

New Jersey's **CONSTRUCTION & UTILITIES** Industry Cluster

Prepared By:
New Jersey Department of Labor
& Workforce Development
Office of Research & Information
Bureau of Labor Market Information
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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 CONSTRUCTION AND UTILITIES MEANS TO NEW JERSEY

Identify the types of industries and establishments that make up the construction/utilities 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 construction and utilities industry cluster and provide an outlook for employment into the future



NEW JERSEY CONSTRUCTION & UTILITIES INDUSTRY CLUSTER

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)

CONSTRUCTION

2361 Residential Building Construction

2362 Nonresidential Building Construction

2371 Utility System Construction

2373 Highway, Street, and Bridge Construction

2381 Foundation, Structure, & Building Exterior Contractors

2382 Building Equipment Contractors

2383 Building Finishing Contractors

2389 Other Specialty Trade Contractors

UTILITIES

2211 Electric Power Generation, Transmission & Distribution

2212 Natural Gas Distribution

2213 Water, Sewage and Other Systems



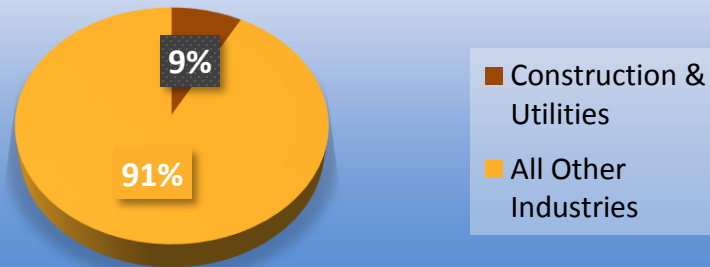
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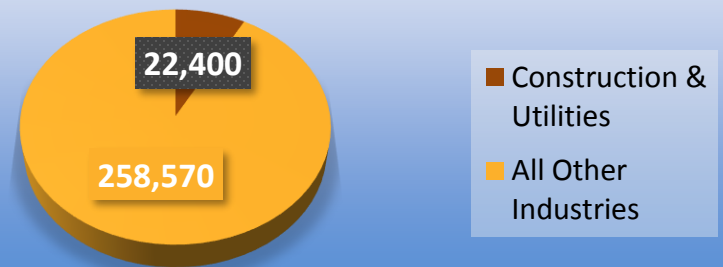
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CONSTRUCTION & UTILITIES AS A WHOLE IN 2016

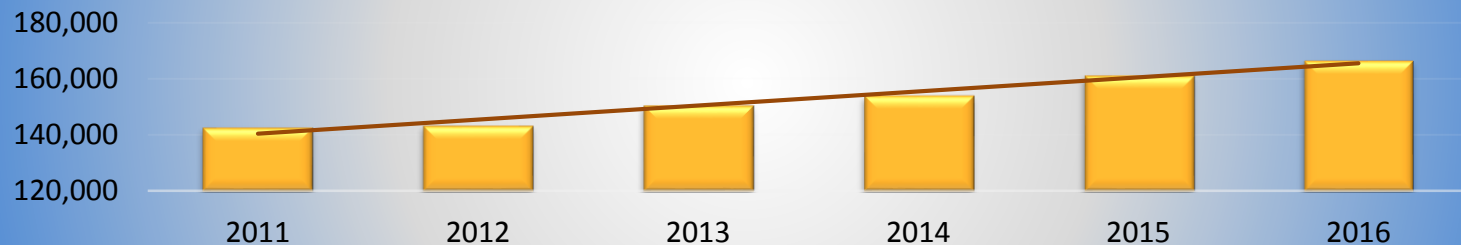
**Construction & Utilities
combined make up 8.7% of
our State's establishments**



**Construction & Utilities
have a total of 22,400
establishments in N.J.**



Construction & Utilities Employment



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

CONSTRUCTION INDUSTRY CLUSTER: OVERVIEW



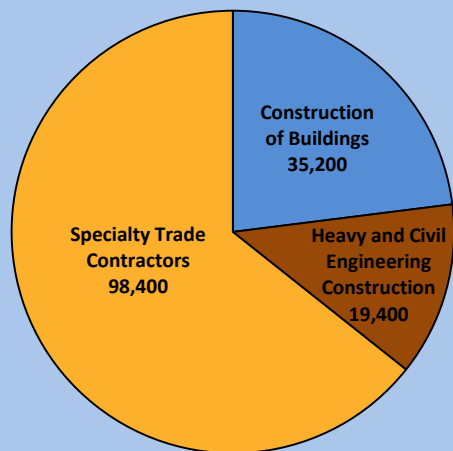
NEW JERSEY CONSTRUCTION OVERVIEW

- The construction industry is divided into 3 components:
 - Specialty Trade Contractors
 - Construction of Buildings
 - Heavy and Civil Engineering
- In 2016, New Jersey's Construction industry averaged 152,380 total employment. An increase of 5,350 (+3.6%) jobs from 2015's average.
- An estimated 119,340 people were employed in occupations classified as construction and extraction across the state in 2016.
- In 2016, the construction industry's average salary was \$68,760.

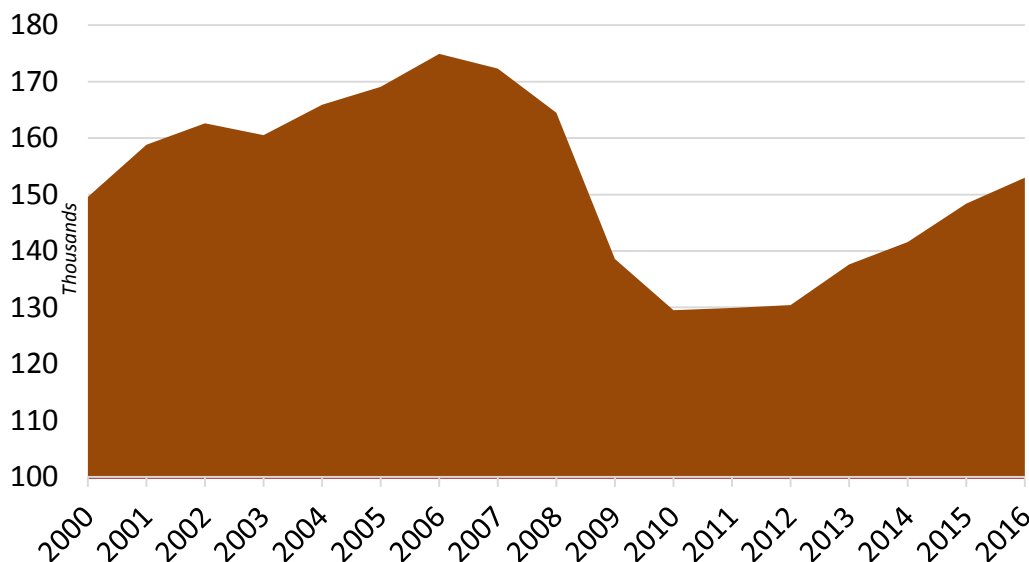


2016 CONSTRUCTION INDUSTRY EMPLOYMENT

- In 2016, specialty trade contractors made up nearly two-thirds of construction industry employment; 23 percent construction of buildings; and 12.7 percent heavy and civil engineering.



- Over the past 10 years (2006-2016) the construction industry had an overall decline of 21,900 jobs, and hit its peak in 2006 with 174,900.



- However, from 2011 – 2016, construction saw an increase of 23,100 (3.3% per year).



UTILITIES INDUSTRY CLUSTER: OVERVIEW



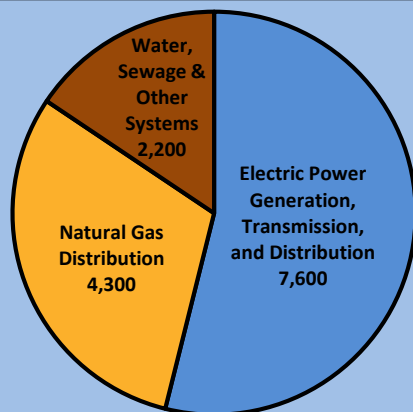
NEW JERSEY UTILITIES OVERVIEW

- ◆ Utilities encompasses a wide range of subcategories in regards to generation of our electricity. Utilities has multiple classifications of establishments that produce electricity such as fossil fuel, nuclear, solar, and wind. The NAICS (North American Industry Classification System) excludes a focus in waste management from this sector's employment.
- ◆ The average utility industry salary was \$118,630 in 2016 increasing \$2,370 (2.0%) from 2015.
- ◆ The utilities sector has very few establishments (360 units), which only account for .14 percent of the overall units in New Jersey.



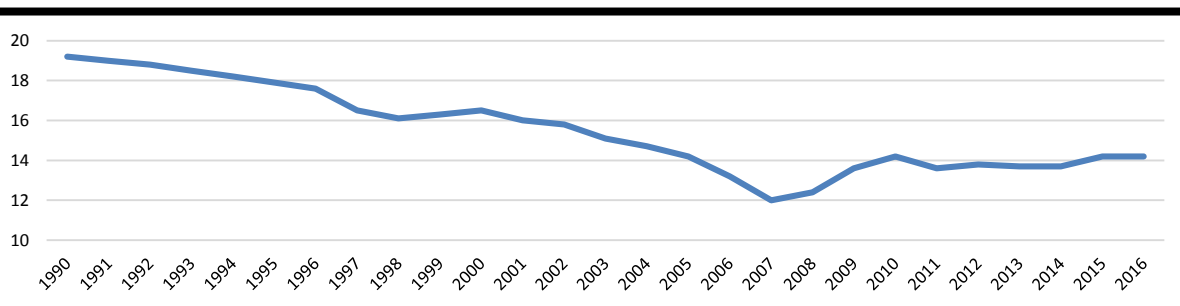
2016 UTILITIES INDUSTRY EMPLOYMENT

- Utilities is divided into three categories:
 - Electric Power Generation, Transmission, and Distribution.
 - Natural Gas Distribution.
 - Water, Sewage and Other Systems



- In 2016, Electric Power Generation, Transmission, and Distribution made up more than half (53.5%) of the utilities industry.

From 2006-2016, utilities industry employment has gained 1,000 jobs. The industry has recorded 14,200 jobs every 5 years (2005, 2010, 2015) and has now maintained those numbers in 2016. The lowest employment over the ten year period occurred in 2007 (2,200).



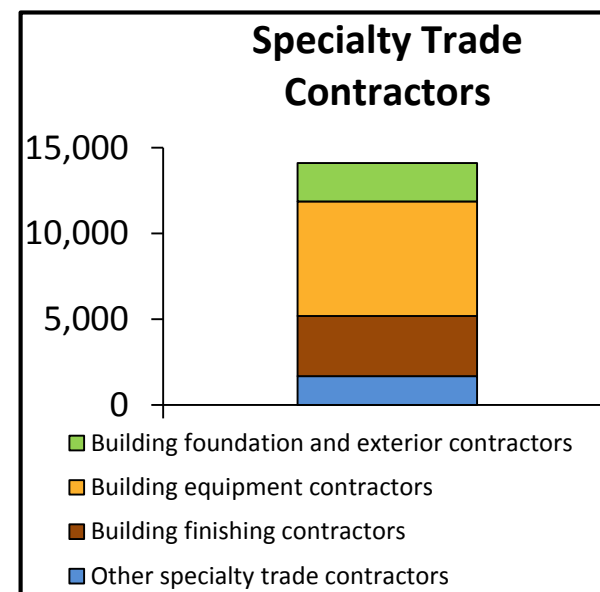
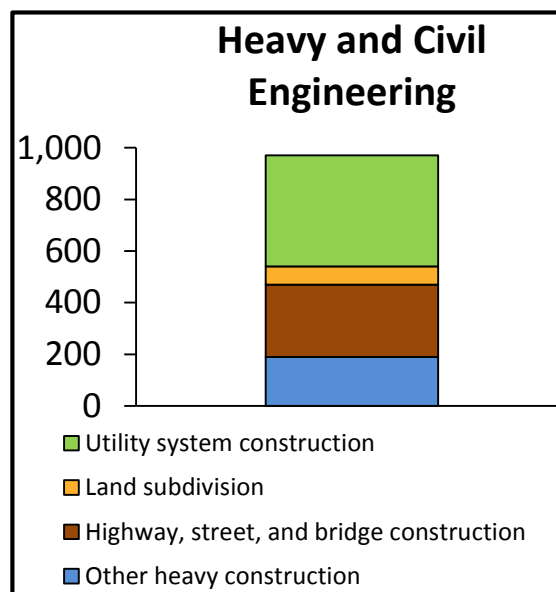
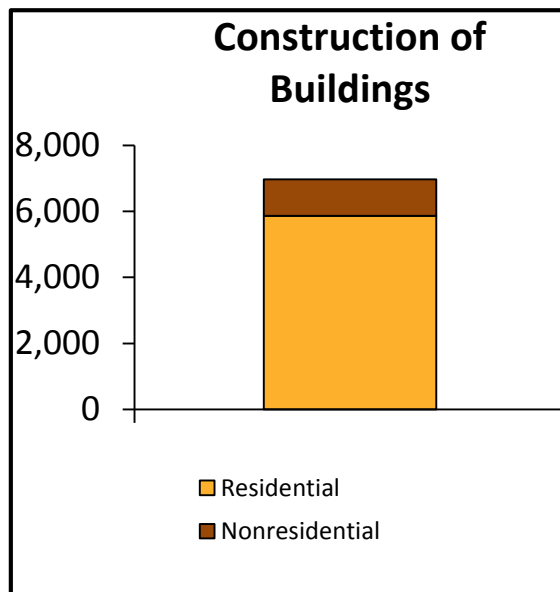
Prior to 2005 (1990-2004), utility employment never dropped below 14,700 (2004), but reached their highest numbers (since the Current Employment Statistics' records) in 1990 (19,200).



