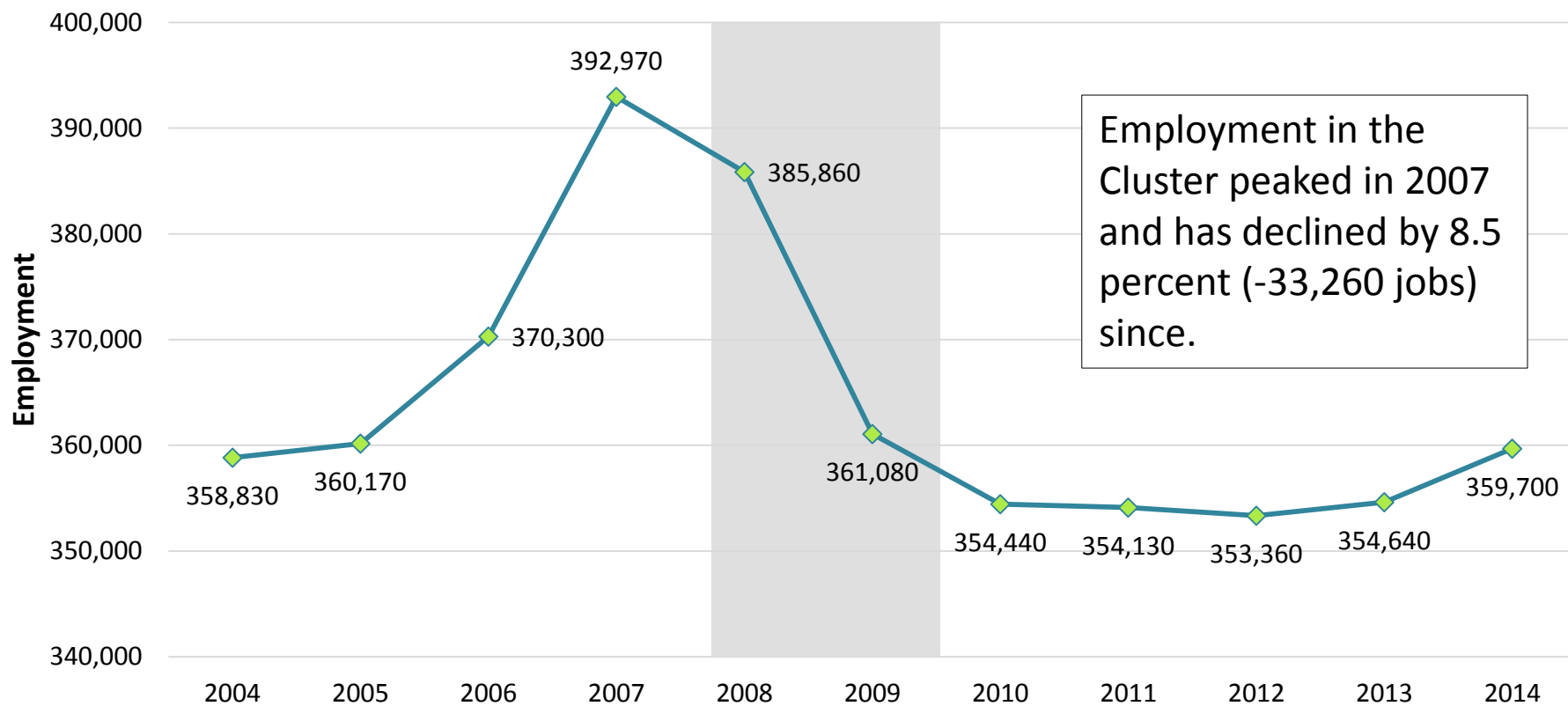
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER ALL PRIVATE SECTOR VS. TECHNOLOGY EMPLOYMENT, 2004-2014



- After remaining nearly flat from 2010 to 2013 (+0.1%), the NJ technology industry sector employment experienced an increase from 2013 to 2014 (1.4%), and is currently above the 2004 employment level (+0.2%).
- Total statewide private sector employment experienced a larger increase than the technology industry sector from 2010 to 2014 (+4.2% vs. 1.5%), but is currently below the 2004 employment level (-0.3%).

Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER 10-YEAR TECHNOLOGY CLUSTER EMPLOYMENT TREND, 2004-2014

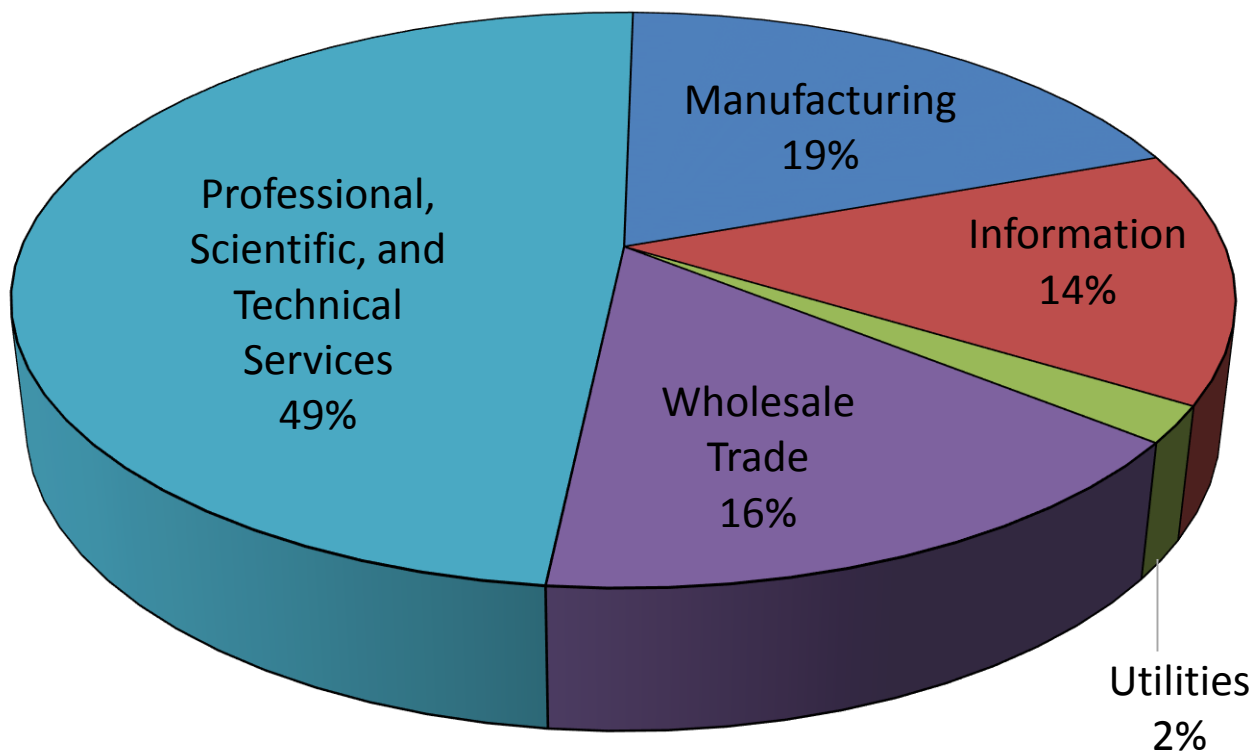


Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER PERCENT EMPLOYMENT BY COMPONENT SECTOR, 2014

2014 Employment



- Professional, scientific, and technical services industries accounted for nearly half of the NJ technology cluster with 174,680 employment in 2014.
- Computer systems design and related services represented the most of this subsector with nearly 70,000 employment.



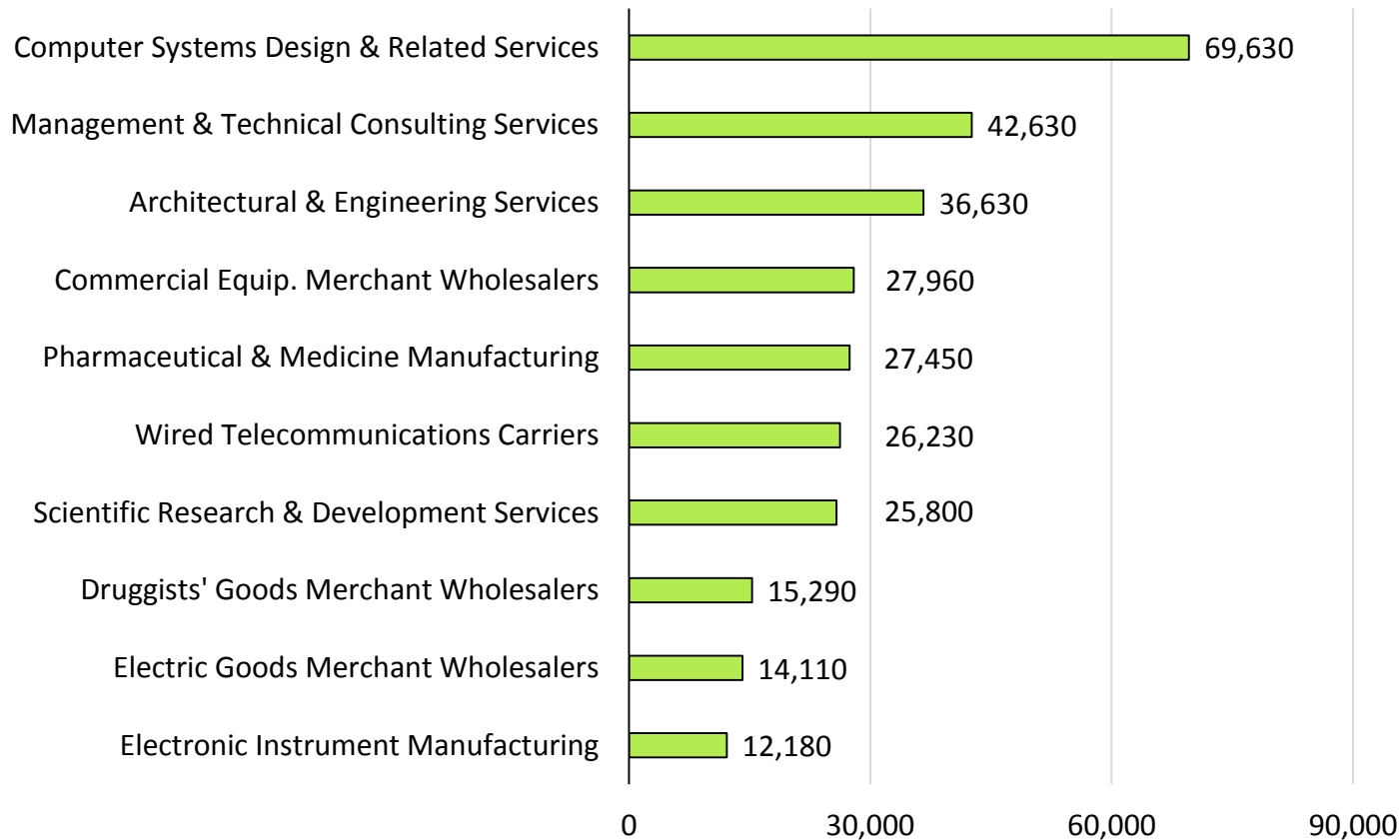
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER COMPONENT SECTORS, 2014 ANNUAL AVERAGES

Description	Units	Average Employment	Wages	
			Average	Total
All Private Sector Industries	254,710	3,264,260	\$60,150	\$196,333,665,600
Technology Industry Cluster	26,620	359,700	\$114,530	\$41,196,887,290
Manufacturing	1,490	69,020	\$121,640	\$8,395,562,940
Wholesale Trade	2,980	57,360	\$116,890	\$6,704,343,100
Information	2,280	51,090	\$110,560	\$5,648,276,310
Professional, Scientific, and Technical Services	19,700	174,680	\$111,750	\$19,521,076,290
Other	190	7560	\$122,730	\$927,628,660

- Nearly $\frac{3}{4}$ of all business establishments in the technology cluster were in the professional, scientific and technical services sector in 2014.
- The average wage for the utilities subsector was more than double the NJ total private sector average wage.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER TOP COMPONENT INDUSTRIES RANKED BY EMPLOYMENT, 2014