CONSTRUCTION INDUSTRY CLUSTER: EMPLOYMENT ANALYSIS



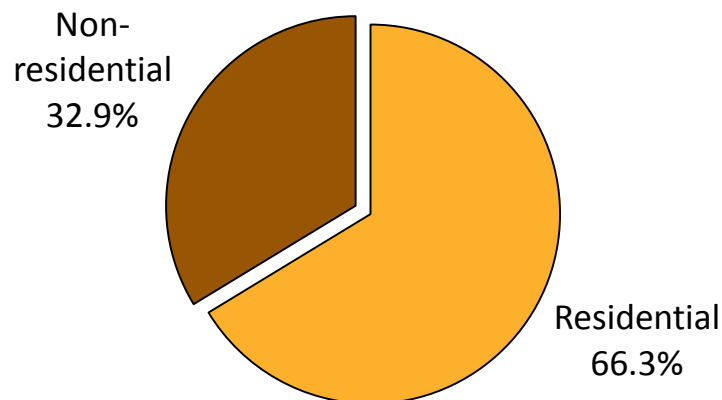
CONSTRUCTION ESTABLISHMENTS BY INDUSTRY



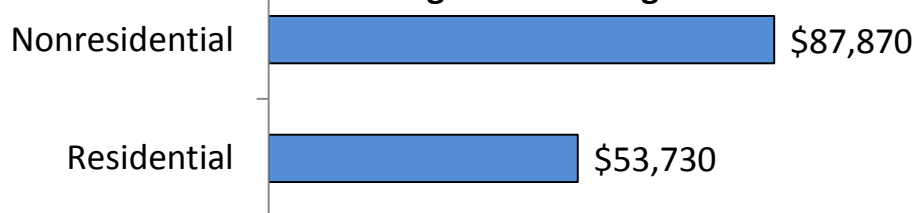
- In 2016, there were 22,050 establishments in the construction industry employing people in New Jersey.
- Over 84 percent of construction of building establishments perform work on residential buildings.
- Specialty trade contractors make up nearly two-thirds of all construction industry establishments.

CONSTRUCTION OF BUILDINGS INDUSTRY

2016 Employment



Average Annual Wage

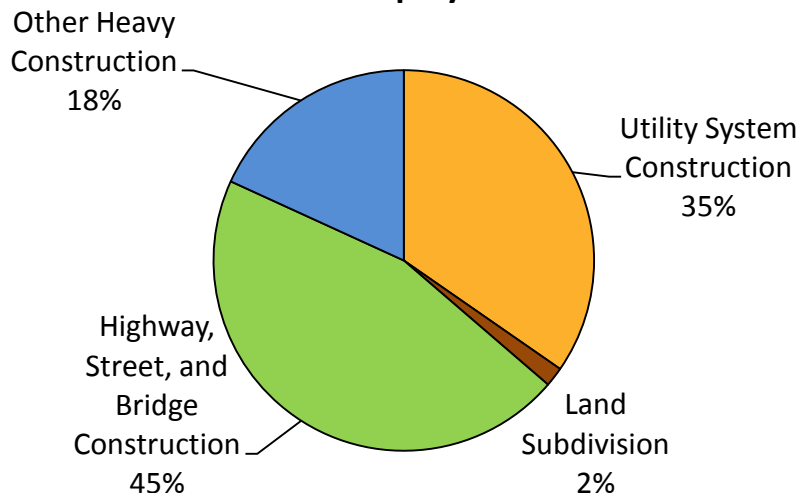


- Establishments in the Construction of Buildings industry decreased by more than 13 percent (-1,100 units) from 2006 to 2016.
- Construction of Buildings has decreased in its annual average employment by 7,670 jobs (-18.1%) from 2006 to 2016, but since 2010 has increased employment 20.8 percent (5,990 jobs).
- Jobholding increased 23.8 percent while the average weekly wage went from \$1,140 to \$1,250 during the five-year period 2011-2016.
- Construction of Buildings is made up of both non-residential and residential building. In 2016, Residential Building employed 23,030 while Non-residential Building employed only 11,700.

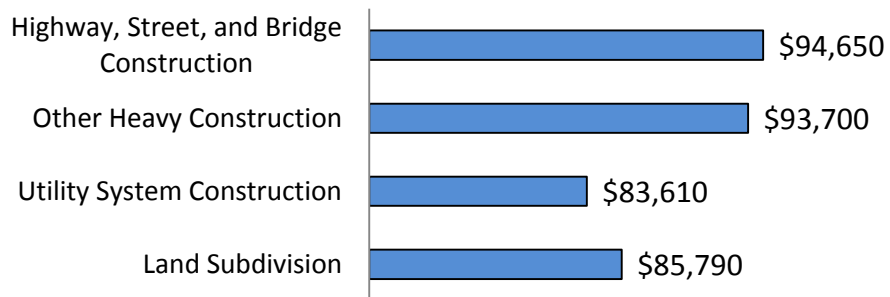


HEAVY AND CIVIL ENGINEERING CONSTRUCTION EMPLOYMENT

2016 Employment



2016 Average Annual Wage

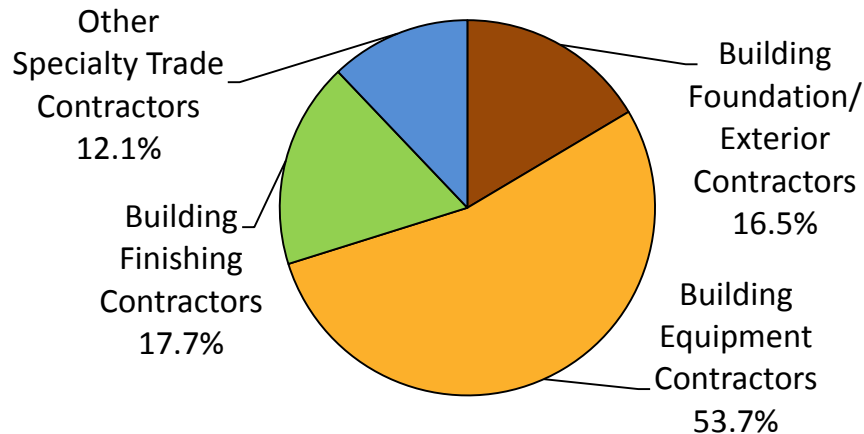


- From 2011 to 2016, Heavy and Civil Engineering establishments decreased by -5.3 percent or 50.
- Annual average employment increased by approximately 16.3 percent (2,700 jobs) since 2010.
- Land Subdivision lost almost 1/3 of its employment (-30.1%, or -140 jobs) from 2010.
- Payroll employment increased by 12.8 percent and the average weekly wage increased from \$1,540 to \$1,740 over the five-year period.
- 2016 employment: Highway, Street, and Bridge Construction (8,790), Utility System (6,690), other Heavy Construction (3,510), and Land Subdivision (320).

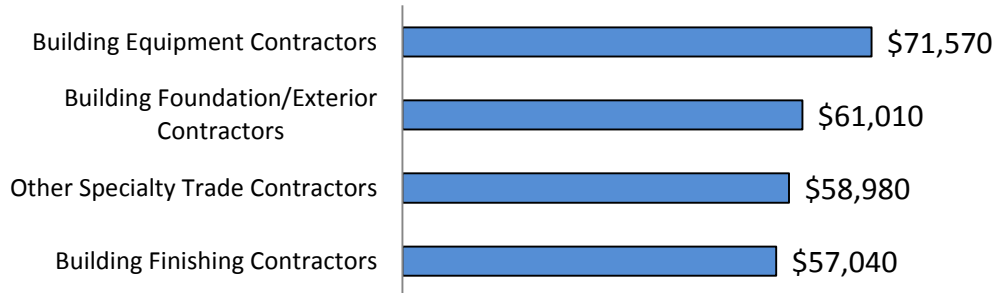


SPECIALTY TRADE CONTRACTORS

2016 Employment



2016 Average Annual Wage



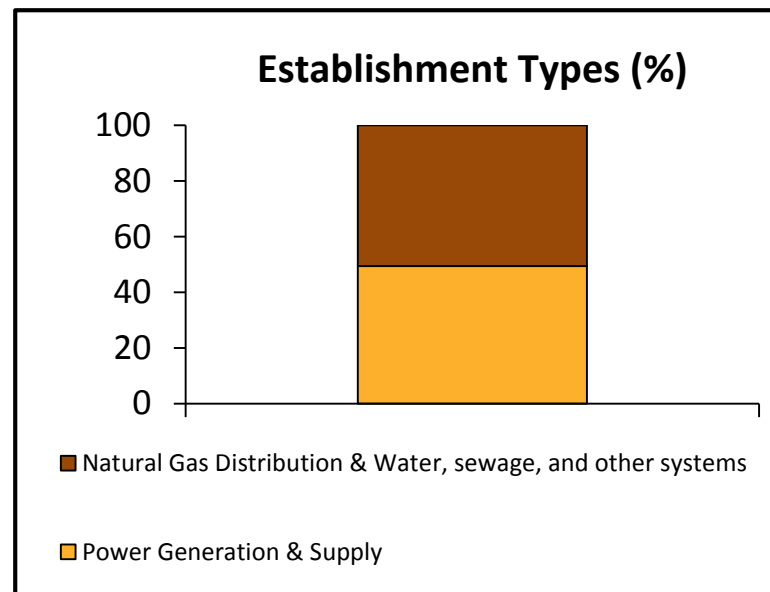
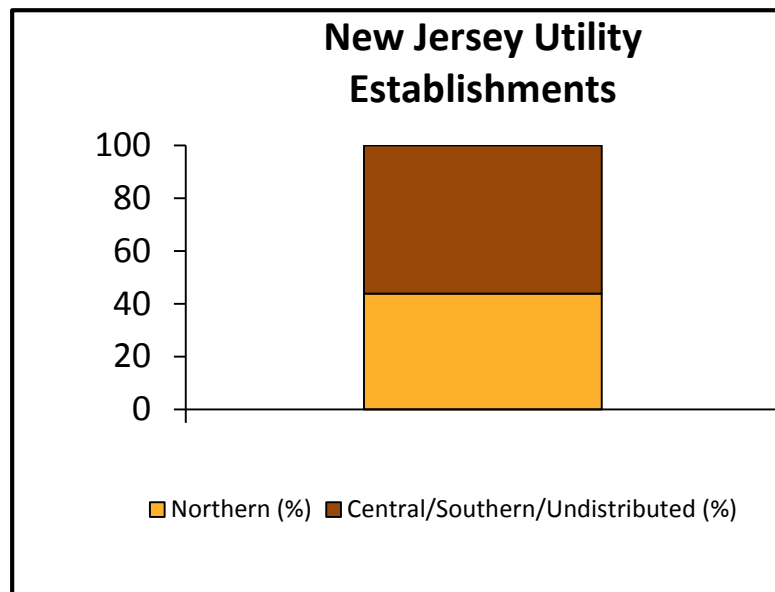
- From 2011 to 2016, Specialty Trade Contractors gained in its annual average employment (16.7% or 14,040 jobs).
- Establishments decreased by 920 or -6.1 percent, but gained a significant percent of employment (16.7%).
- While establishments decreased and employment increased, the average yearly wages also increased from \$58,820 (2011) to \$65,730 (2016) during the five-year period.
- Specialty Trade Contractors employed 98,350 in 2016. Building Equipment Contractors employed the most (52,820), then Building Finishing Contractors (17,450), Building Foundation/Exterior Contractors (16,190), and other Specialty Trade Contractors (11,900).