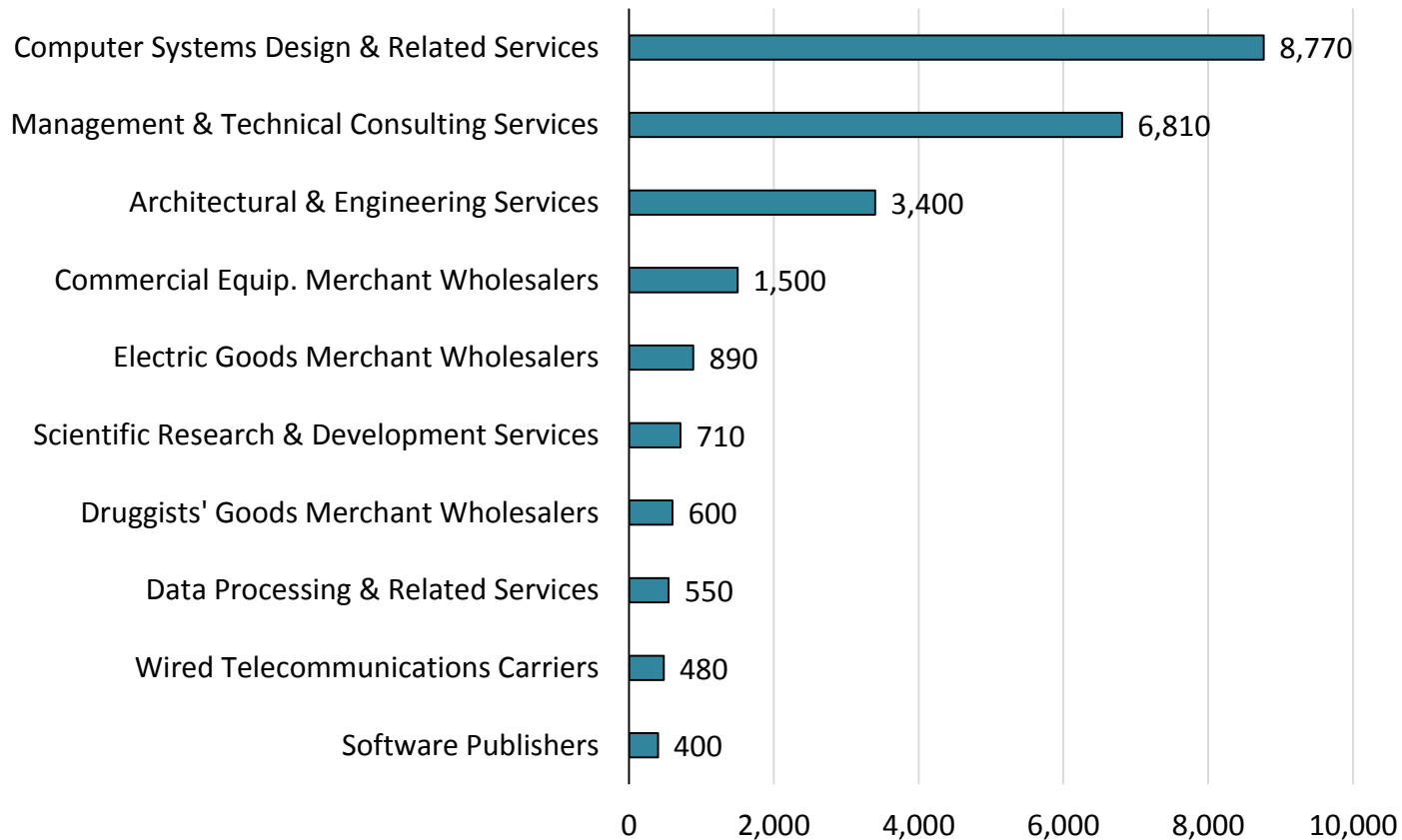
2014 Employment



Within the technology cluster over 83 percent of employment was found in only ten industries in 2014.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER TOP COMPONENT INDUSTRIES RANKED BY ESTABLISHMENTS, 2014

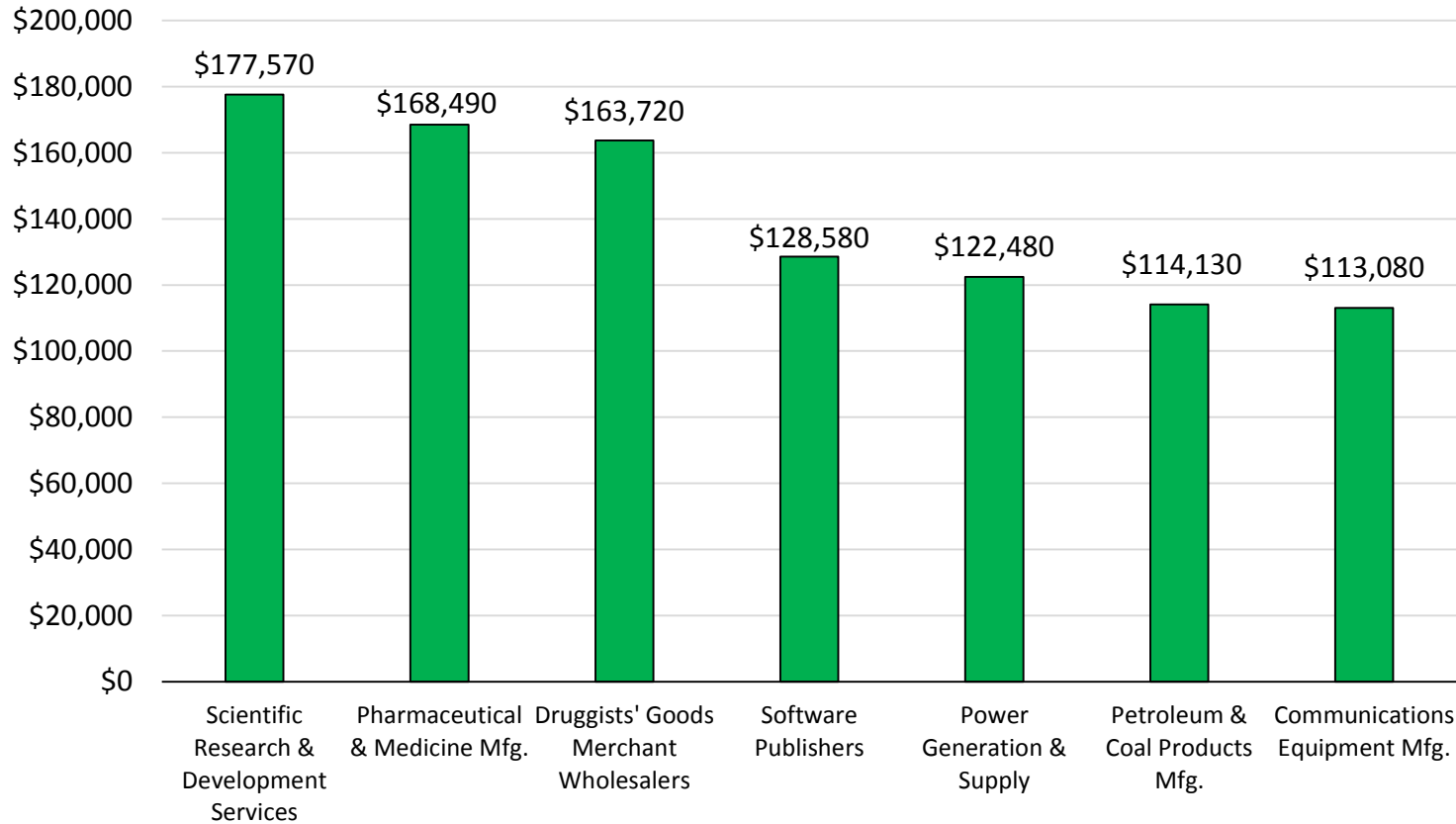
2014 Establishments



Computer systems design and related services, management and technical consulting services, and architectural and engineering services accounted for nearly $\frac{3}{4}$ of all establishments in the technology industry cluster in 2014.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER TOP COMPONENT INDUSTRIES RANKED BY AVERAGE WAGE, 2014

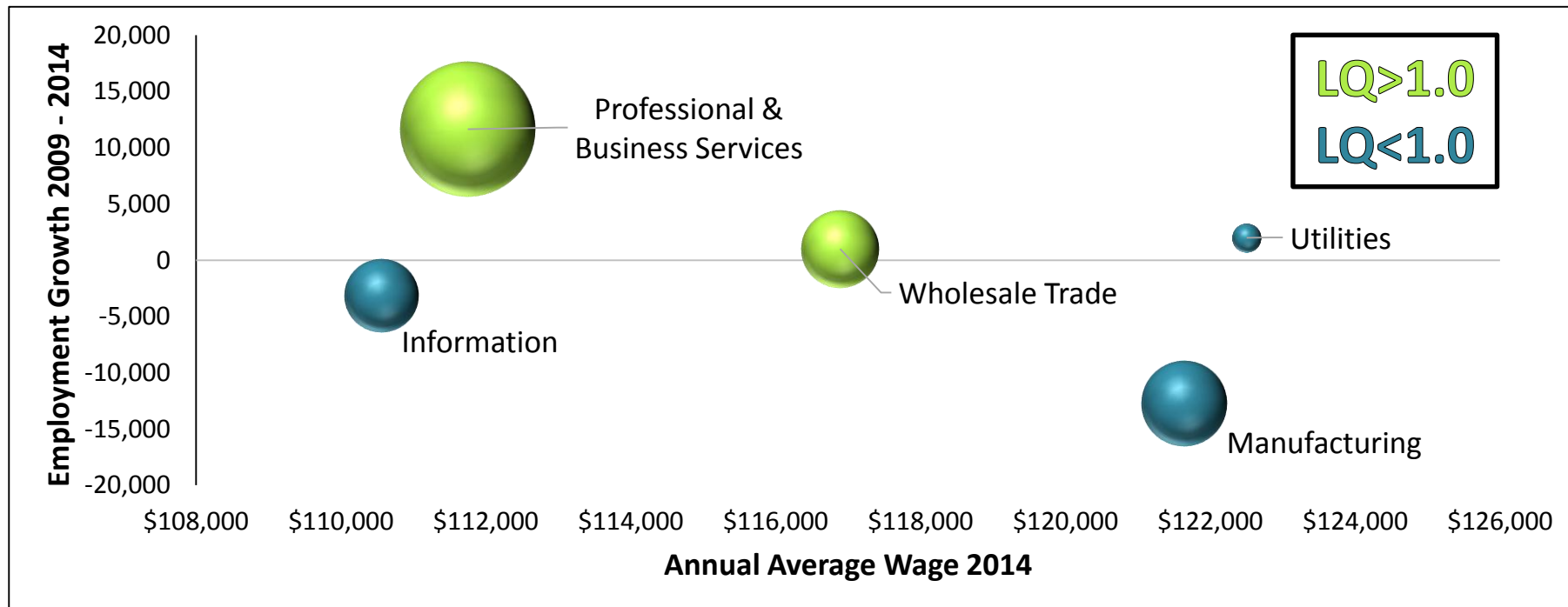
2014 Average Wage



The scientific research and development services industry has the 6th highest 2014 annual average wage across all industries in New Jersey.



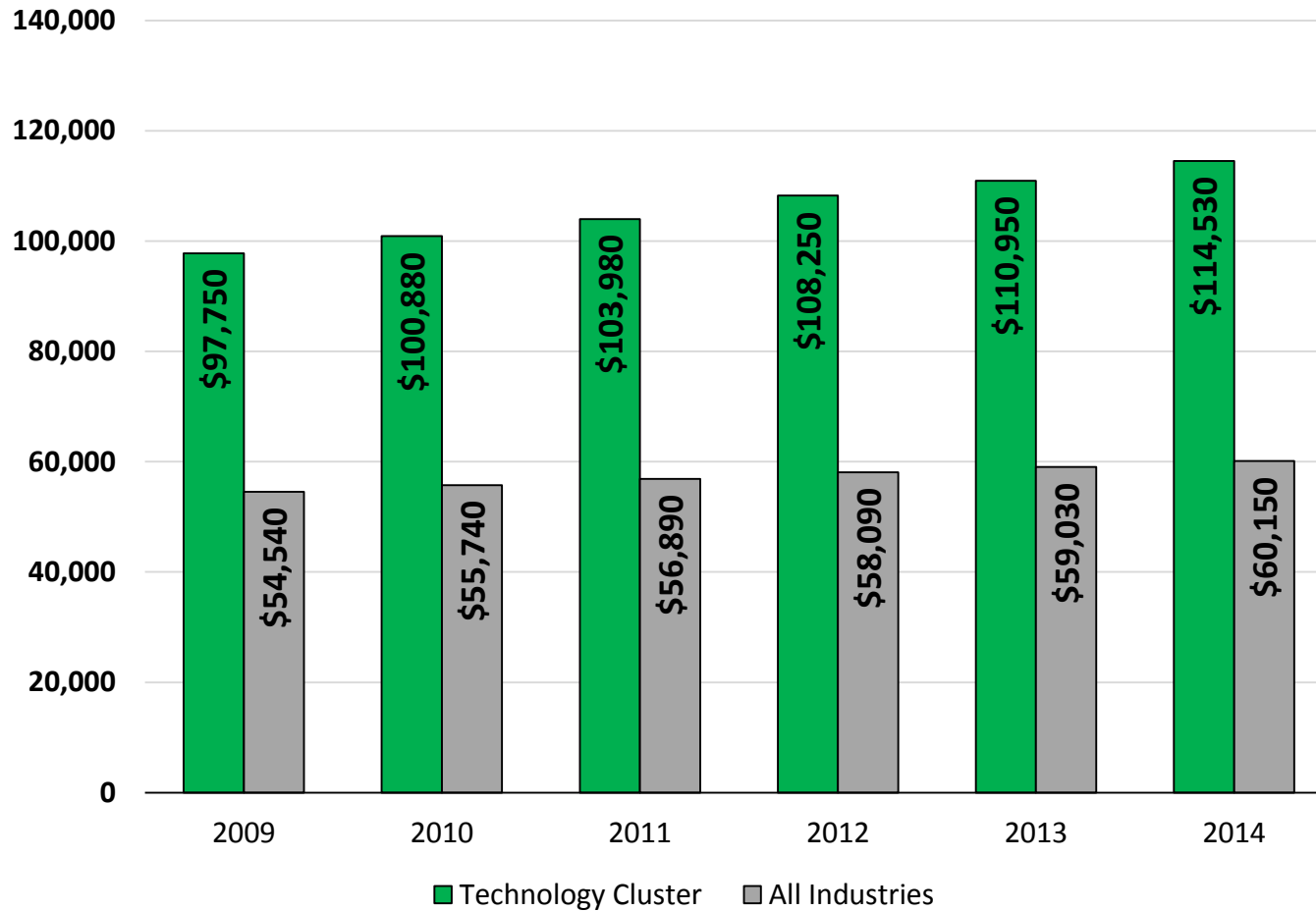
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER EMPLOYMENT SIZE, GROWTH, SALARY & LOCATION QUOTIENT



The above bubble graph has four elements:

1. Total 2014 employment - represented by the size of the bubble.
2. 2009-2014 employment growth- shown on the Y-axis, or vertical position.
3. 2014 annual average wages - shown on the X-axis, or horizontal position.
4. Location quotient - indicated by the color of the bubble. The location quotient compares the concentration of the industry subsectors in the state to those of the nation. Industries with a location quotient above 1 are known as “basic industries” which (in theory) export a good or service from the state and in return, bring in wealth.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER ALL PRIVATE SECTOR VS. TECHNOLOGY ANNUAL AVERAGE WAGE



- Wages in the technology cluster have averaged 184.6% of the statewide annual average wage since 2009.
- Annual average wages for the technology cluster have risen +17.2% over the five year period from 2009 to 2014.



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER PROFESSIONAL, SCIENTIFIC & TECHNICAL SERVICES, 2014

NAICS and Industry Description	Units	Average Employment	Wages	
			Average	Total
Technology Industry Cluster	26,620	359,700	\$114,530	\$41,196,887,290
Professional, Scientific, and Technical Services Sector	19,690	174,680	\$111,750	\$19,521,076,290
Computer systems design & related services	8,770	69,630	\$112,330	\$7,821,619,110
Management & technical consulting services	6,810	42,630	\$90,390	\$3,853,163,850
Architectural & engineering services	3,400	36,630	\$89,140	\$3,264,992,860
Scientific research & development services	710	25,800	\$177,570	\$4,581,300,470

Employment in computer systems design and related services accounted for 19.4 percent of total technology cluster employment and 32.9 percent of its establishments.



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER MANUFACTURING SECTOR, 2014

NAICS and Industry Description	Units	Average Employment	Wages	
			Average	Total
Technology Industry Cluster	26,620	359,700	\$114,530	\$41,196,887,290
Manufacturing Sector	1,480	69,020	\$121,650	\$8,395,562,940
Pharmaceutical and medicine manufacturing	250	27,450	\$168,490	\$4,625,079,700
Electronic instrument manufacturing	310	12,180	\$98,150	\$1,195,643,940
Semiconductor and electronic component mfg.	190	7,540	\$71,720	\$540,872,680
Basic chemical manufacturing	110	6,110	\$108,900	\$665,408,320
Petroleum and coal products manufacturing	70	2,920	\$114,130	\$333,166,930
Industrial machinery manufacturing	140	2,750	\$71,290	\$196,073,020
Communications equipment manufacturing	100	2,320	\$113,080	\$262,652,840
Electrical equipment manufacturing	70	1,980	\$70,310	\$138,819,710
Commercial and service industry machinery	70	1,470	\$67,660	\$99,447,630
Aerospace product and parts manufacturing	20	1,410	\$74,550	\$104,705,460
Resin, rubber, and artificial fibers mfg.	40	810	\$83,480	\$67,447,820
Computer and peripheral equipment mfg.	50	460	\$102,640	\$47,300,810

Pharmaceutical and medicine manufacturing led the manufacturing component in share of employment (39.8%) and wages (55.1%) in 2014.

Due to disclosure, totals may not be exact.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER INFORMATION SECTOR, 2014

NAICS and Industry Description	Units	Average Employment	Wages	
			Average	Total
Technology Industry Cluster	26,620	359,700	\$114,530	\$41,196,887,290
Information Sector	2,280	51,090	\$110,560	\$5,648,276,310
Wired telecommunications carriers	480	26,230	\$112,520	\$2,951,003,090
Other information services	350	5,240	\$108,800	\$569,702,260
Software publishers	400	5,140	\$128,580	\$661,123,520
Other telecommunications	310	2,760	\$93,810	\$258,994,680
Wireless telecommunications carriers	170	2,320	\$93,510	\$216,468,740

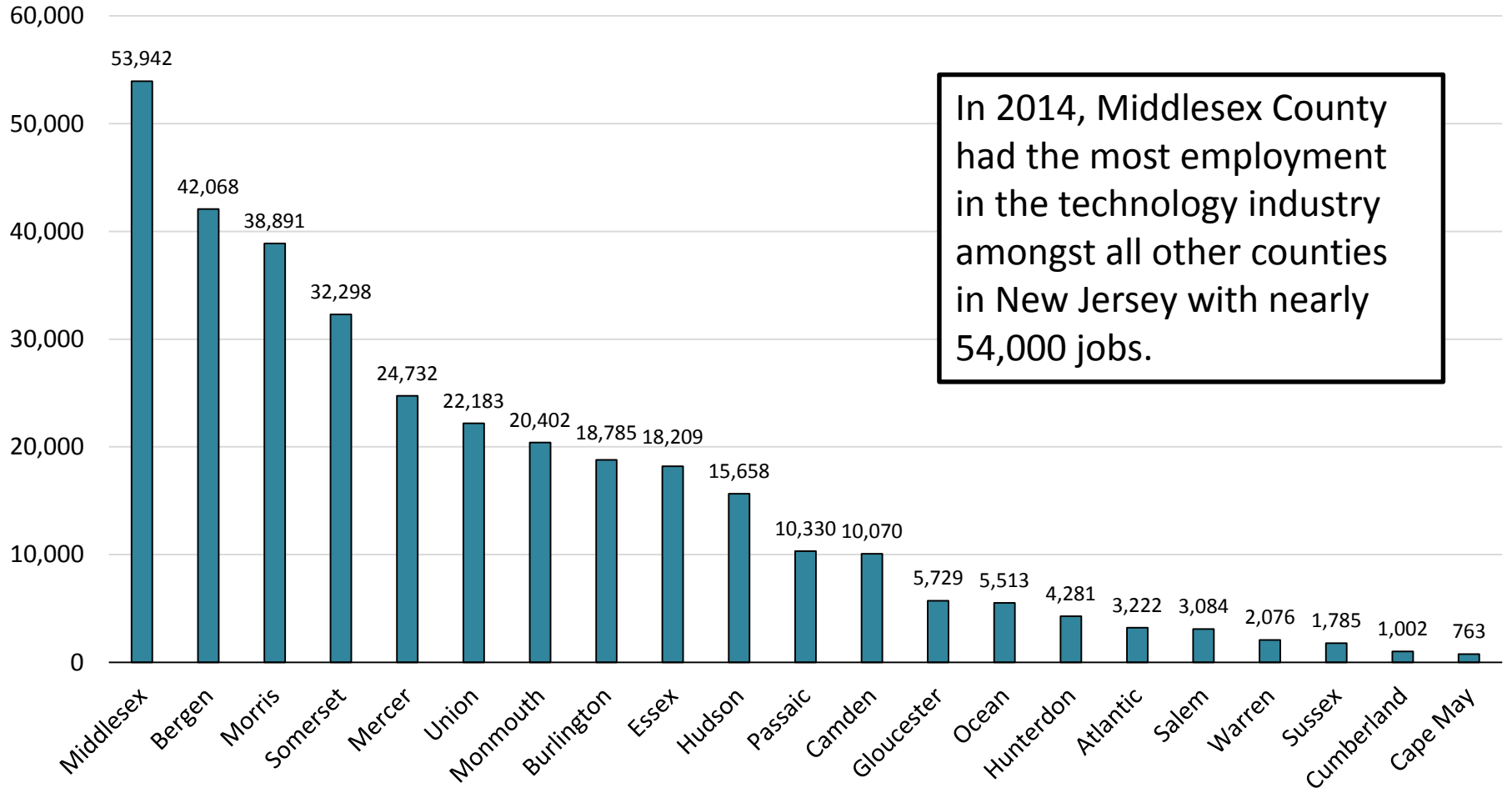
Wages in the information component were 96.5 percent of the technology industry cluster average in 2014.

Due to disclosure some industries were not included.

TECHNOLOGY INDUSTRY CLUSTER: REGIONAL AND COUNTY EMPLOYMENT ANALYSIS

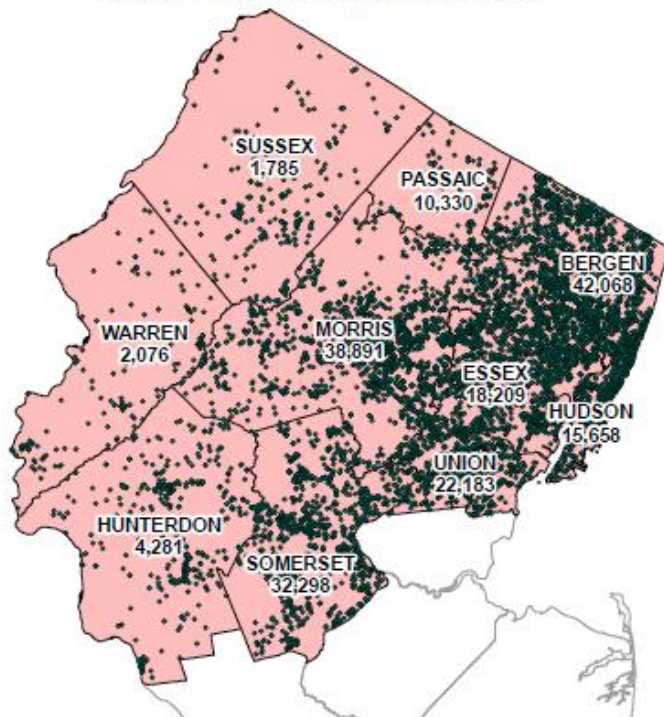


NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER TECHNOLOGY EMPLOYMENT BY COUNTY, 2014 ANNUAL AVERAGES



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER NORTHERN REGION, 2014 ANNUAL AVERAGES

Technology Employment and Establishment Locations
Northern Region of New Jersey, 2014



0 12.5 25 Miles

Source: Quarterly Census of Employment and Wages, 2014 Annual Averages
Prepared By: New Jersey Department of Labor and Workforce Development, Office of Research and Information
February, 2016

Area	Establishments	Average Wages	Total Wages
Total NJ Technology	26,620	\$114,530	\$41,196,887,290
Northern Region	11,410	\$125,130	\$23,495,866,170
Bergen County	2,940	\$104,970	\$4,415,944,710
Morris County	2,020	\$125,820	\$4,893,144,580
Somerset County	1,540	\$145,360	\$4,694,888,770
Essex County	1,320	\$97,680	\$1,778,700,500
Hudson County	980	\$135,670	\$2,124,253,140
Union County	940	\$169,330	\$3,756,346,770
Passaic County	770	\$89,300	\$922,426,940
Hunterdon County	460	\$141,040	\$603,806,610
Sussex County	260	\$78,700	\$140,480,800
Warren County	190	\$79,900	\$165,873,340



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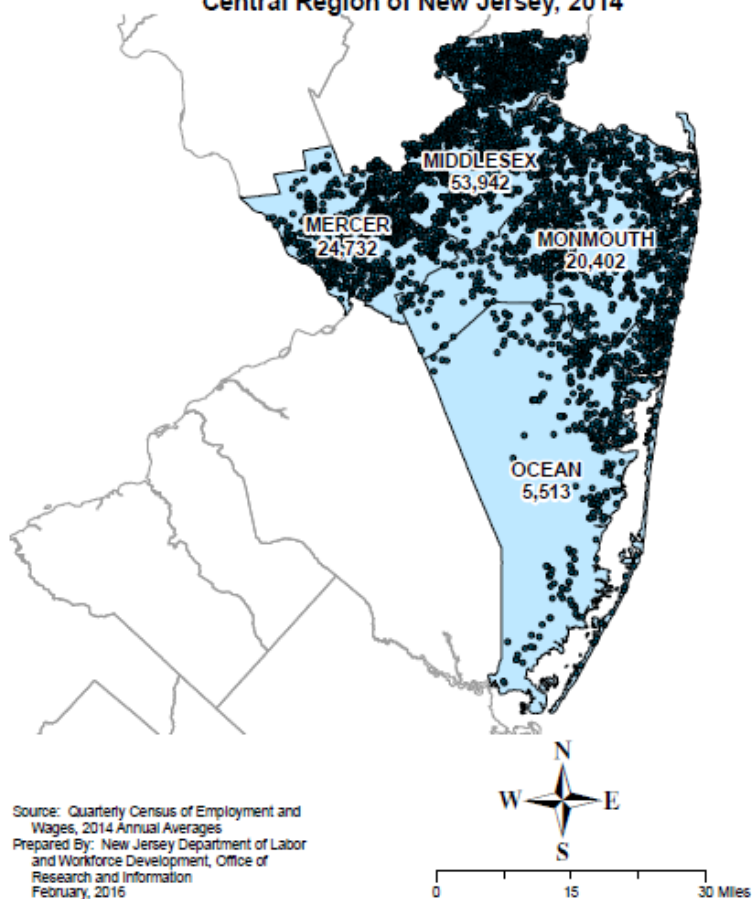


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014 Annual Averages

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER CENTRAL REGION, 2014 ANNUAL AVERAGES

Technology Employment and Establishment Locations
Central Region of New Jersey, 2014