UTILITIES INDUSTRY CLUSTER: EMPLOYMENT ANALYSIS

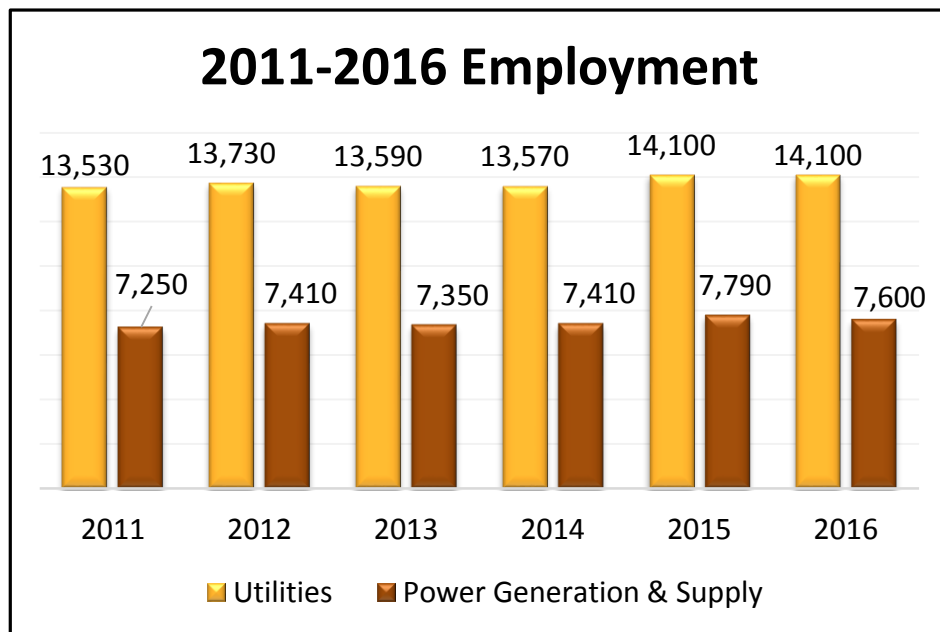


UTILITY ESTABLISHMENTS BY INDUSTRY

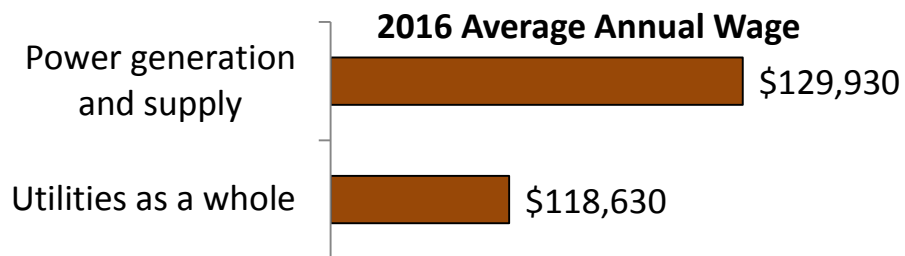


- In 2016, there were roughly 360 establishments in the utility industry employing people of all ages, genders, races, and educational backgrounds in New Jersey.
- Nearly half of utility establishments come from power generation and supply.
- Approximately 43.9 percent of establishments are located in the Northern New Jersey region.

UTILITY INDUSTRY EMPLOYMENT 2011-2016



- Establishments in the utility industry increased by an estimated 11.6 percent from 2011 to 2016.
- Utility has seen a slight increase in its annual average employment by 4.2 percent (570 jobs) during this five-year period. However, minimal change 2015 to 2016 maintaining near average employment.
- During the five-year period of 2011-2016, the utility industry has seen an increase of 11.7 percent in average weekly earnings from \$2,040 to \$2,280 a week.
- Power generation and supply saw an employment increase of 4.9 percent (360) from 2011-2016. This sector accounted for more than half of 2016's utility industry employment.



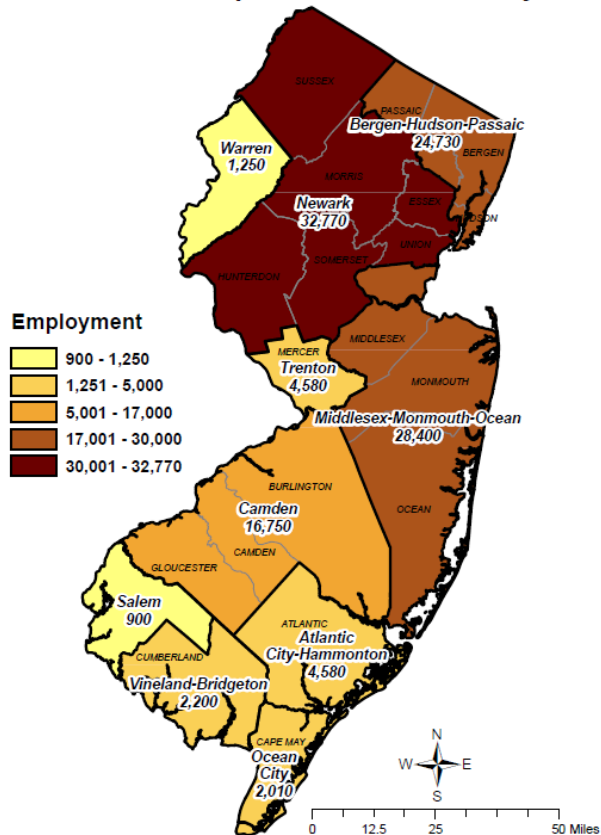
CONSTRUCTION INDUSTRY CLUSTER: OCCUPATIONAL ANALYSIS



EMPLOYMENT IN LABOR AREA

CONSTRUCTION OCCUPATIONS IN NEW JERSEY, 2016

*Employment by Labor Area
Construction Occupations in New Jersey, 2016*

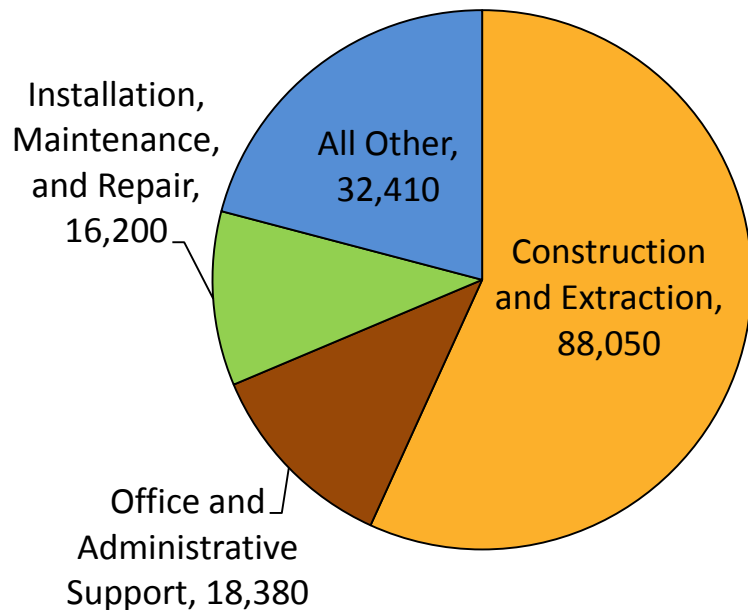


LABOR AREA	2016 CONSTRUCTION EMPLOYMENT
Newark	32,770
Middlesex-Monmouth-Ocean	28,400
Bergen-Hudson-Passaic	24,730
Camden	16,750
Trenton	4,580
Atlantic City / Hammonton	4,580
Vineland / Bridgeton	2,200
Ocean City	2,010
Warren	1,250
Salem	900



CONSTRUCTION AND EXTRACTION OCCUPATIONS MAKE UP MORE THAN HALF OF THE CONSTRUCTION INDUSTRY

2016 Employment by Major Occupational Group



Slightly over fifty-six percent of construction employees worked in Construction and Extraction Occupations.

Construction Laborers is the top occupation in this group.

18,810 Employment - \$50,500 Average Salary

The second largest occupational group in construction is Office and Administrative Support Occupations (11.9%).

General Office Clerks top this category for employment, but holds less employment than the third largest group.

6,230 Employment - \$33,520 Average Salary

The third largest is Installation, Maintenance, and Repair (10.4%).

Heating, Air Conditioning, and Refrigeration Mechanics and Installers have the largest employment in this group.

7,190 Employment - \$57,450 Average Salary

The top three occupational groups make up nearly 80 percent of employment in the construction industry sector.



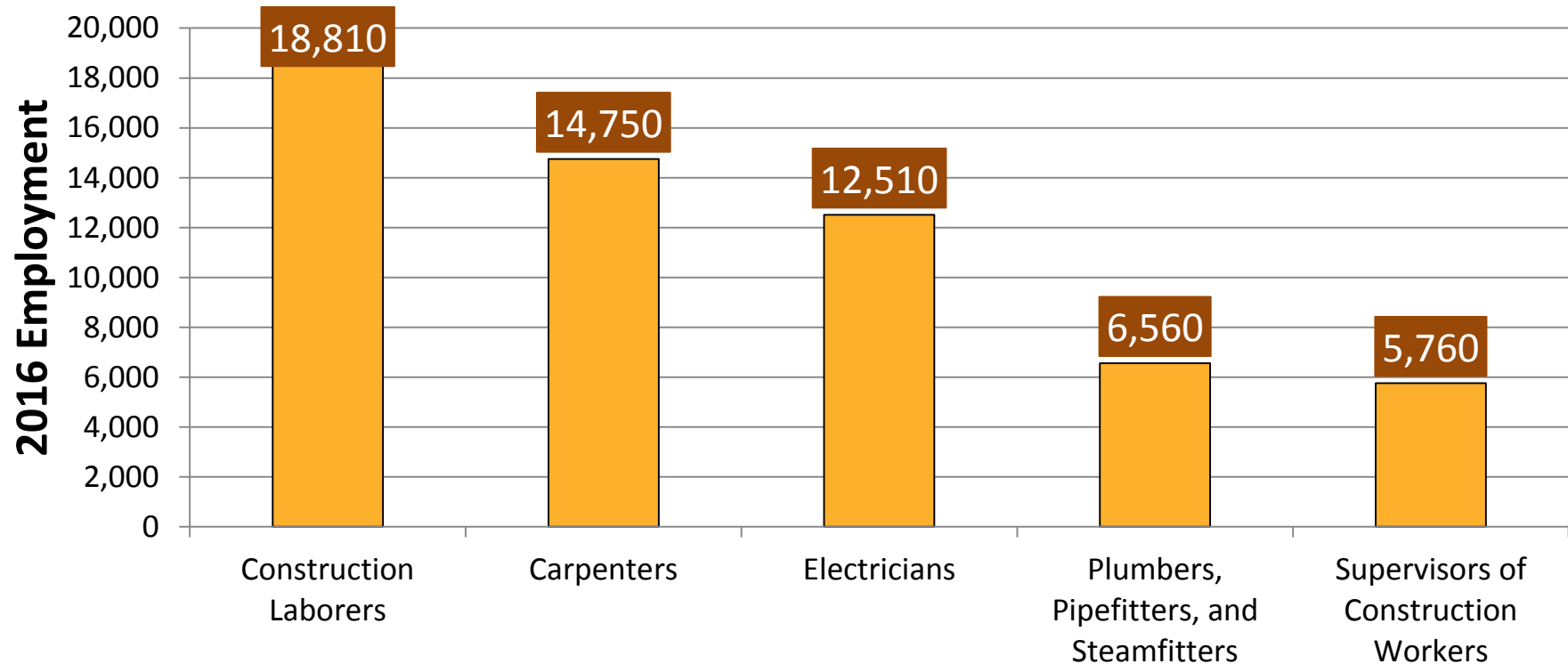
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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey