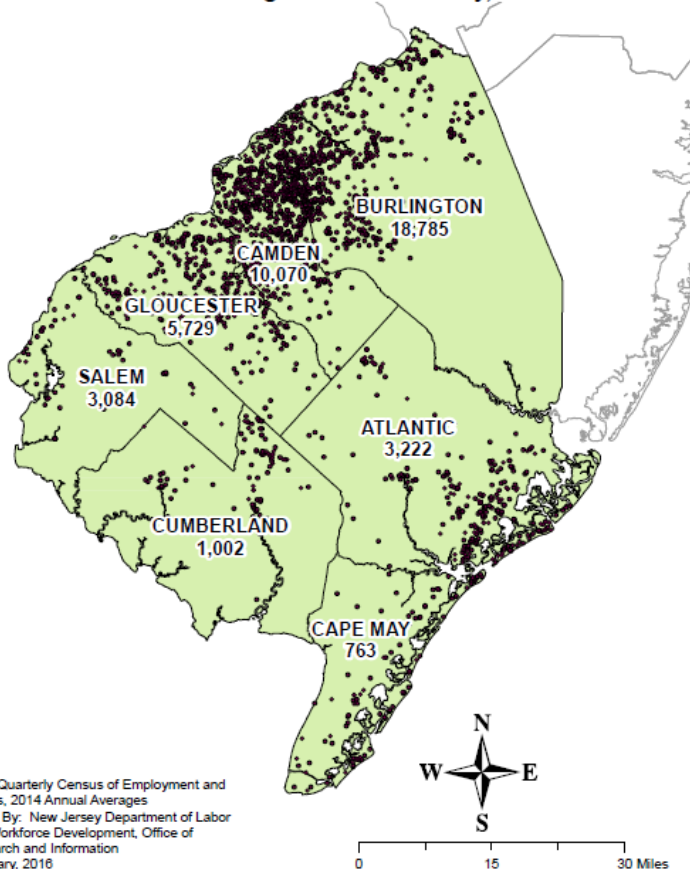


Area	Establishments	Wages	Total Wages
Total NJ Technology	26,620	\$114,530	\$41,196,887,290
Central Region	7,430	\$91,310	\$11,216,985,150
Middlesex County	3,330	\$102,540	\$5,531,341,160
Monmouth County	1,890	\$103,160	\$2,104,651,600
Mercer County	1,660	\$128,220	\$3,171,227,670
Ocean County	560	\$74,330	\$409,764,730



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER SOUTHERN REGION, 2014 ANNUAL AVERAGES

Technology Employment and Establishment Locations
Southern Region of New Jersey, 2014



Source: Quarterly Census of Employment and Wages, 2014 Annual Averages
Prepared By: New Jersey Department of Labor and Workforce Development, Office of Research and Information
February, 2016

Area	Establishments	Wages	Total Wages
Total NJ Technology	26,620	\$114,530	\$41,196,887,290
Southern Region	2,840	\$84,620	\$3,609,644,420
Burlington County	1,080	\$91,310	\$1,715,331,080
Camden County	790	\$75,110	\$756,318,390
Gloucester County	400	\$70,880	\$406,046,310
Atlantic County	300	\$80,270	\$258,615,170
Cape May County	110	\$64,050	\$48,867,680
Cumberland County	100	\$60,020	\$60,139,010
Salem County	50	\$118,130	\$364,326,790



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014 Annual Averages

TECHNOLOGY INDUSTRY CLUSTER: OCCUPATIONAL ANALYSIS

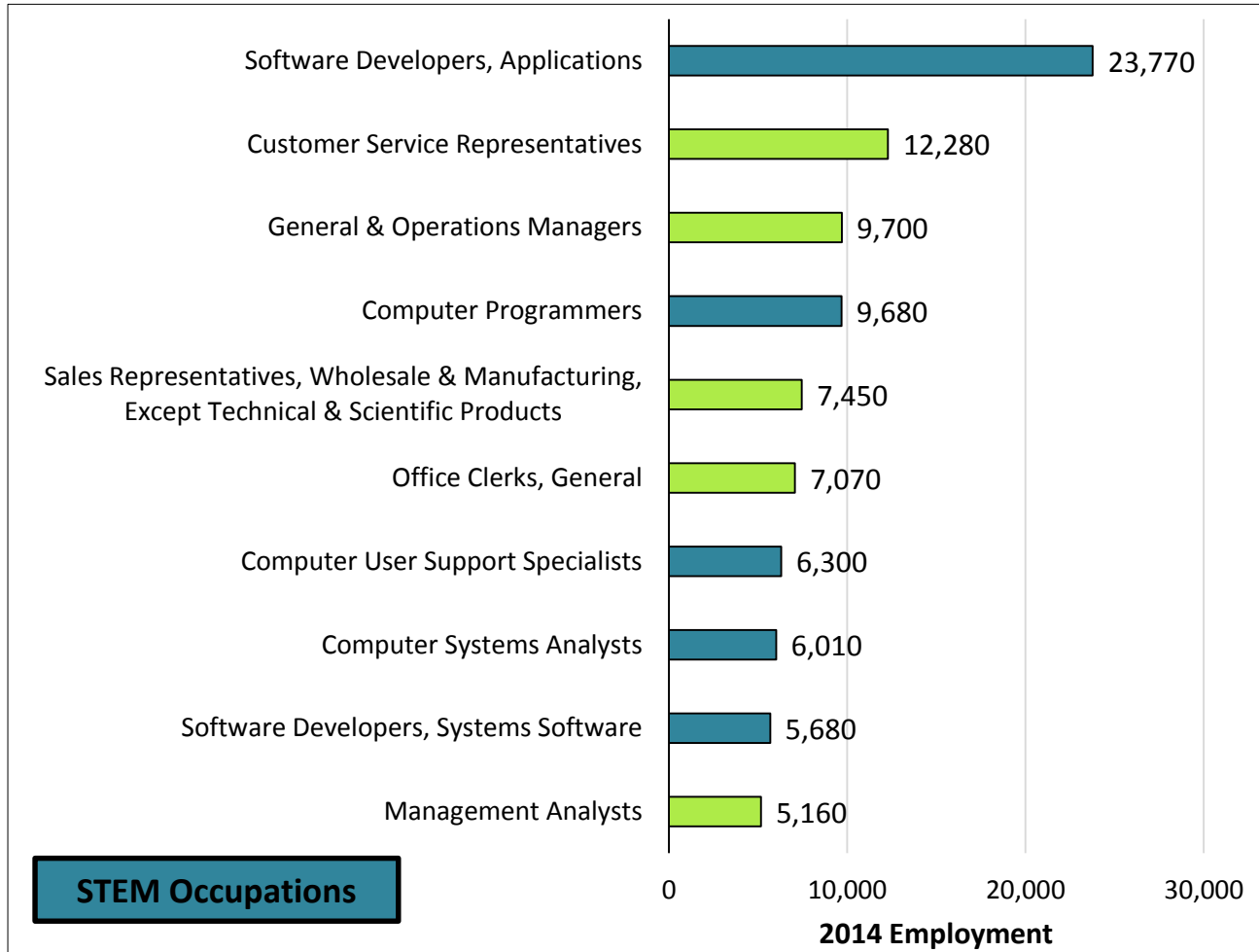


NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER TOP OCCUPATIONAL GROUPS, 2014

Occupational Title	2014 Employment	Percent of Total Employment	2014 Average Salary
All Technology Occupations	361,970	100.0%	\$74,640
Computer and Mathematical Occupations	72,980	20.2%	\$92,610
Office and Administrative Support Occupations	54,520	15.1%	\$38,560
Management Occupations	41,550	11.5%	\$138,740
Business and Financial Operations Occupations	37,310	10.3%	\$78,730
Architecture and Engineering Occupations	31,490	8.7%	\$86,580
Production Occupations	30,210	8.3%	\$36,190
Sales and Related Occupations	27,740	7.7%	\$42,680
Installation, Maintenance, and Repair Occupations	20,740	5.7%	\$51,190
Life, Physical, and Social Science Occupations	17,190	4.7%	\$80,290
<i>Science, Technology, Engineering, and Mathematical (STEM) Occupations</i>	121,660	33.6%	\$89,310

Science, Technology, Engineering and Mathematical (STEM) occupations accounted for nearly 34 percent of the technology cluster occupational employment in 2014 with 121,660 employment.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER ALL TOP TECHNOLOGY OCCUPATIONS, 2014

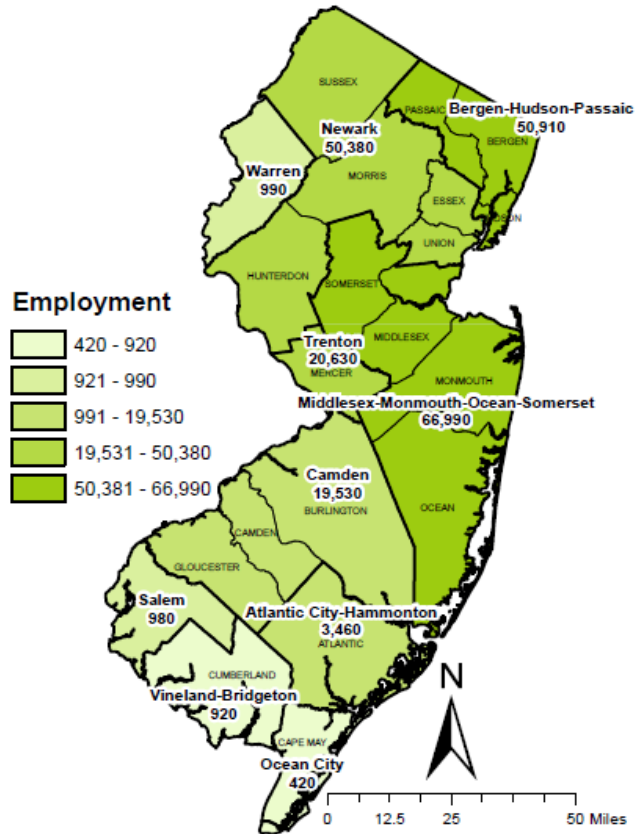


- Eight of the top twenty occupations are science, technology, engineering and math occupations and make-up 17.7 percent of total cluster occupational employment.
- The top twenty technology cluster occupations accounted for 37.9% percent of total technology cluster occupational employment in 2014.



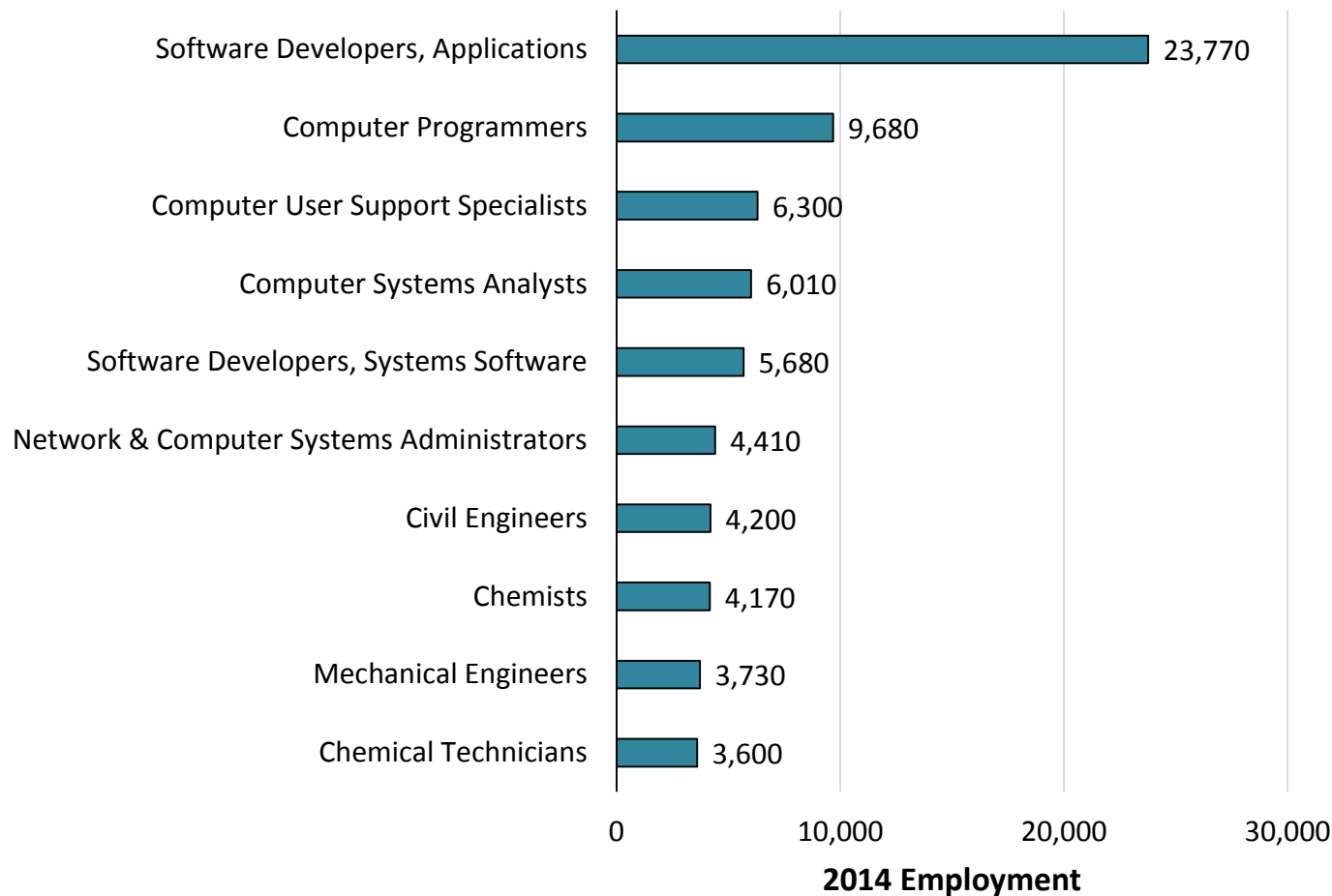
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER ALL STEM OCCUPATIONS BY LABOR AREA

Employment by Labor Area
STEM Occupations in New Jersey, 2014



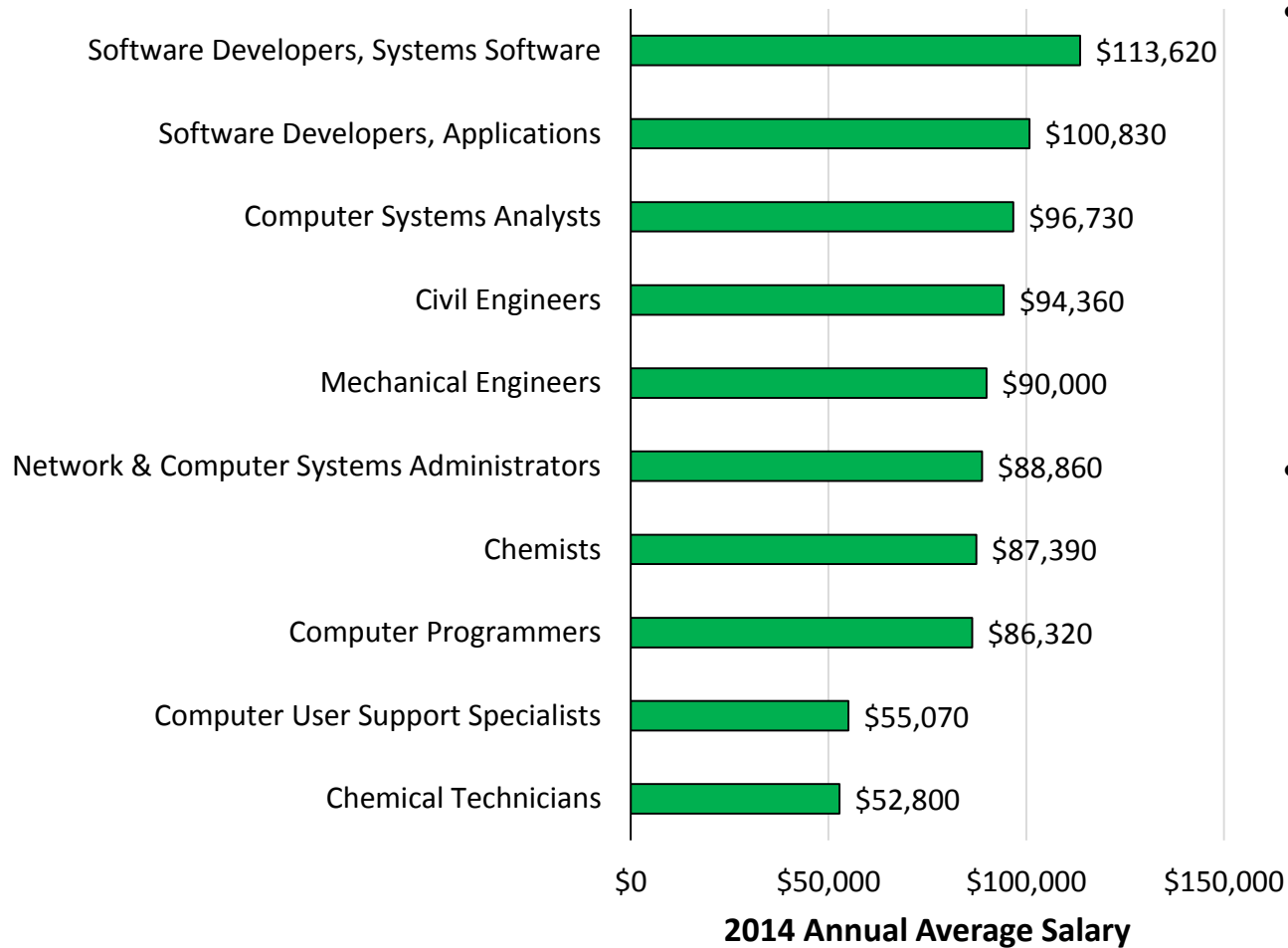
Labor Area	STEM Employment
Middlesex-Monmouth-Ocean-Somerset County Area	66,990
Bergen-Hudson-Passaic County Area	50,910
Essex-Hunterdon-Morris-Sussex-Union County Area	50,380
Mercer County Area	20,630
Burlington-Camden-Gloucester County Area	19,530
Atlantic County Area	3,460
Warren County Area	990
Salem County Area	980
Cumberland County Area	920
Cape May County Area	420

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER LARGEST STEM OCCUPATIONS BY EMPLOYMENT, 2014



- The top six STEM occupations are related to computers.
- Applications software developers accounted for 19.5 percent of employment in the technology industry cluster in 2014.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER ANNUAL AVERAGE SALARY FOR LARGEST STEM OCCUPATIONS, 2014



- The highest annual average salary for STEM occupations in 2014 was petroleum engineers but had less than 200 employment in New Jersey.
- 18 of the top 20 twenty STEM occupations by employment had an annual average wage above the state's occupational average (\$53,770).

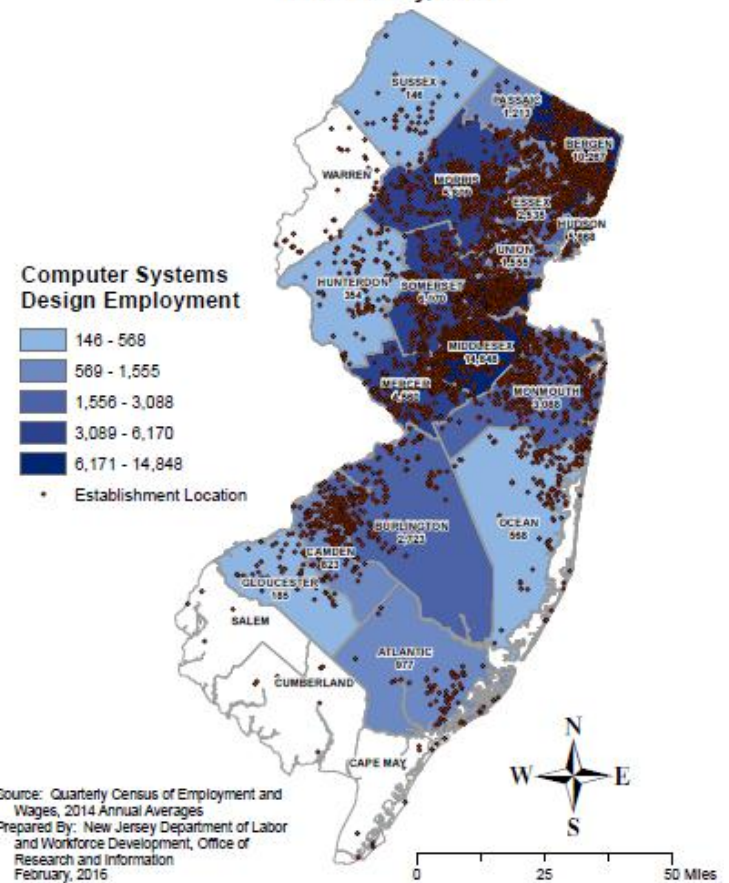
TECHNOLOGY INDUSTRY CLUSTER: SUB-SECTOR ANALYSIS



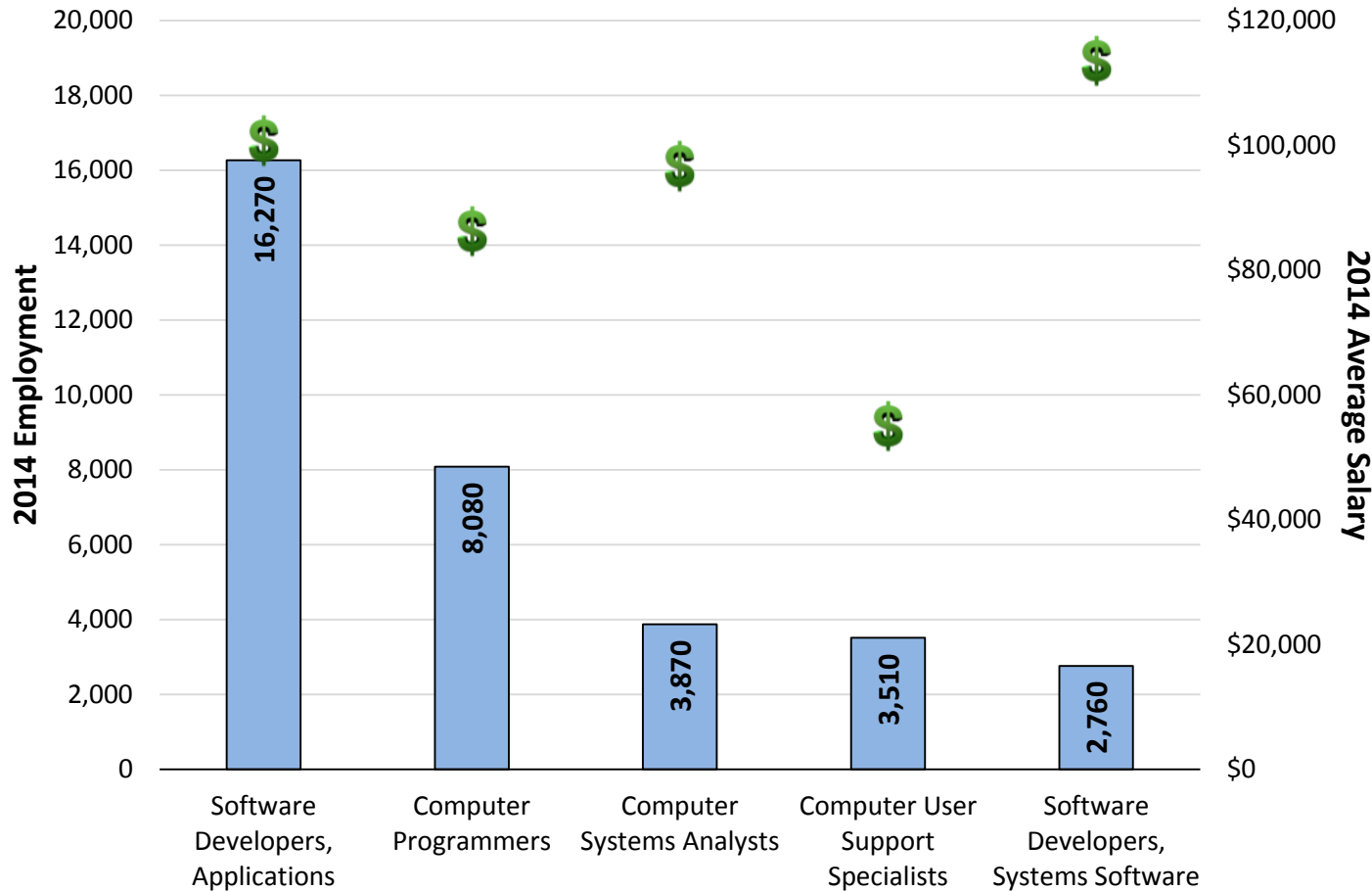
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER COMPUTER SYSTEMS DESIGN AND RELATED SERVICES, 2014

- Provide expertise in the field of information technologies, including software development, planning and development of computer systems and managing onsite computer systems for clients.
- Accounted for nearly one-third of all technology industry cluster establishments in NJ (8,770) in 2014.
- From 2009 to 2014 employment has grown 15.8 percent to 69,630 employment in 2014.
- Over \$7.8 billion dollars paid in total wages, making up nearly twenty percent of total technology industry cluster wages paid in 2014.

Computer Systems Design Employment and Establishment Locations
New Jersey, 2014



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER COMPUTER SYSTEMS DESIGN & RELATED: TOP OCCUPATIONS



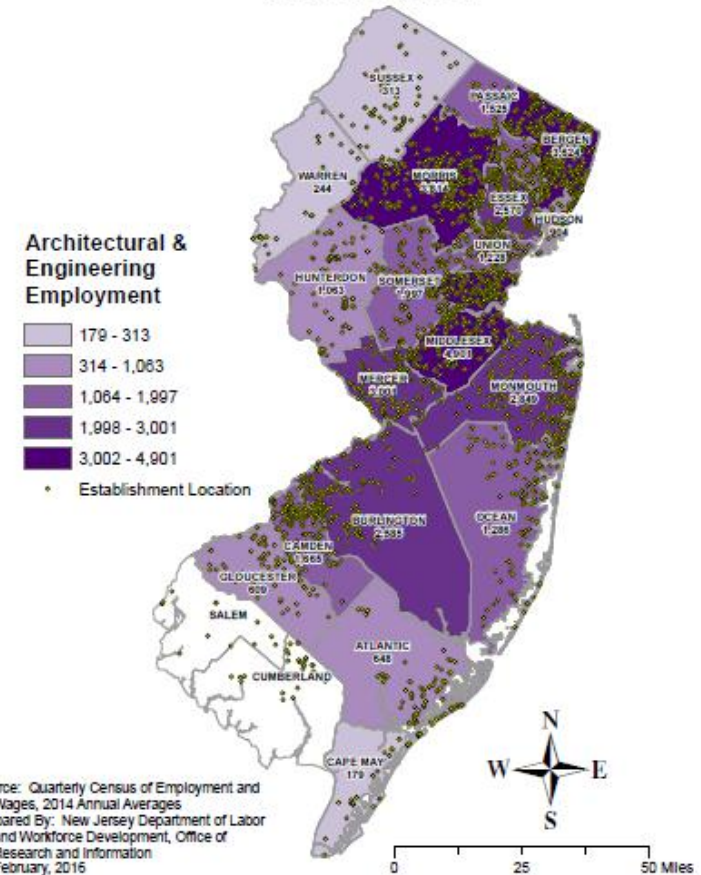
- The top ten occupations in the computer systems design & related services industry make up 62.6 percent.
- The average salary in Computer Systems Design and Related Services (\$91,530) is 122.6 percent of the technology cluster average.