CONSTRUCTION AND EXTRACTION OCCUPATIONS WITH THE MOST EMPLOYMENT



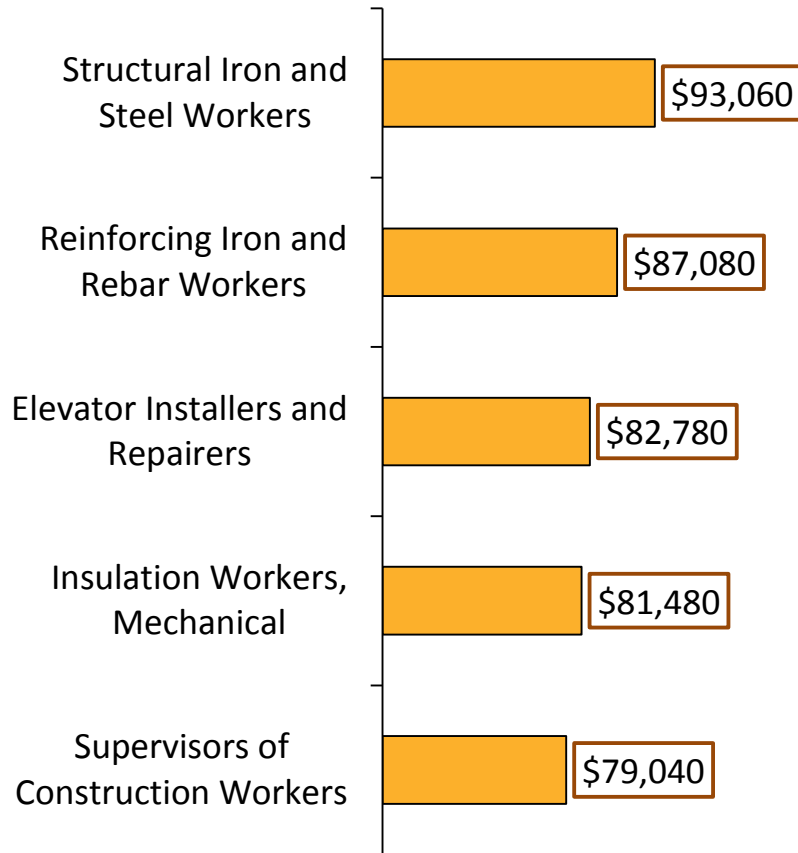
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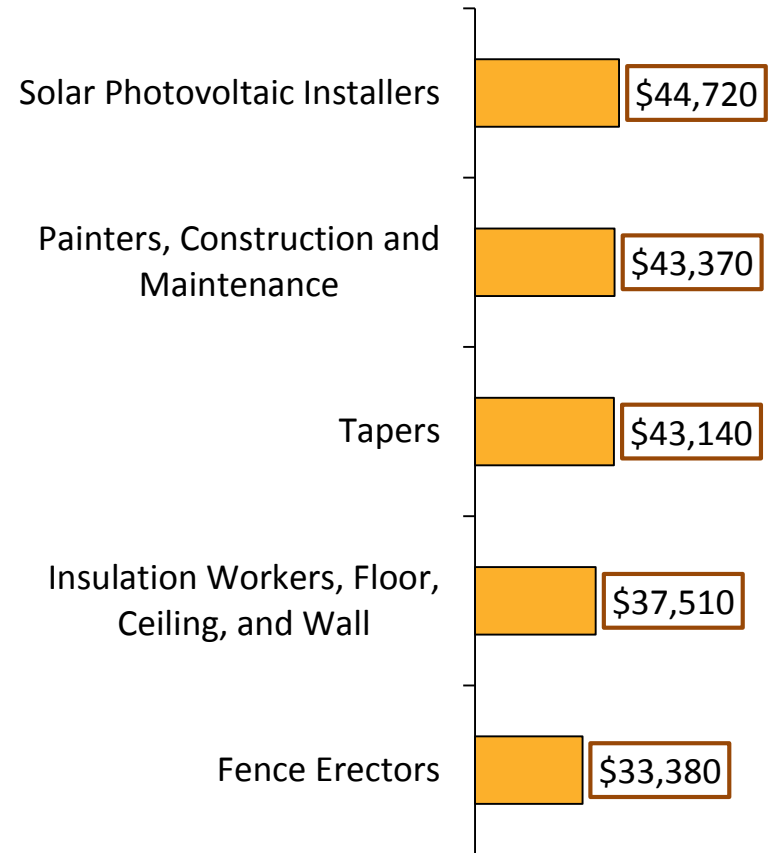
Source: NJ Department of Labor & Workforce
Development, Occupational Employment
Statistics Survey

AVERAGE ANNUAL SALARIES FOR CONSTRUCTION AND EXTRACTION OCCUPATIONS, 2016

Higher End Average Annual Salaries



Lower End Average Annual Salary



TOP 20 CONSTRUCTION OCCUPATIONS WITH THE MOST EMPLOYMENT IN NJ, 2016

SOC Code	Occupation	Employment	Average Wage	Education Requirement
47-2061	Construction Laborers	18,810	\$50,500	No formal educational credential
47-2031	Carpenters	14,750	\$60,510	High school diploma or equivalent
47-2111	Electricians	12,510	\$71,720	High school diploma or equivalent
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	7,190	\$57,450	Postsecondary nondegree award
47-2152	Plumbers, Pipefitters, and Steamfitters	6,560	\$70,050	High school diploma or equivalent
43-9061	Office Clerks, General	6,230	\$33,520	High school diploma or equivalent
47-1011	First-Line Supervisors of Construction Trades and Extraction Work	5,760	\$79,040	High school diploma or equivalent
11-9021	Construction Managers	4,170	\$144,190	Bachelor's degree
43-3031	Bookkeeping, Accounting, and Auditing Clerks	3,880	\$47,100	Some college, no degree
13-1051	Cost Estimators	3,280	\$73,570	Bachelor's degree
47-2141	Painters, Construction and Maintenance	3,250	\$43,370	No formal educational credential
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical,	3,080	\$34,730	High school diploma or equivalent
47-2073	Operating Engineers and Other Construction Equipment Operators	3,000	\$76,860	High school diploma or equivalent
47-2051	Cement Masons and Concrete Finishers	2,730	\$57,950	No formal educational credential
53-3032	Heavy and Tractor-Trailer Truck Drivers	2,000	\$55,690	Postsecondary nondegree award
47-2211	Sheet Metal Workers	1,770	\$69,020	High school diploma or equivalent
47-2181	Roofers	1,680	\$59,510	No formal educational credential
41-4012	Sales Representatives, Wholesale and Manufacturing	1,640	\$82,720	High school diploma or equivalent
47-3013	Helpers--Electricians	1,630	\$32,910	High school diploma or equivalent
47-2021	Brickmasons and Blockmasons	1,440	\$63,150	High school diploma or equivalent

3/4 of the Top 20 Construction Occupations in NJ Require a High School Diploma or Less



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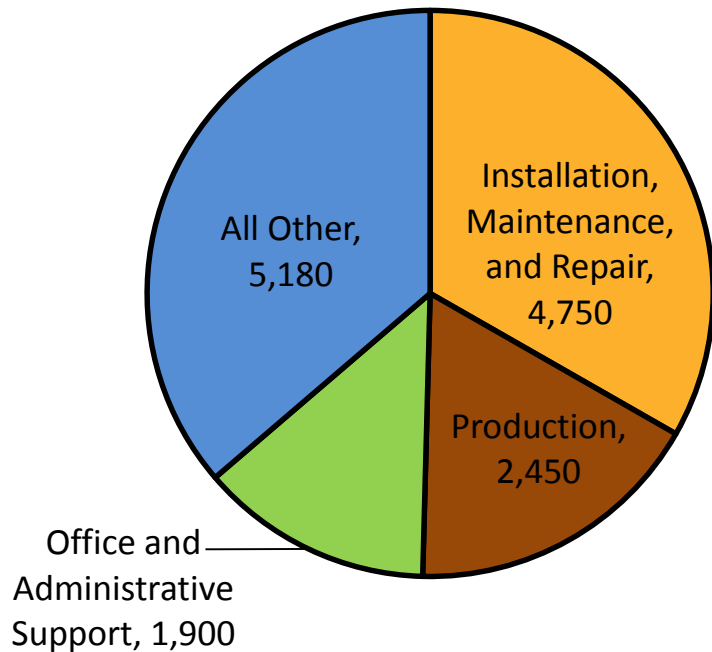
Source: NJ Department of Labor & Workforce
Development, Occupational Employment
Statistics Survey

UTILITIES INDUSTRY CLUSTER: OCCUPATIONAL ANALYSIS



INSTALLATION, MAINTENANCE AND REPAIR IS THE MAIN UTILITY OCCUPATIONAL GROUP HOLDING 33.3 PERCENT OF EMPLOYMENT

2016 Employment
by Major Occupational Group



Slightly over thirty-three percent of utility employees worked in installation, maintenance, and repair occupations.

Electrical Power-Line Installers and Repairers is the top occupation in this group.

990 Employment - \$94,980 Average Salary

The second largest occupational group in utilities is production occupations (17.2%).

Power Plant Operators is the top employment under this category.

570 Employment - \$85,910 Average Salary

The third largest is office and administrative support occupations (13.3%).

Utility Meter Readers have the largest employment in this group.

650 Employment - \$49,390 Average Salary

The top three occupational groups make up 63.7 percent of employment in the utilities industry sector.



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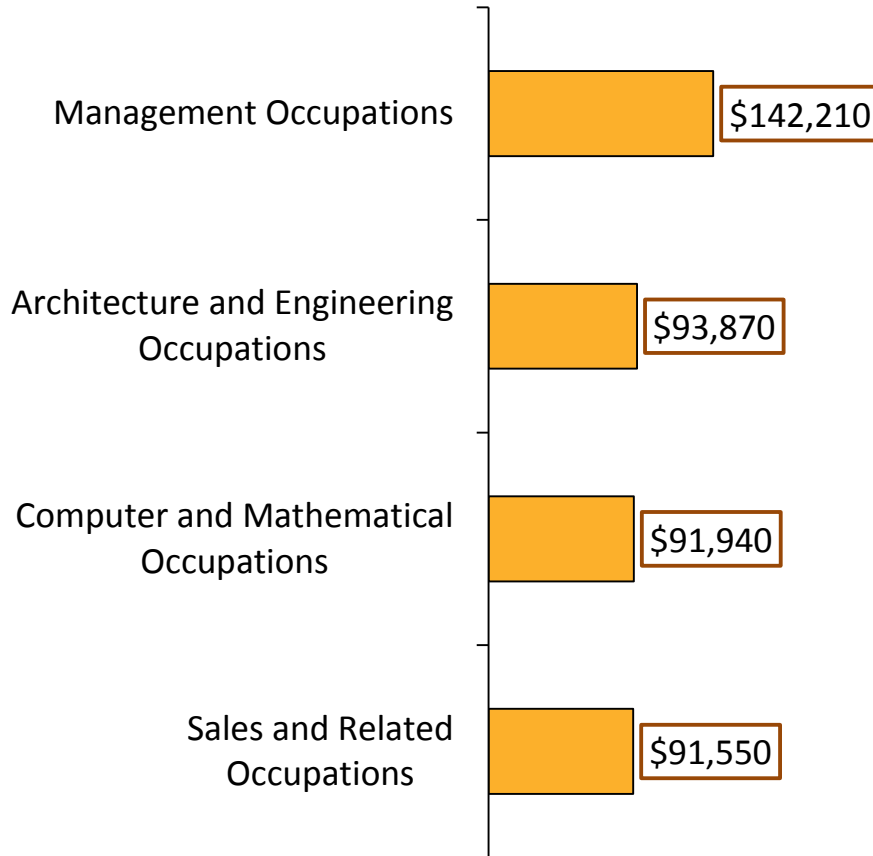


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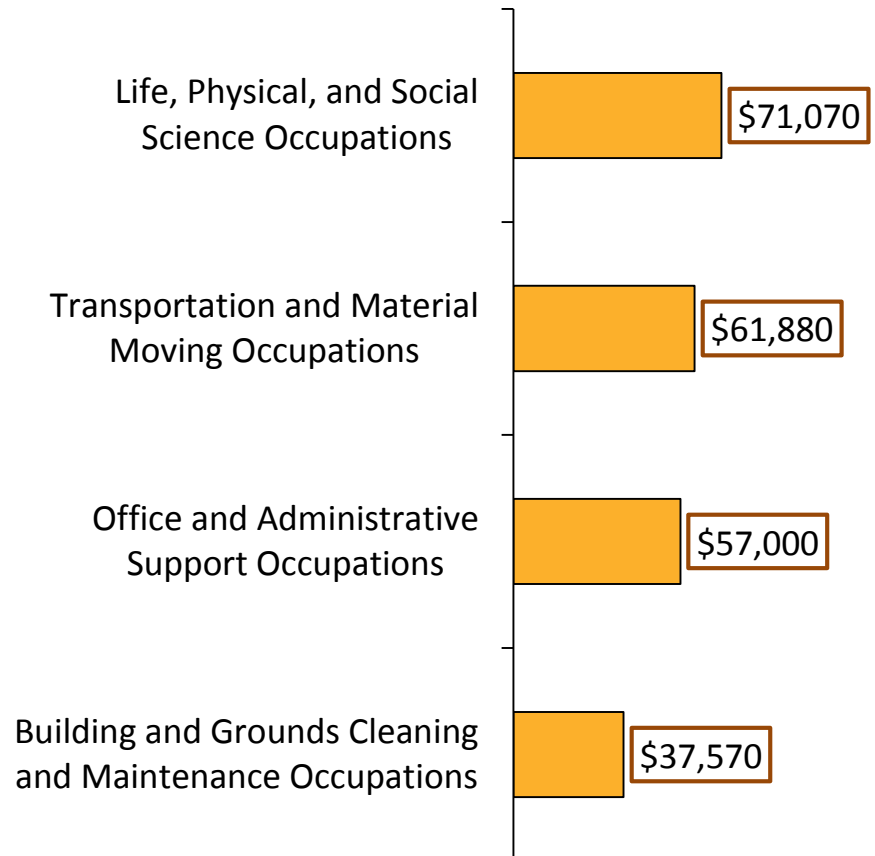
Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey