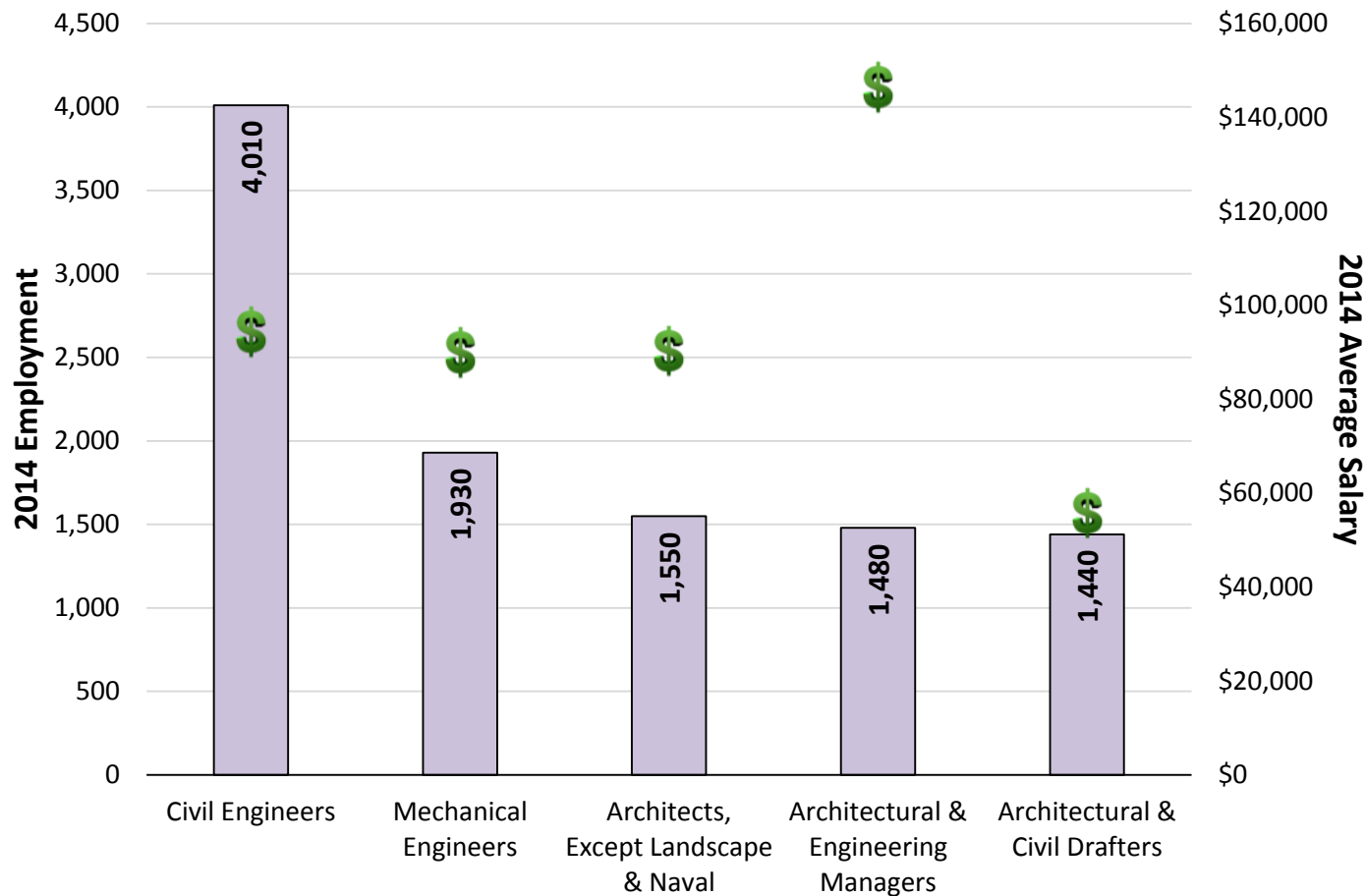
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER ARCHITECTURAL AND ENGINEERING SERVICES, 2014

- Architectural and Engineering Services industry is distributed fairly evenly from Camden and Burlington counties in the southern part of the state through the central counties up through the northeast.
- Accounted for 10.2 percent of all technology industry cluster employment in NJ (36,630) in 2014.
- There are 3400 establishments throughout NJ, with the most in Bergen County (390).
- Over \$3.2 billion dollars paid in total wages, making up nearly eight percent of total technology industry cluster wages paid in 2014.

Architectural and Engineering Employment
and Establishment Locations
New Jersey, 2014



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER ARCHITECTURAL, ENGINEERING & RELATED SERVICES



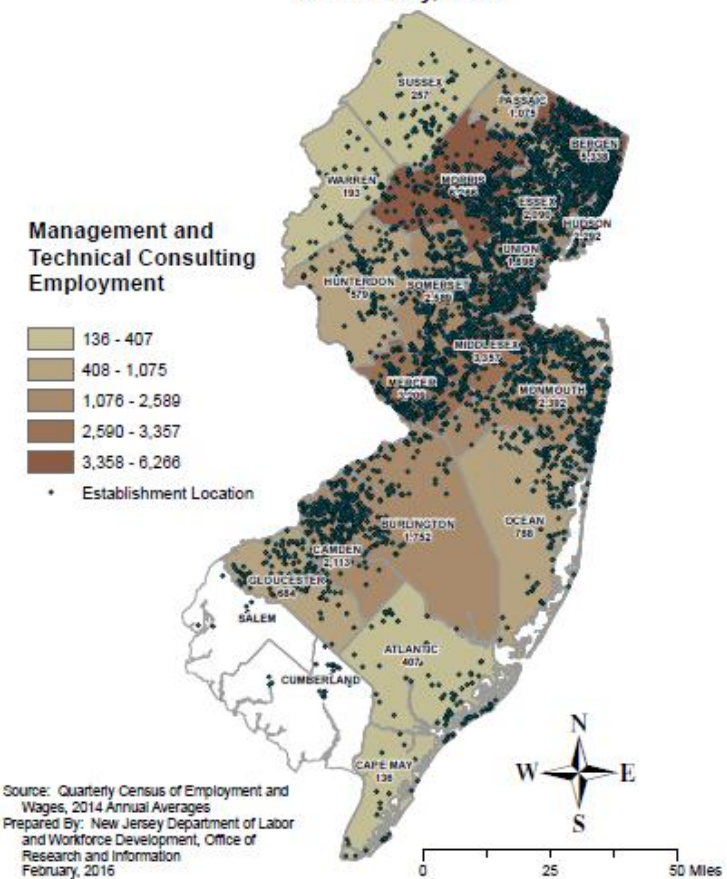
- Civil Engineers accounted for 10.9 percent of employment in the architectural, engineering and related services industry.
- The average salary for architectural, engineering, and related services (\$80,270) is higher than the total technology industry average.



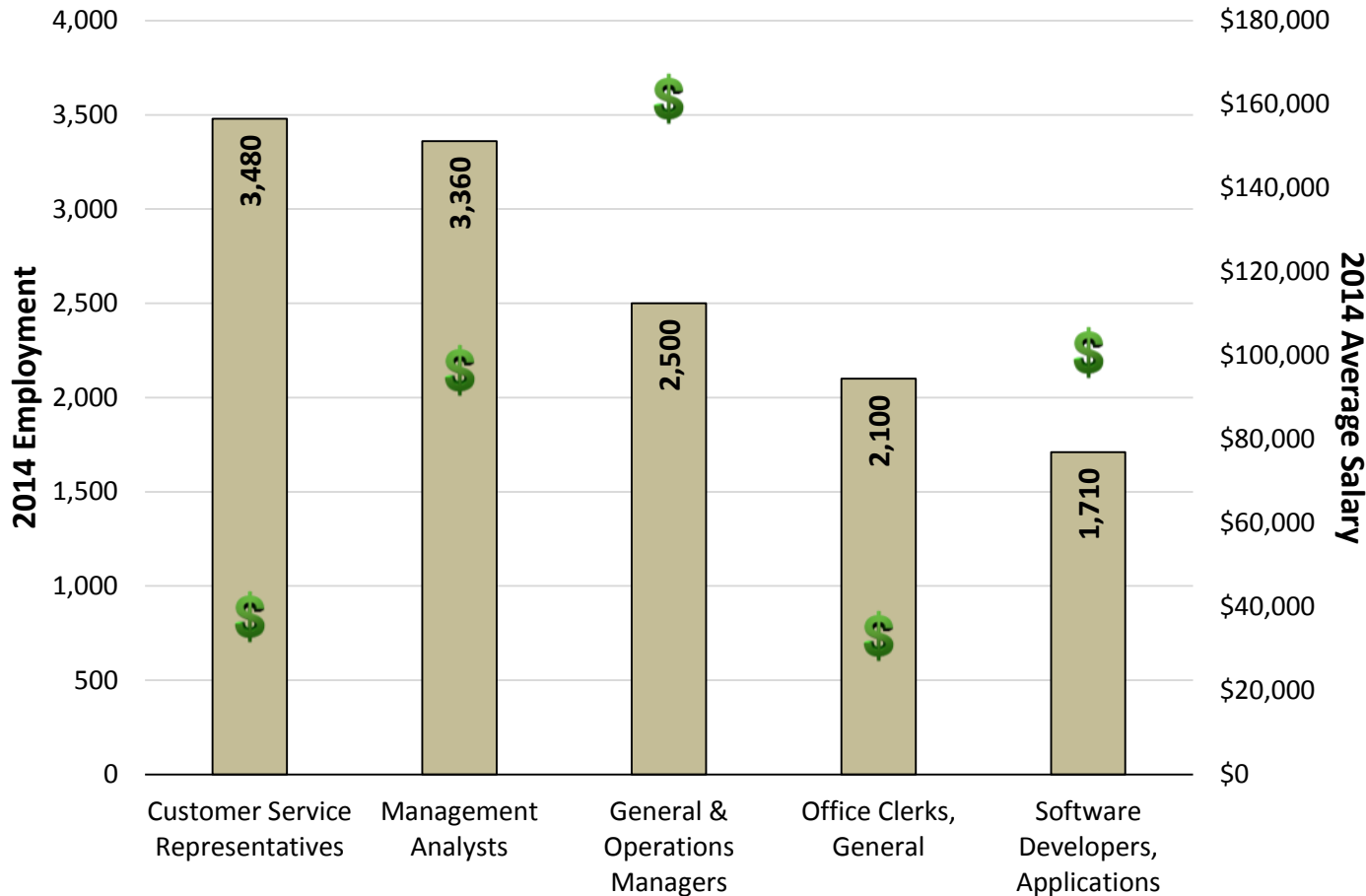
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER MANAGEMENT AND TECHNICAL CONSULTING SERVICES, 2014

- Management and technical consulting services employment (42,630) made up 11.9 percent of the technology industry cluster.
- The average wage for this industry is much lower than the technology industry cluster average (\$90,390 vs. \$114,530).
- Establishments for this cluster accounted for slightly more than one quarter of total technology industry cluster establishments throughout NJ (6,810).
- Nearly \$3.9 billion dollars paid in total wages, making up more than 9.3 percent of all wages paid for the technology industry cluster in 2014.

Management and Technical Consulting Employment and Establishment Locations
New Jersey, 2014



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER MANAGEMENT, SCIENTIFIC & TECHNICAL CONSULTING SERVICES

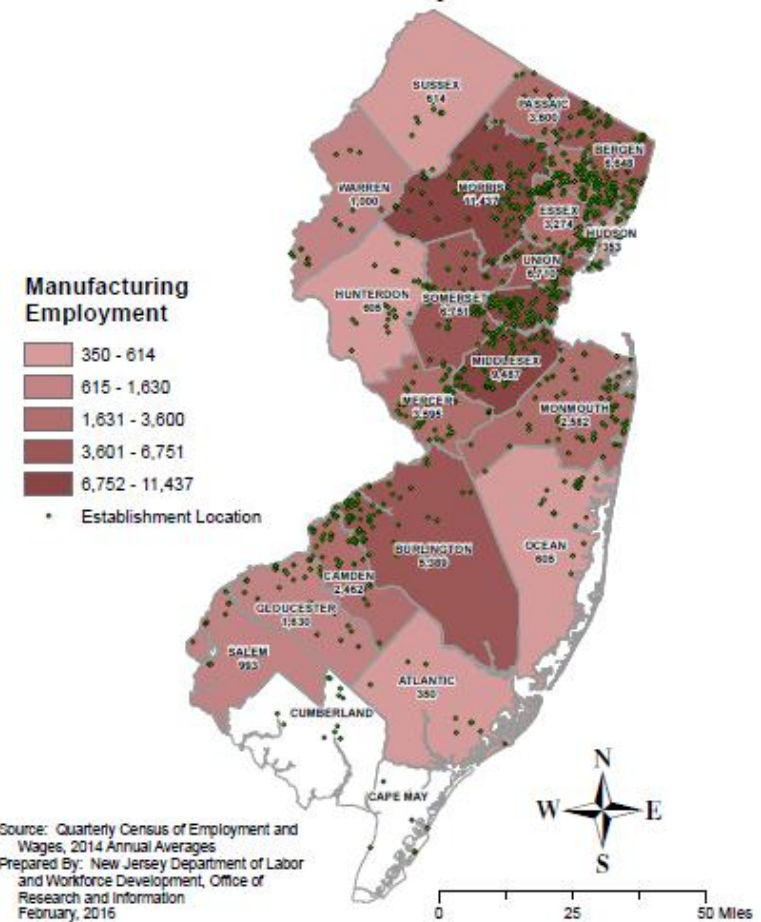


- Accounts for 11.8 percent of the technology industry cluster employment.
- Average salary for the management, scientific, and technical consulting services industry (\$77,960) is higher than the technology industry cluster average.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER MANUFACTURING, 2014

- The state's high technology manufacturing sector is led by the pharmaceutical and medicine manufacturing, and medical device manufacturing industries.
- Average wage is higher than the total technology industry cluster average (\$121,640 vs. \$114,530).
- Manufacturing accounted for 19.1 percent of all technology industry cluster employment (69,020).
- Nearly \$8.4 billion dollars paid in total wages, making up more than twenty percent of all wages paid for the technology industry cluster in 2014.