AVERAGE ANNUAL SALARY FOR UTILITIES, 2016

Higher End Average Annual Salaries

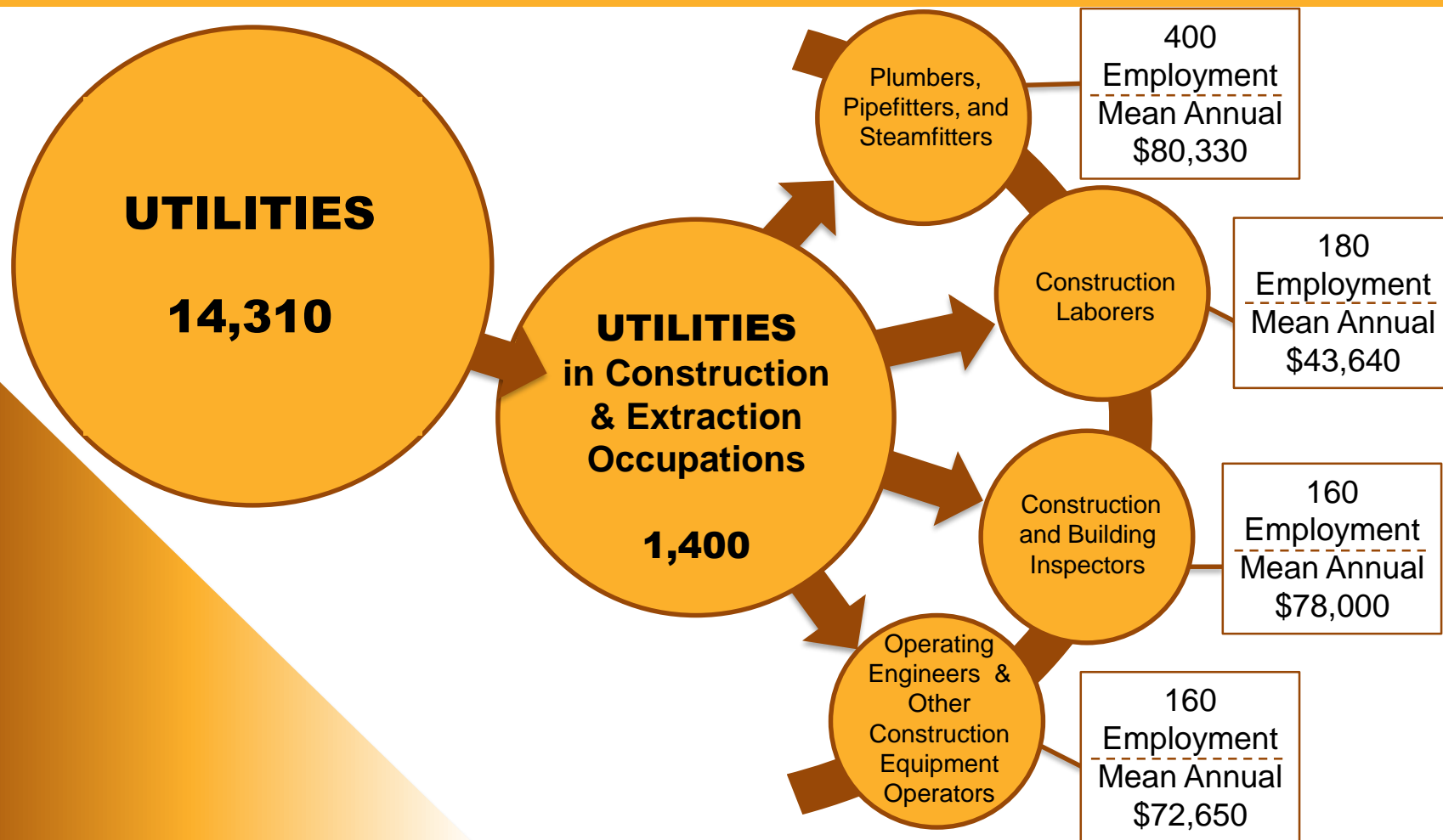


Lower End Average Annual Salary



*Occupational Codes does NOT have a separate coding aside from the NAICS. Information provided based off of Occupational Categories that hold Utility Occupations within.

UTILITY JOBS IN CONSTRUCTION AND EXTRACTION OCCUPATIONS



TOP 20 UTILITY OCCUPATIONS WITH THE MOST EMPLOYMENT IN NJ, 2016

SOC Code	Occupation	Employment	Average Wage	Education Requirement
49-9051	Electrical Power-Line Installers and Repairers	990	\$94,980	High school diploma or equivalent
43-5041	Meter Readers, Utilities	650	\$49,390	High school diploma or equivalent
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	620	\$94,320	High school diploma or equivalent
49-9071	Maintenance and Repair Workers, General	610	\$56,760	High school diploma or equivalent
49-9031	Home Appliance Repairers	570	\$62,260	High school diploma or equivalent
51-8013	Power Plant Operators	570	\$85,910	High school diploma or equivalent
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	550	\$72,600	Postsecondary nondegree award
49-9041	Industrial Machinery Mechanics	490	\$68,440	High school diploma or equivalent
51-1011	First-Line Supervisors of Production and Operating Workers	460	\$96,100	High school diploma or equivalent
47-2152	Plumbers, Pipefitters, and Steamfitters	400	\$80,330	High school diploma or equivalent
51-8031	Water and Wastewater Treatment Plant and System Operators	350	\$60,950	High school diploma or equivalent
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	290	\$84,950	Postsecondary nondegree award
43-9061	Office Clerks, General	250	\$48,890	High school diploma or equivalent
17-2071	Electrical Engineers	210	\$99,320	Bachelor's degree
43-4051	Customer Service Representatives	210	\$53,900	High school diploma or equivalent
47-2061	Construction Laborers	180	\$43,640	No formal educational credential
11-1021	General and Operations Managers	160	\$168,280	Bachelor's degree
17-3023	Electrical and Electronics Engineering Technicians	160	\$76,890	Associate's degree
47-2073	Operating Engineers and Other Construction Equipment Operators	160	\$72,650	High school diploma or equivalent
47-4011	Construction and Building Inspectors	160	\$78,000	High school diploma or equivalent

3/4 of the Top 20 Utility Occupations in NJ Require a High School Diploma or Less



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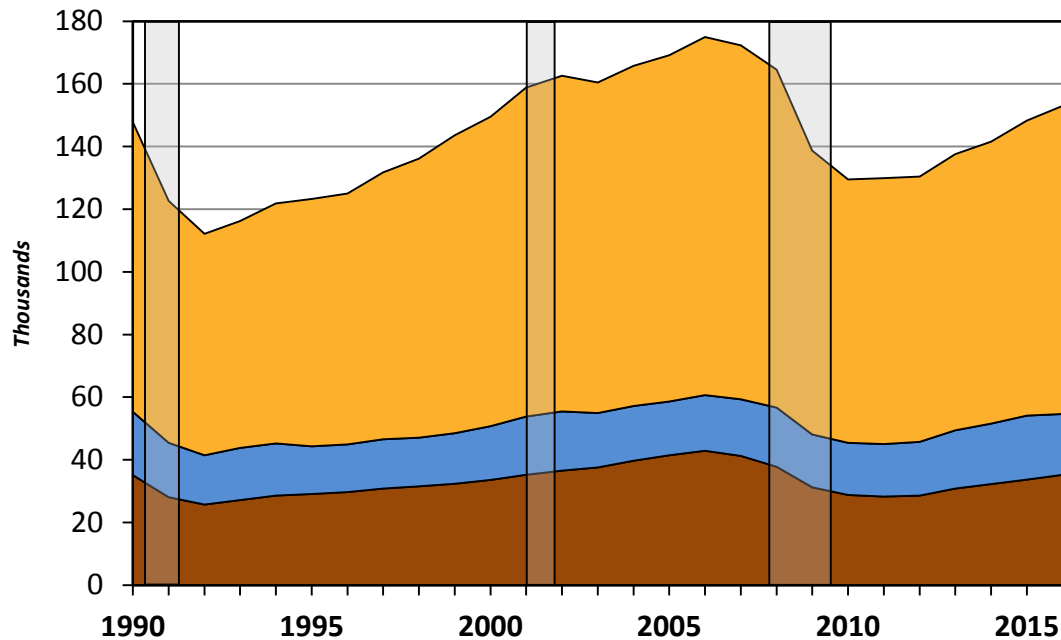
Source: NJ Department of Labor & Workforce
Development, Occupational Employment Statistics
Survey

NJ CONSTRUCTION INDUSTRY EMPLOYMENT



NJ CONSTRUCTION EMPLOYMENT BY INDUSTRY

**1990-2016 Construction Industry
Annual Employment Averages**



- Specialty Trade Contractors
- Heavy and Civil Engineering Construction
- Construction of Buildings

Shaded vertical bars indicate national recessionary periods as determined by the National Bureau of Economic Research (NBER)

- The construction industry has seen a significant employment decline in the last 10 years (2006-2016). Construction has seen an overall drop of 21,900 (-12.5%).
- However, in the past 5 years (2011-2016), construction has gained 23,100 employment (17.8%). Since 2010, construction has added jobs yearly, but has yet to reach its' 2006 peak of 174,900 (-26,900).
- Over the last year (2015-2016), construction experienced a 3.1 percent increase, adding 4,600 jobs. Since 2010, construction has seen positive growth with the largest increase over this period in 2012-2013 (7,200; 5.2%).

- The three construction subsectors have all increased from 2011-2016. Construction of Buildings has seen an increase of 6,900 (24.4%), Heavy and Civil Engineering has seen a 2,700 (16.2%) increase and Specialty Trade Contractors has seen a 13,500 (15.9%) increase.



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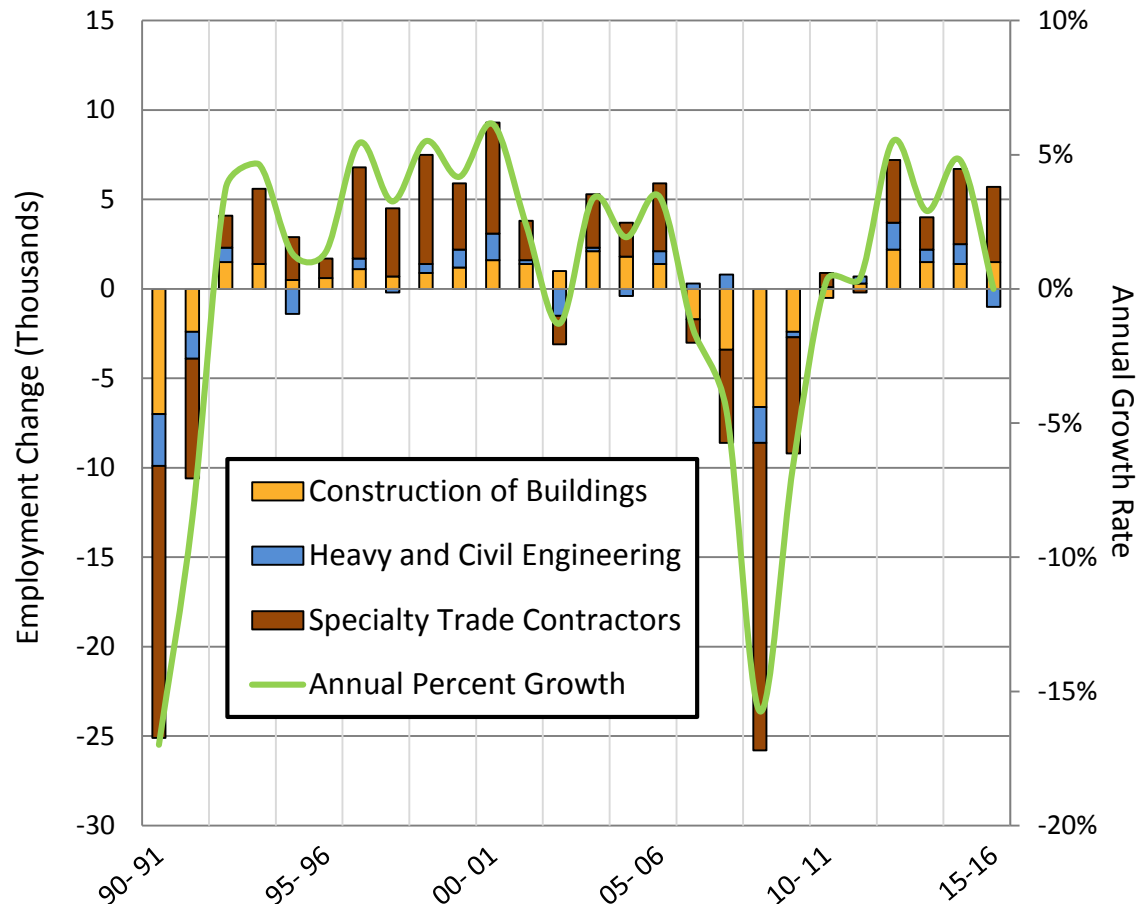


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Source: NJ Department of Labor & Workforce Development, Current Employment Statistics, Annual Averages

NJ CONSTRUCTION EMPLOYMENT BY INDUSTRY

EMPLOYMENT CHANGE 1990-2016



- From 2008 to 2009, construction experienced the largest total annual average employment decrease since 1990. A total of 25,800 jobs were lost, largely in part to steep declines in the specialty trade contractors industry (-17,200).

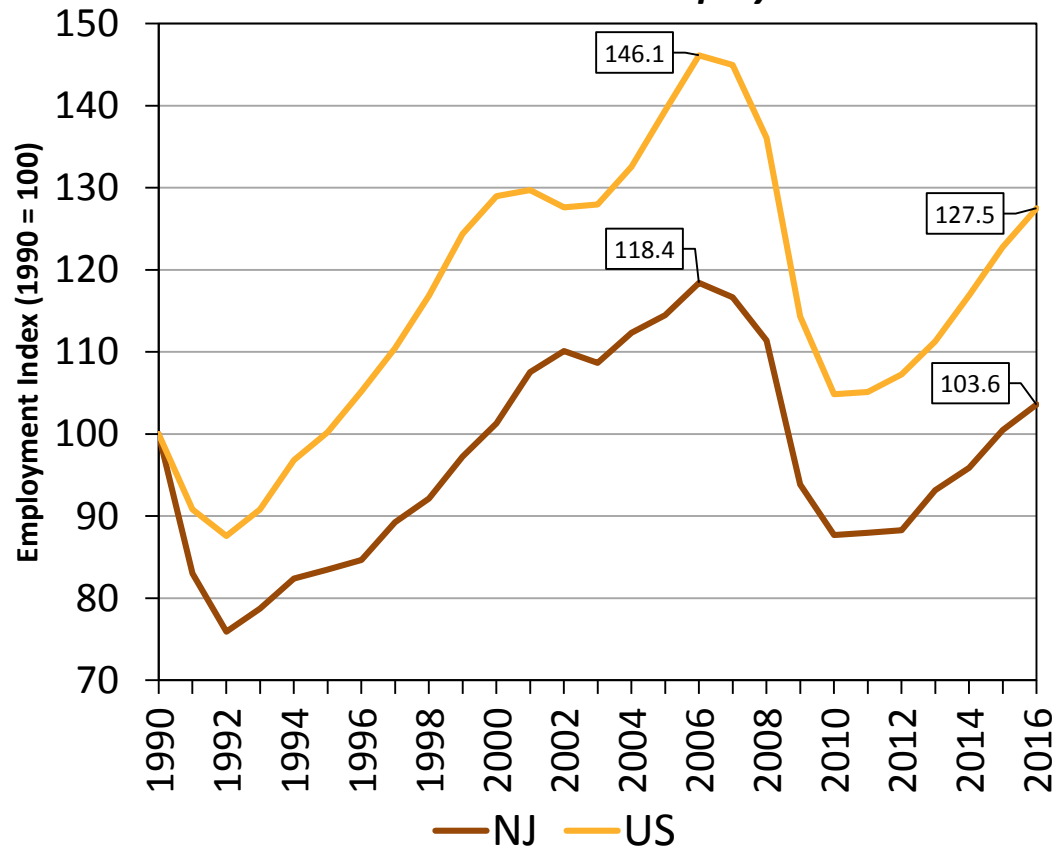
- For the fourth consecutive year, the construction industry experienced overall employment growth. However, one component of construction from 2015 to 2016 had a decrease in employment. Heavy civil engineering lost 1,000 jobs, specialty trade contractors added 4,200 jobs, and construction of buildings increased by 1,500 jobs.

- The recent recession caused a dip in employment over recent years, but the 22,600 jobs added over the last four years (2012 – 2016) is a sign of recovery.



NJ VS. US CONSTRUCTION EMPLOYMENT TRENDS SINCE 1990

NJ vs. US CONSTRUCTION
1990 – 2016 Annual Employment



- In 1992, the United States experienced the largest decline from the base year of 1990 (-12.4%). Since then, the United States has recovered to +27.5 percent above the base year.

- Following the same trend as the United States, New Jersey experienced its largest decline from the base year in 1992 (-24.1%), but eventually recovered and peaked in 2006 (+18.4%).

- In 2016, employment for New Jersey and the United States are both greater than the base year.

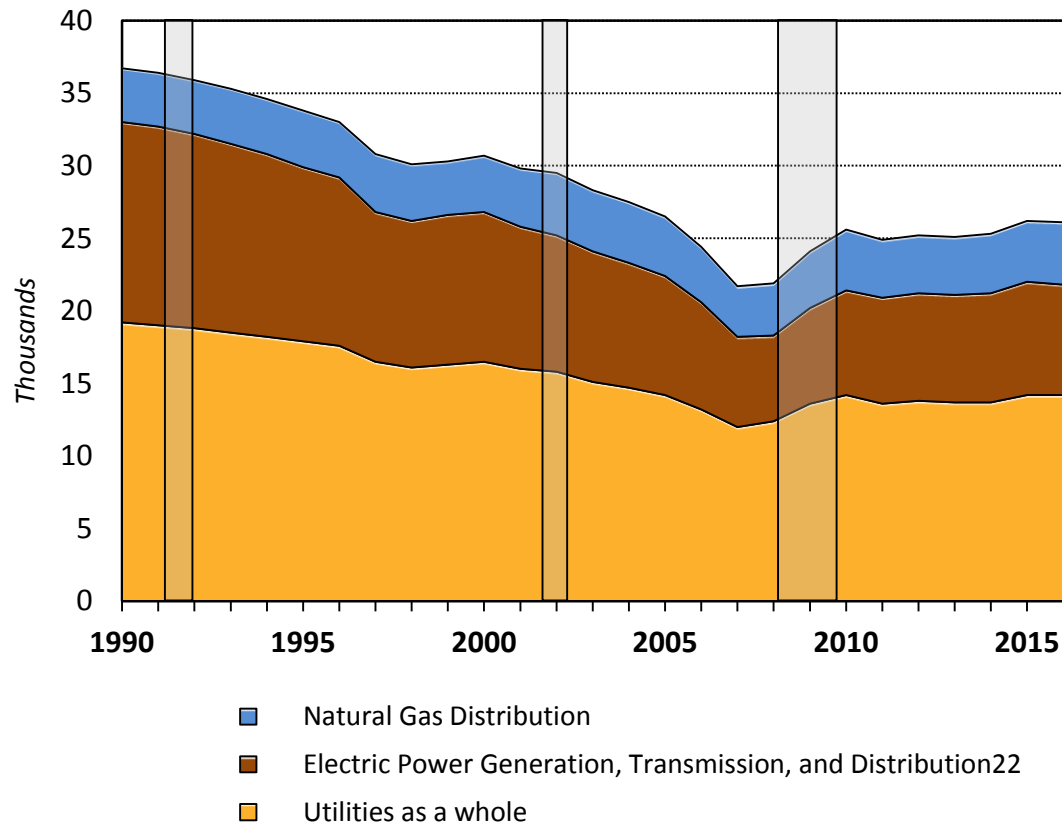


NJ UTILITY INDUSTRY EMPLOYMENT



NJ UTILITY EMPLOYMENT BY INDUSTRY

**1990-2016 Utility Industry
Annual Employment Averages**



- From 1990 to 2016, annual average utility employment has dropped by 5,000 jobs or approximately -26.0 percent.

- Since 2010, utility employment leveled out at 14,200 with a drop between 2011-2014 and bouncing back in 2015. 2016 employment has remained steady.

- Electric power generation, transmission, and distribution has seen an 4.1 percent increase between 2011-2016.

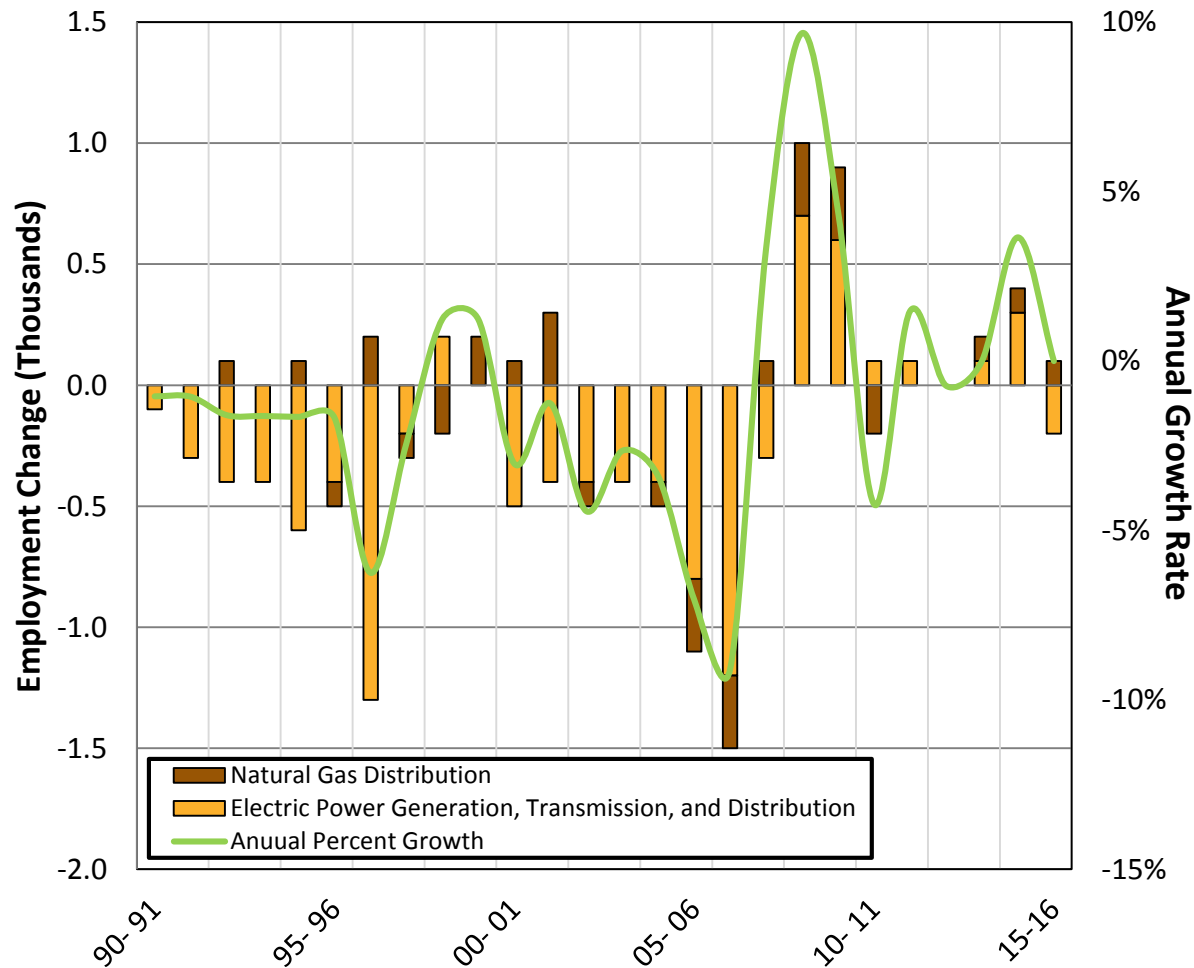
- From 2015 to 2016, utilities did not experience any change as a whole. However, natural gas distribution saw a 2.4 percent increase while electric power generation, transmission, and distribution saw a -2.5 percent decrease.