Manufacturing Employment and Establishment Locations
New Jersey, 2014

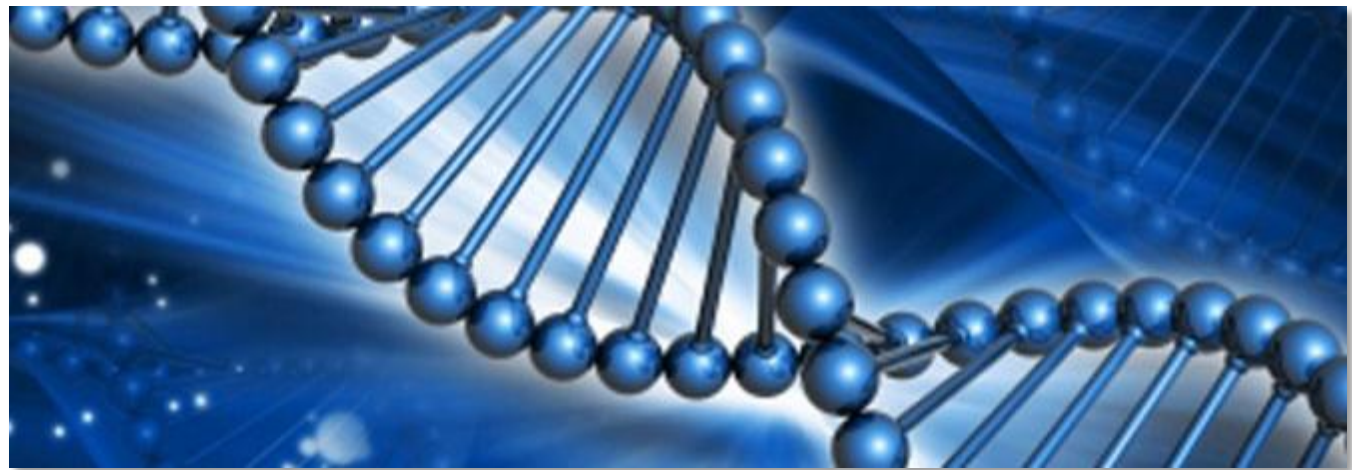


NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER PHARMACEUTICAL MANUFACTURING: TOP OCCUPATIONS



- Pharmaceutical manufacturing industry accounted for 7.7 percent of the technology industry cluster employment.
- Pharmaceutical manufacturing industry average salary (\$61,770) is well below the technology industry cluster average.

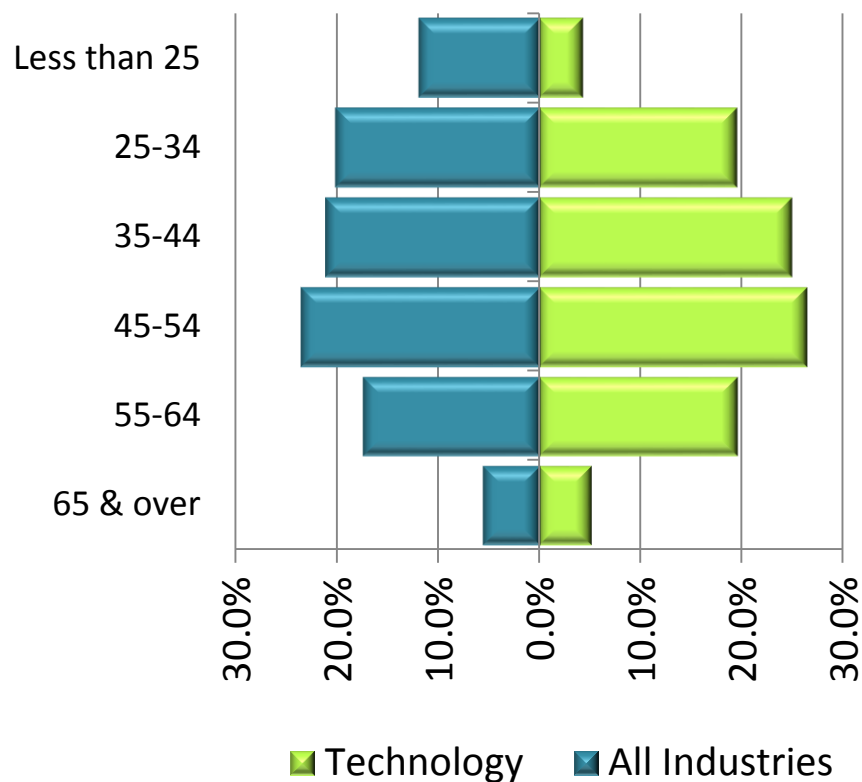
TECHNOLOGY INDUSTRY CLUSTER: 2014 DEMOGRAPHIC OVERVIEW



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER

NJ RESIDENTS IN TECHNOLOGY WORK FORCE VS. TOTAL NONFARM

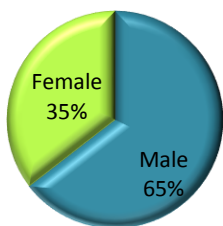
Age Breakdown of Workers in Technology
and All Industries
New Jersey, 2014



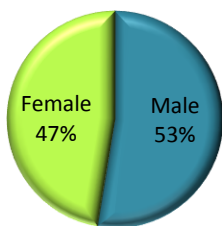
- The workforce of the technology industry is older than average with about 51.2 percent aged 45 and up, compared to only 46.7 percent overall.
- The largest disparity among age cohorts occurs in the youngest group, where only 4.4 percent of the technology workforce is 25 years old or younger.
- 5.2 percent of the current NJ resident technology workforce is aged 65 and older.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER NJ RESIDENTS IN TECHNOLOGY WORK FORCE VS. TOTAL NONFARM

Technology



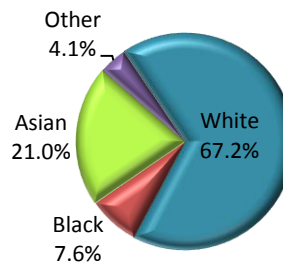
All Industries



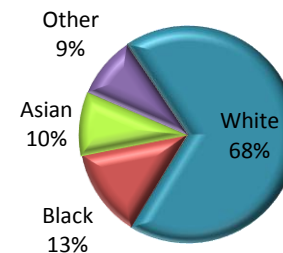
Males outnumber Females by nearly a 2 to 1 margin in the technology workforce.

The technology workforce has a greater proportion of NJ residents who are Asian (21%).

Technology

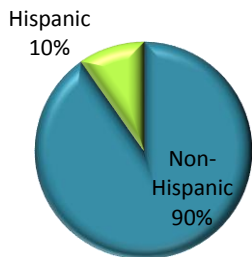


All Industries

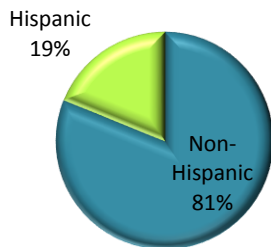


The technology workforce has fewer Hispanics than average.

Technology

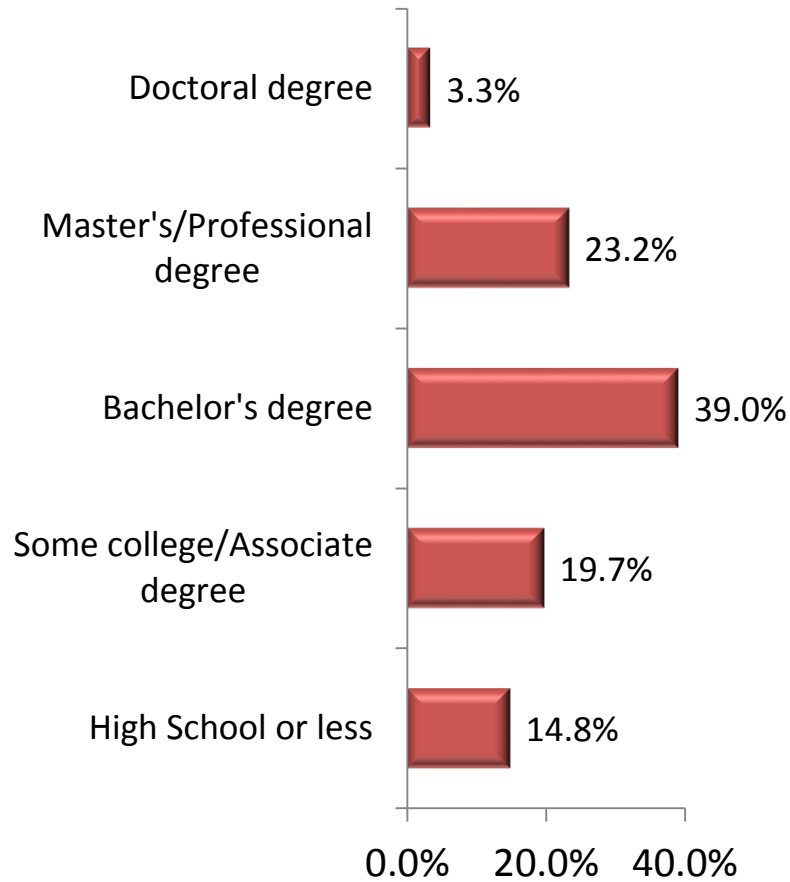


All Industries

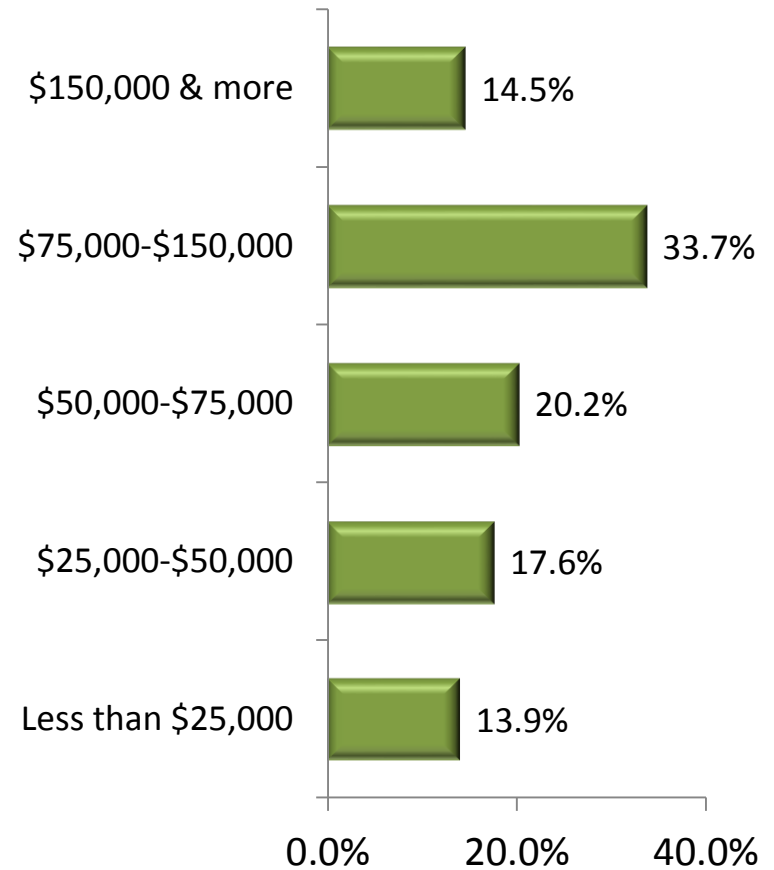


NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER NJ RESIDENTS IN TECHNOLOGY WORK FORCE