Shaded vertical bars indicate national recessionary periods as determined by the National Bureau of Economic Research (NBER)



NJ UTILITY EMPLOYMENT BY INDUSTRY

ANNUAL AVERAGE EMPLOYMENT CHANGE 1990-2016

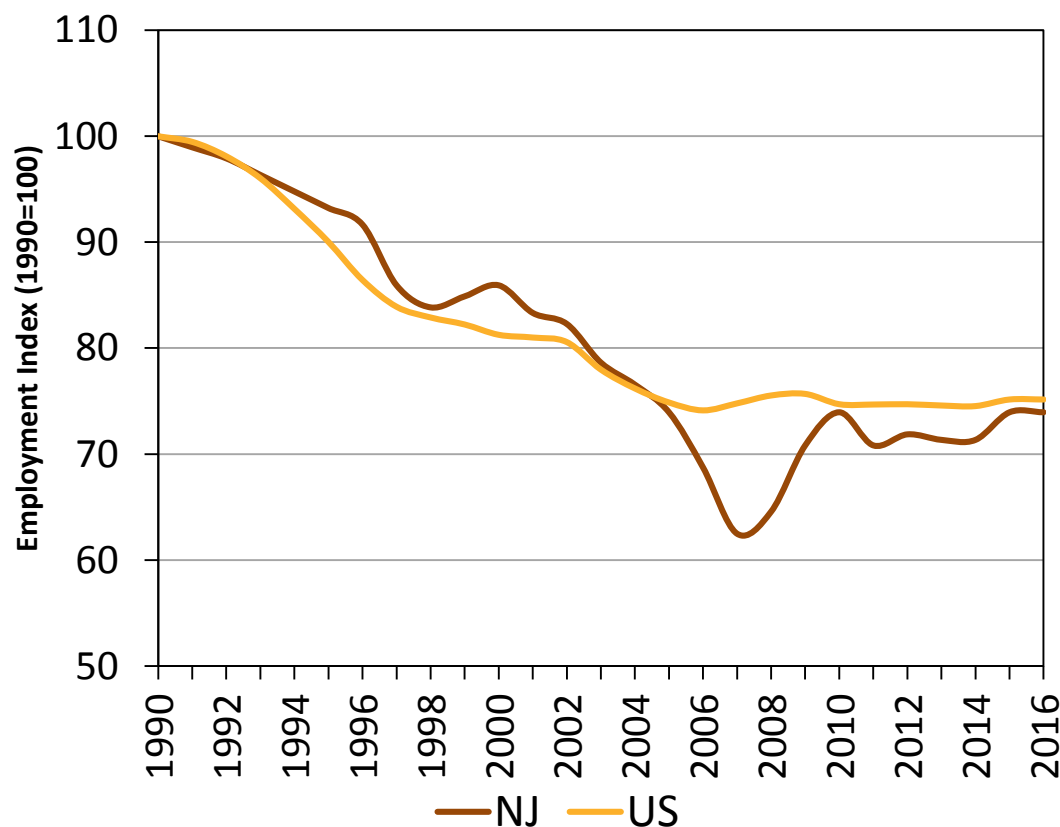


- From 2006 to 2007, utilities experienced the largest total annual average employment decrease since 1990. A total of 1,200 jobs were lost.
- From 2008 to 2009, utilities had their largest increase gaining the 1,200 jobs back.
- Utility employment peaked in 1990 with 19,200 then steadily declined through 1998 (16,100). A second decline took place from 2001 to 2007 (12,000).
- In the past 10 yrs. (2006-2016), utilities peak employment of 14,200 was hit in 2010, 2015 and 2016.
- The recent recession caused an increase in utility employment of 2,200 jobs between 2007-2010.



NJ VS. US UTILITY EMPLOYMENT TRENDS SINCE 1990

NJ vs. US UTILITY
1990 – 2016 Annual Employment



- During this period, both New Jersey and the United States showed peak employment in 1990.
- Since 1990, the US saw a significant drop of employment through 2005 at a greater rate than New Jersey until 2006, in which NJ's percentages dropped lower than the US.
- NJ saw a significant decline in employment going into 2006 (5.2%), but climbed back with 6.2 percent through 2009.
- In 2016, employment for New Jersey and the United States both showed steady employment with no change from 2015.



RESIDENTIAL BUILDING PERMITS




RESIDENTIAL HOUSING UNITS AUTHORIZED TO BE BUILT



In 2016, there were 26,793 housing units authorized for construction in New Jersey, representing a decrease of 12.3 percent over the 2015 year.



In 2014 to 2016, these units represented a value of more than 4 billion dollars year over year.



Hudson County issued the most residential building permits of any county since 2014.



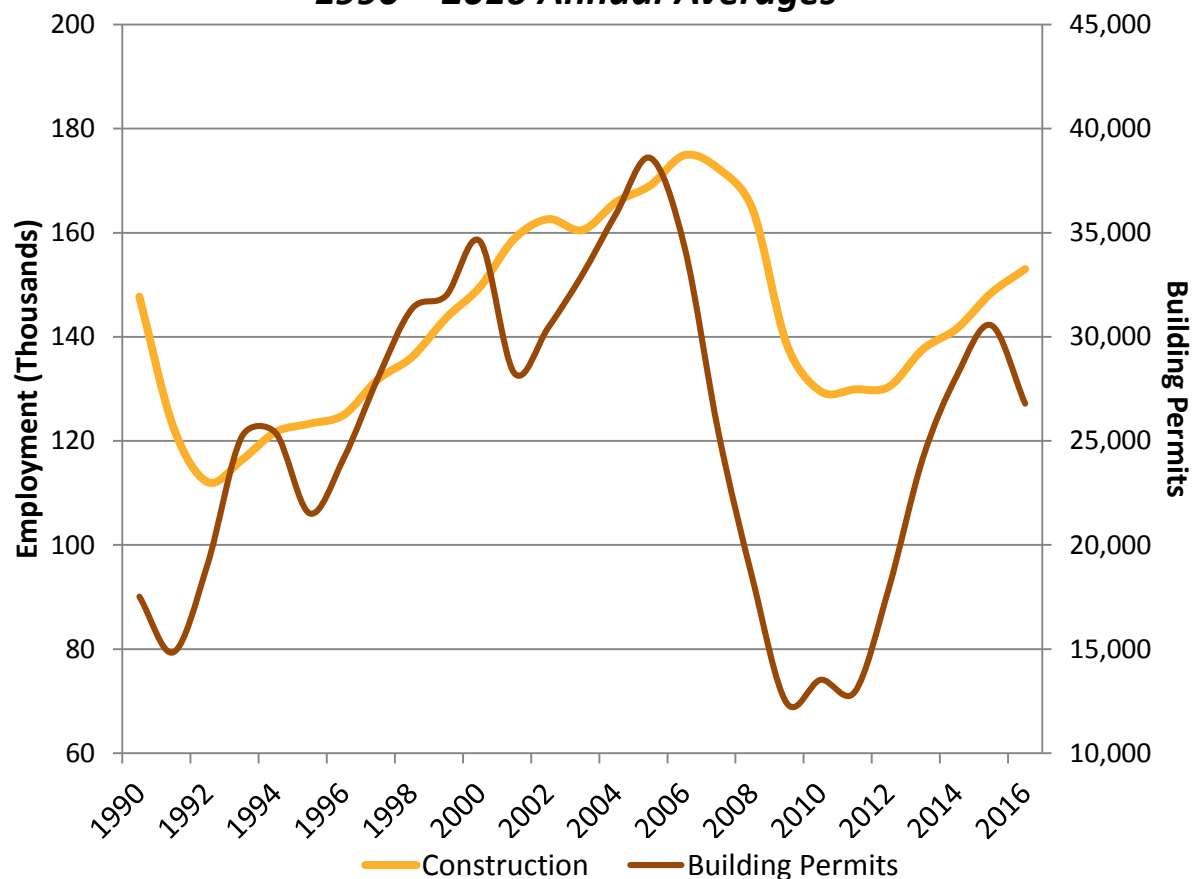
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Source: NJ Department of Labor & Workforce Development, U.S. Bureau of the Census, Manufacturing & Construction Division, Annual Residential Housing Units Authorized to be Built., 2016

CONSTRUCTION EMPLOYMENT AND BUILDING PERMITS 1990-2016

Construction Employment Vs. Building Permits
1990 – 2016 Annual Averages



- Building permits in New Jersey peaked at nearly **40,000** units in 2005, before experiencing a steady decline over the next four years.
- During the most recent years (2011-2016) construction employment gained 23,100 (17.3%) new jobs while permits more than doubled to 26,793 (106.9%, 13,841).
- From 1990 to 2016, the number of building permits issued annually have increased 52.9 percent, while construction employment has only increased 3.6 percent.



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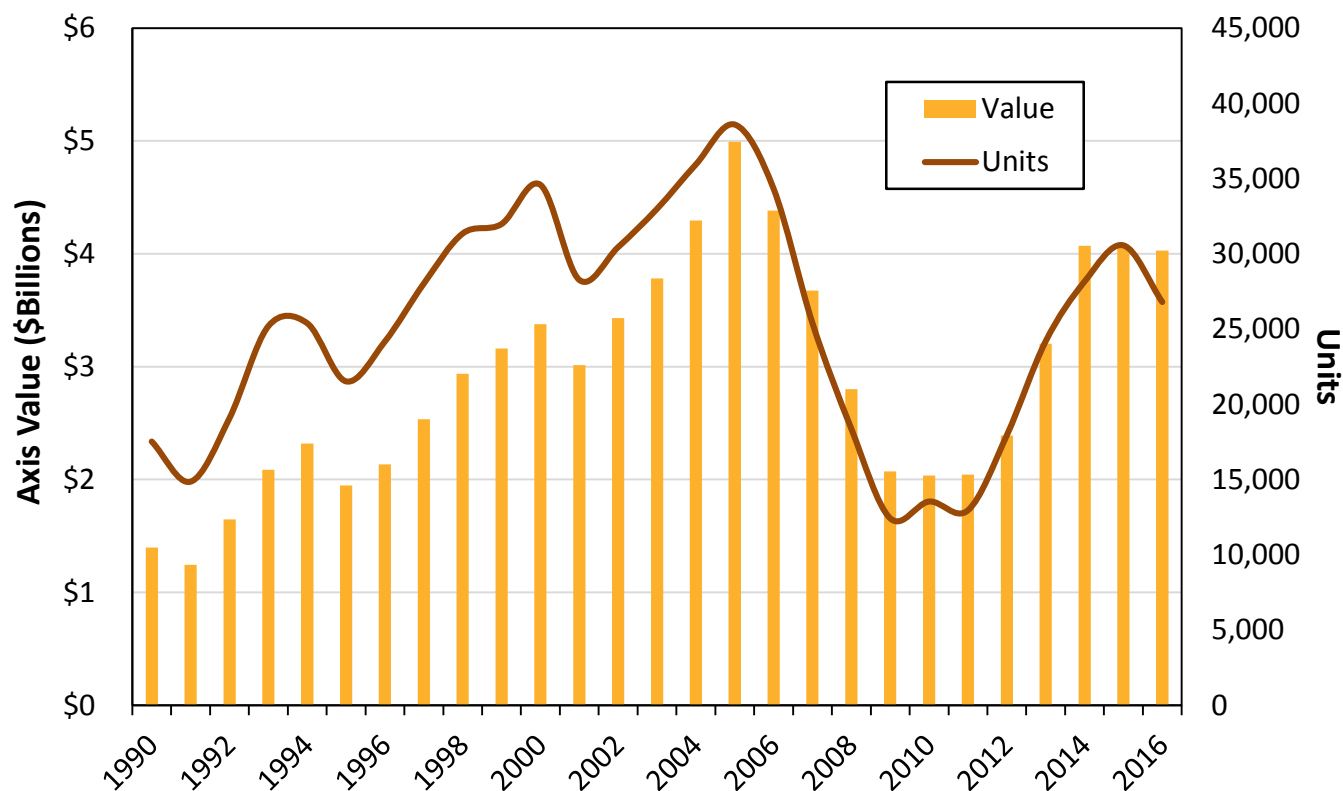


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Source: NJ Department of Labor & Workforce Development, U.S. Bureau of the Census, Manufacturing & Construction Division, Annual Residential Housing Units Authorized to be Built., 2016

NEW JERSEY RESIDENTIAL BUILDING PERMITS 1990-2016

New Jersey
Residential Building Permits
1990 - 2016



Residential Building Permits had a significant decline of 66.4 percent 2005 to 2011.

Then, Residential Building Permits had increased each year since 2012 until a decline in 2016.

Although there was a 12.3 percent decline in units, the value maintained its value with only a .6 percent decrease.