Education Level



Personal Earnings



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER

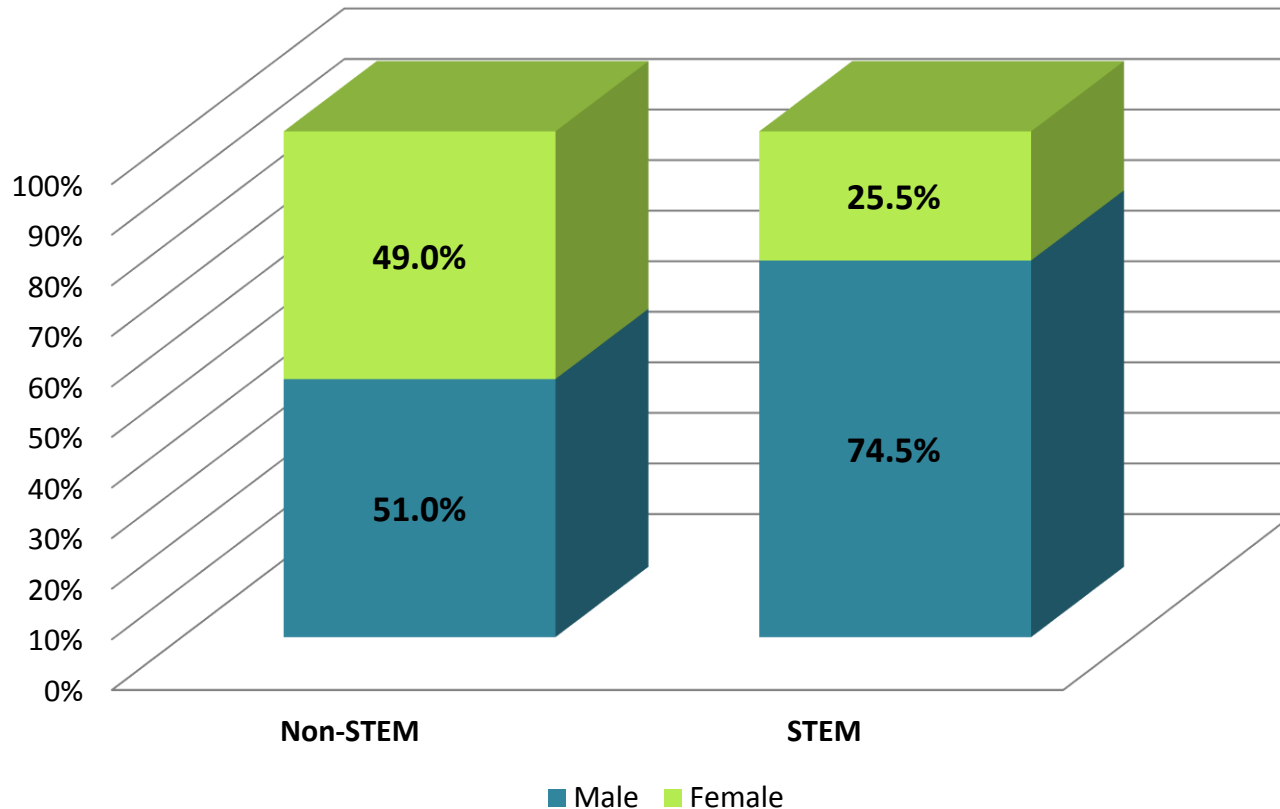
NJ RESIDENTS IN STEM JOBS

Occupation	Total Employment	Male		Female	
		Number	Percent	Number	Percent
STEM total	323,000	240,500	74.5%	82,500	25.5%
Computer Science & Math	178,400	135,000	75.7%	43,400	24.3%
Engineering & Surveying	69,700	58,300	83.7%	11,400	16.3%
Physical & Life Science	42,200	21,300	50.4%	20,900	49.6%
STEM Managers	32,700	25,800	79.0%	6,800	21.0%

- The highest percentage of women is found in physical and life science occupations for NJ residents (49.6%).
- 79.0 percent of NJ residents that are managers for STEM occupations are male.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER NJ RESIDENTS IN STEM JOBS

Gender Shares of Non-STEM and STEM Jobs, 2014

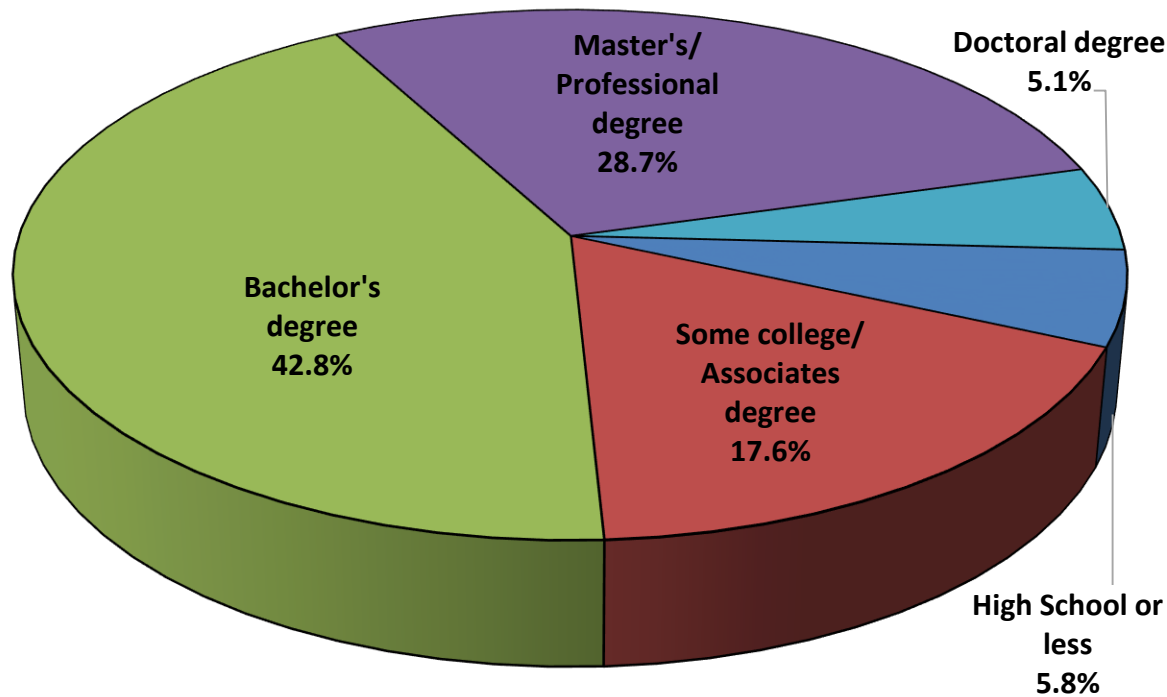


The STEM workforce is predominantly male driven. Resident women hold less than twenty-six percent of science, technology, engineering & math jobs in New Jersey.



NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER EDUCATION CHARACTERISTICS FOR NJ RESIDENTS IN STEM JOBS

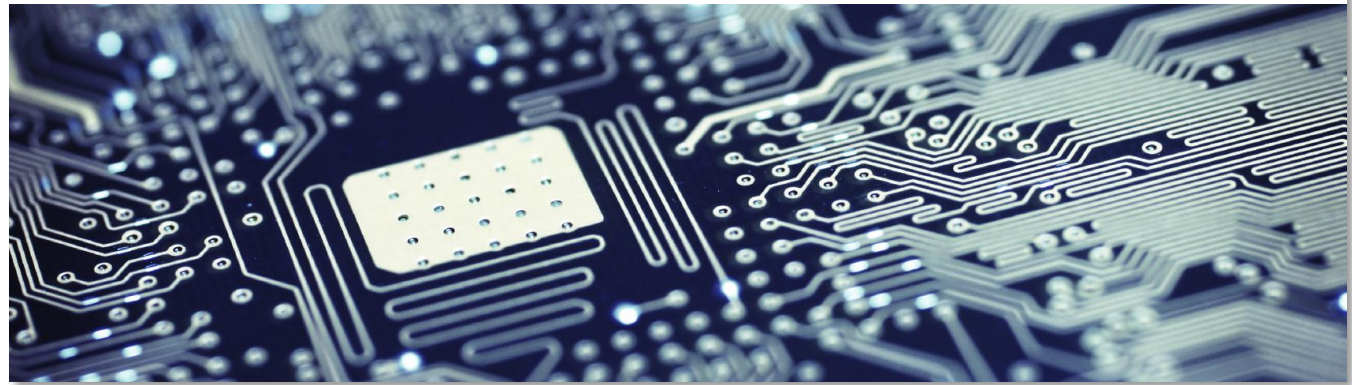
Educational Breakdown



- The STEM workforce requires well-educated and highly skilled workers to meet the high level and technical demands of many of the occupations they fill.
- More than $\frac{3}{4}$ of NJ residents in the STEM workforce hold at least a Bachelor's degree compared to only 36.9 percent of NJ residents in non-stem occupations.



TECHNOLOGY INDUSTRY CLUSTER: OCCUPATIONAL PROJECTIONS AND OUTLOOK



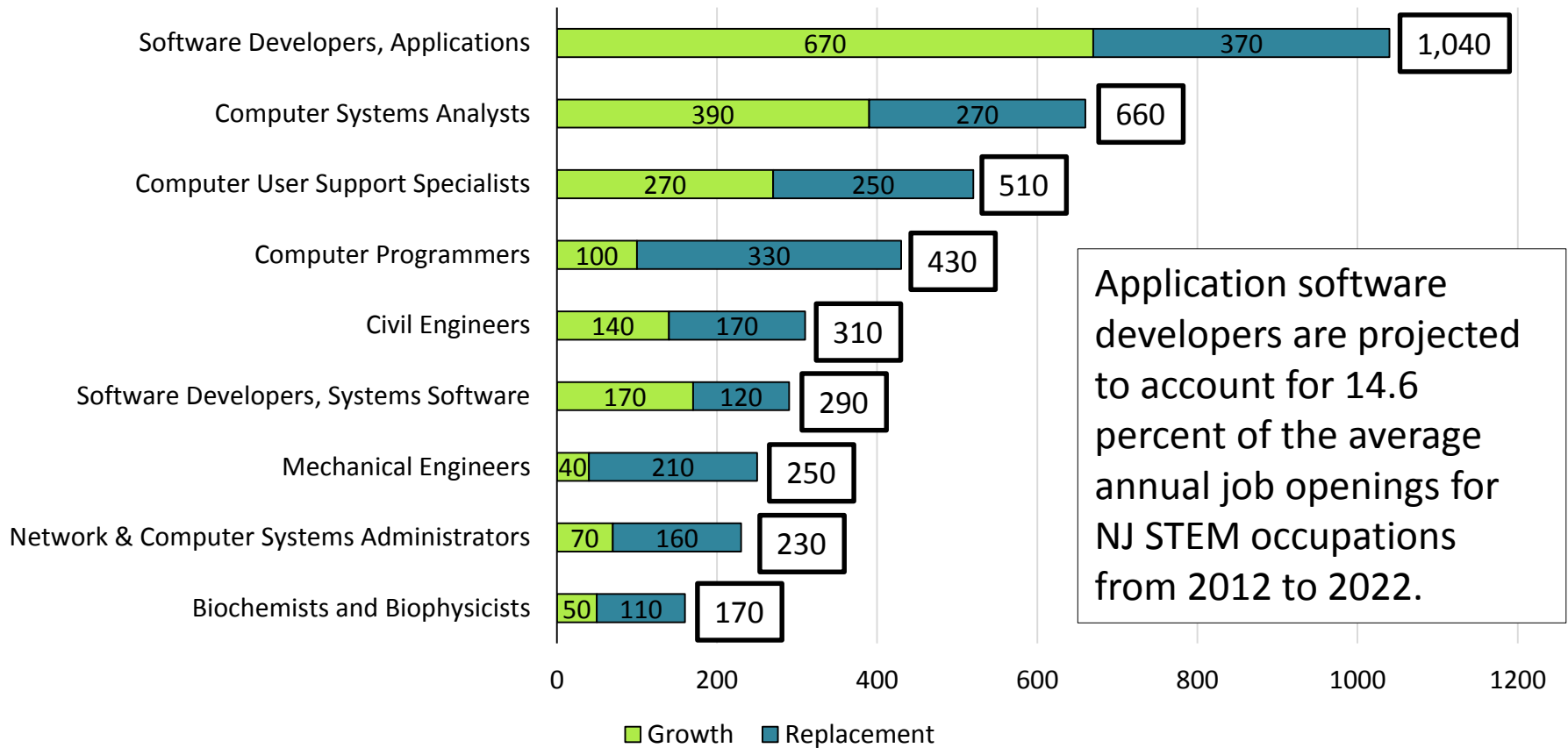
NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER NJ DETAILED OCCUPATIONAL EMPLOYMENT PROJECTIONS 2012-2022

Occupational Title	Employment				Average Annual		
	Actual 2012	Projected 2022	Change 2012-2022		Job Openings		
			Number	Percent	Total	Growth	Replacement
Total, All Occupations	4,149,400	4,462,550	313,150	7.5	131,470	34,560	96,910
STEM Occupations	218,550	246,000	27,450	12.6	7,120	2,760	4,360
Non-STEM Occupations	3,930,850	4,216,550	285,700	7.3	124,350	31,800	92,550
Computer and Mathematical Occupations	128,550	149,750	21,200	16.5	4,220	2,120	2,100
Architecture and Engineering Occupations	53,200	57,300	4,100	7.7	1,670	420	1,250
Life, Physical, and Social Science Occupations	36,800	38,950	2,150	5.8	1,230	220	1,010

- 38.8 percent of projected average annual job openings for STEM occupations will be due to growth over the ten year period from 2012 to 2022.
- STEM occupations are projected to experience a 12.6 percent employment growth by 2022.

NEW JERSEY TECHNOLOGY INDUSTRY CLUSTER PROJECTED ANNUAL AVERAGE OPENINGS FOR STEM OCCUPATIONS

2012-2022 Projected Annual Average Job Openings



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LABOR AND WORKFORCE DEVELOPMENT
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