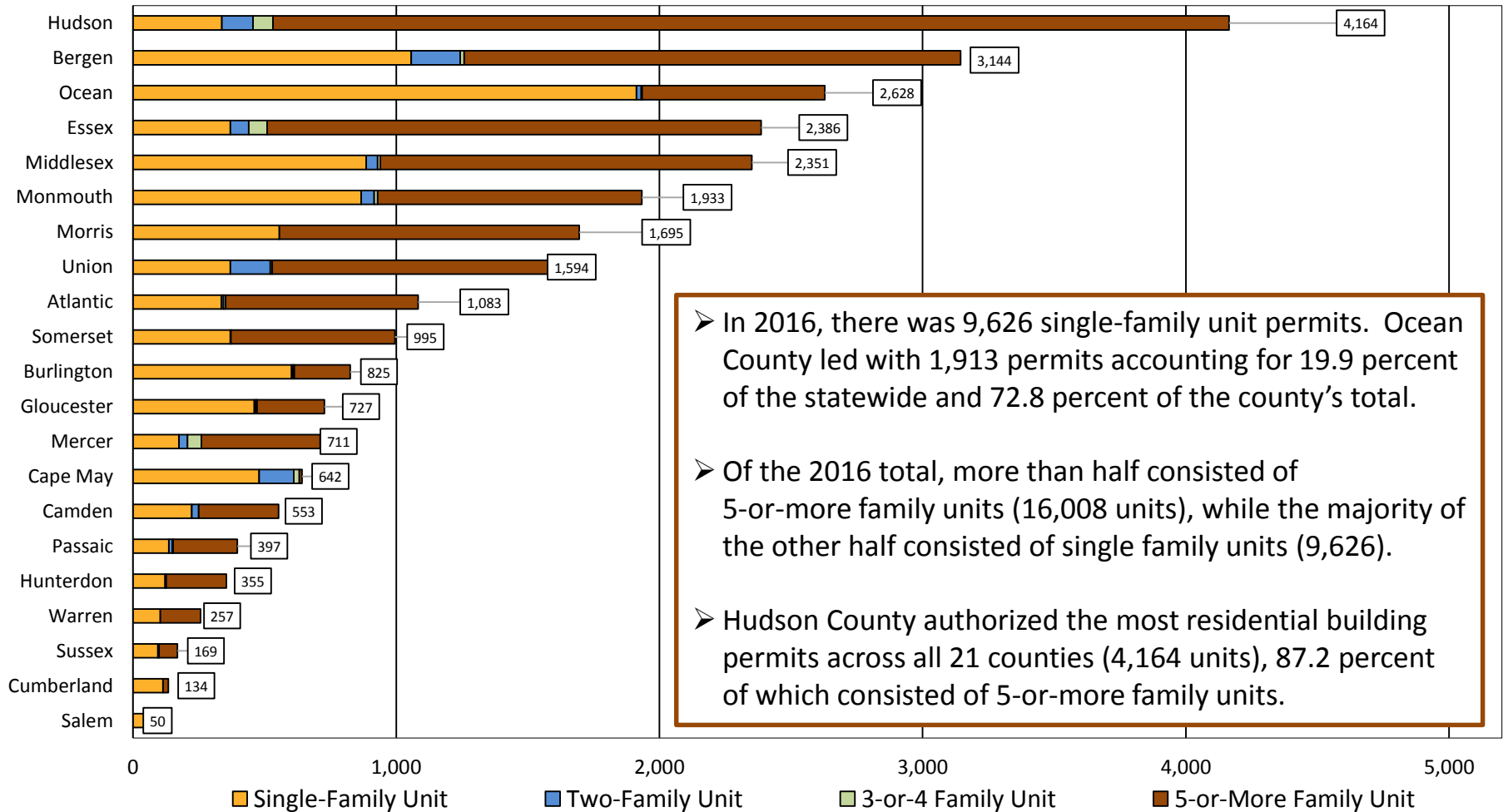


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Source: NJ Department of Labor & Workforce Development, U.S. Bureau of the Census, Manufacturing & Construction Division, Annual Residential Housing Units Authorized to be Built., 2016

2016 NEW JERSEY ANNUAL RESIDENTIAL BUILDING PERMITS BY TYPE OF CONSTRUCTION



BUILDING PERMITS BY REGION, 2016

REGION	COUNTY	VALUE	UNITS	SINGLE-FAMILY UNITS	TWO-FAMILY UNITS	3-OR-4 FAMILY UNITS	5-OR-MORE FAMILY UNITS
NORTH	Hudson	\$754,861,787	4,164	338	118	76	3,632
	Bergen	\$656,798,184	3,144	1,057	186	15	1,886
	Essex	\$241,666,350	2,386	370	70	70	1,876
	Morris	\$267,672,836	1,695	556	0	0	1,139
	Union	\$150,422,523	1,594	370	152	7	1,065
	Somerset	\$133,372,108	995	370	2	0	623
	Passaic	\$54,492,855	397	136	14	3	244
	Hunterdon	\$46,649,932	355	122	4	0	229
	Warren	\$24,531,416	257	104	0	0	153
	Sussex	\$33,167,736	169	95	4	0	70
CENTRAL	Ocean	\$426,098,048	2,628	1,913	18	3	694
	Middlesex	\$243,009,624	2,351	886	44	10	1,411
	Monmouth	\$307,001,585	1,933	867	50	13	1,003
	Mercer	\$81,894,231	711	175	32	53	451
SOUTH	Atlantic	\$129,262,632	1,083	336	8	8	731
	Burlington	\$113,371,754	825	603	6	4	212
	Gloucester	\$78,167,865	727	461	6	4	256
	Cape May	\$190,565,269	642	479	132	21	10
	Camden	\$73,559,729	553	224	26	0	303
	Cumberland	\$14,349,841	134	114	0	0	20
	Salem	\$7,772,708	50	50	0	0	0
TOTAL	New Jersey	\$4,028,689,013	26,793	9,626	872	287	16,008

- The types of residential housing permits issued varies across the three regions. The Northern Region issued the most residential permits (15,156 units). Over 72 percent (10,917 units) were for 5-or-more family unit construction.
- The Central Region had the second most residential authorizations (7,623). Single-family units accounted for 50.4 percent (3,841 units) of the planned homebuilding.
- The Southern Region issued the least building permits (4,014). Over thirty-eight percent (1,532 units) were for 5- or- more family units.

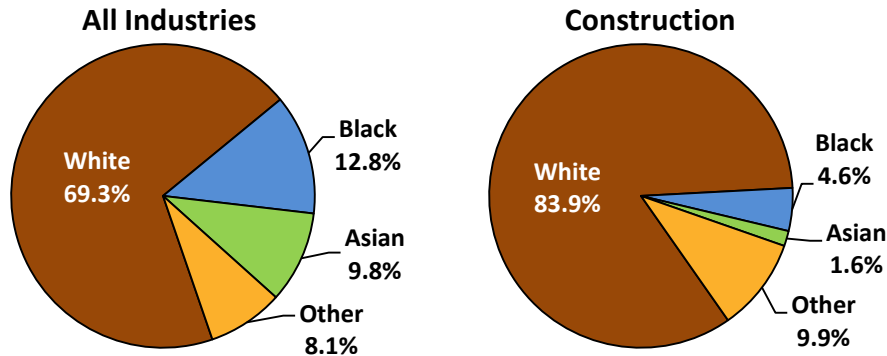


CONSTRUCTION INDUSTRY CLUSTER: 2016 DEMOGRAPHIC OVERVIEW

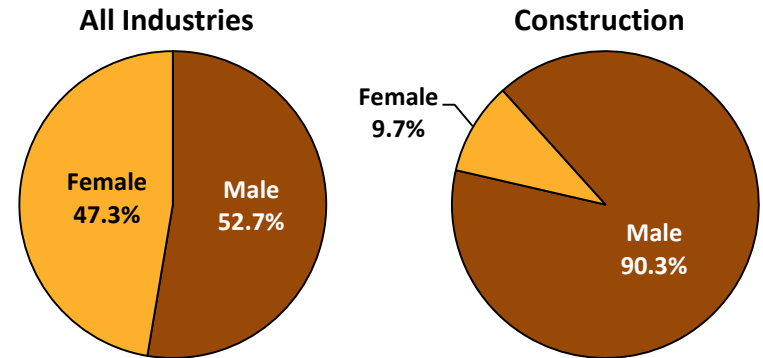


GENDER, RACIAL, AND ETHNIC PROFILE OF NEW JERSEY RESIDENTS WITHIN CONSTRUCTION

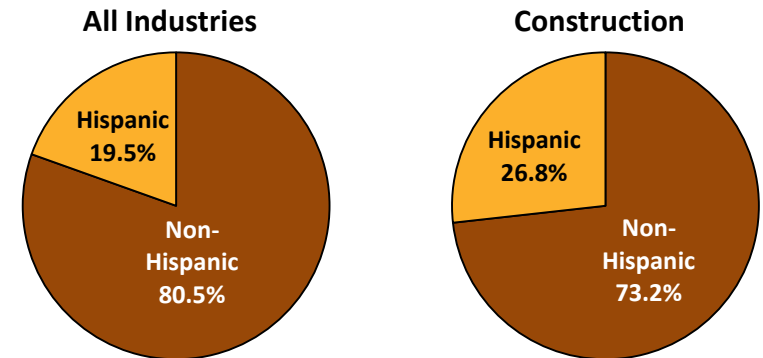
» The construction industry is male driven. There are approximately nine males for every female.



» The workforce has over 7 percent more Hispanics than the average in all industries.



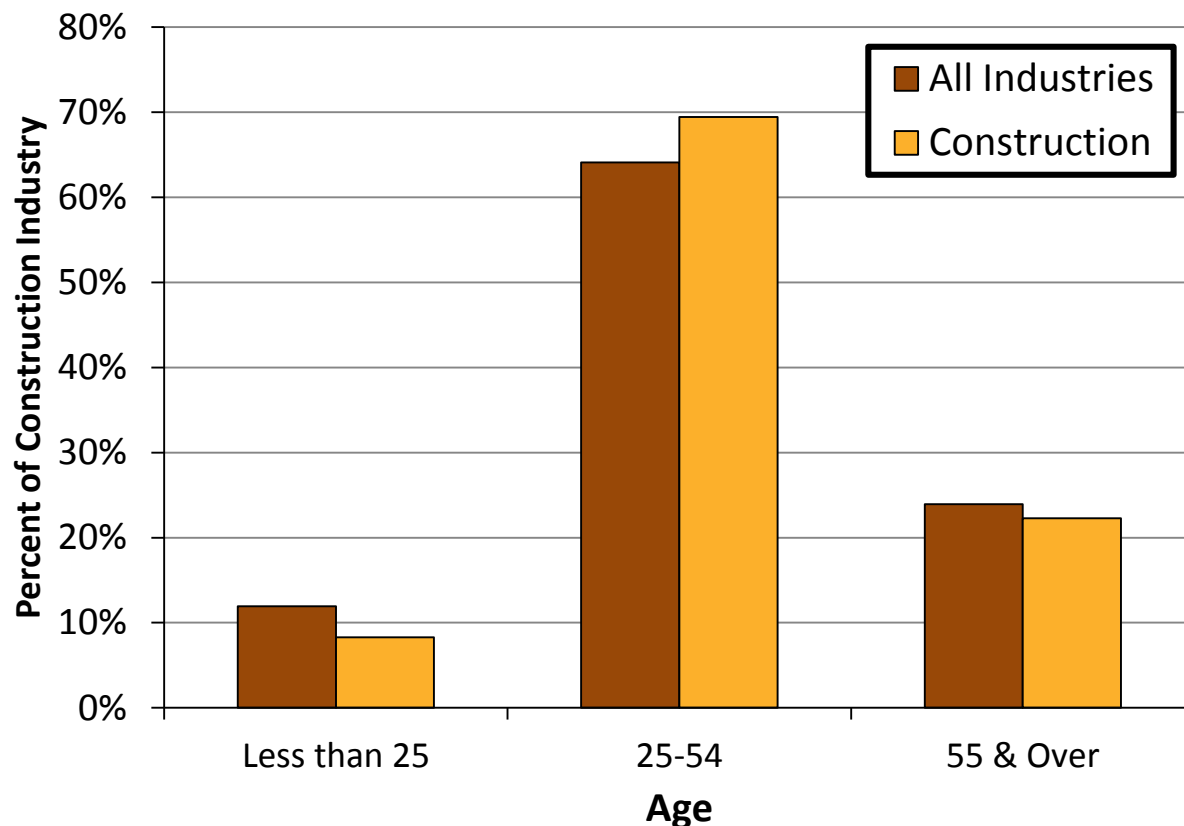
« The workforce is much less diverse than all industries.



*About 370,370 "unemployed" or "employed but not at work" workers were excluded (all industries).

CONSTRUCTION WORKFORCE AGE DEMOGRAPHICS (2016)

Age Demographics of 2016's Construction Workforce



**About 370,370 "unemployed" or "employed but not at work" workers were excluded (all industries).*

- Almost seventy percent of the construction resident workforce are 25-54 years old (-5.1%).
- The construction industry is made up of 5.3 percentage more 25-54 year olds than all industries, but has 3.7 percentage fewer less than 25 years than average.
- More than half of the construction workforce is between the ages of 35-54 (50.2%).
- 2016 saw an increase in the less than 25 age group (2.3%) as well as 55 & over (2.8%). However, 25-54 had more than a 5 percent decrease.



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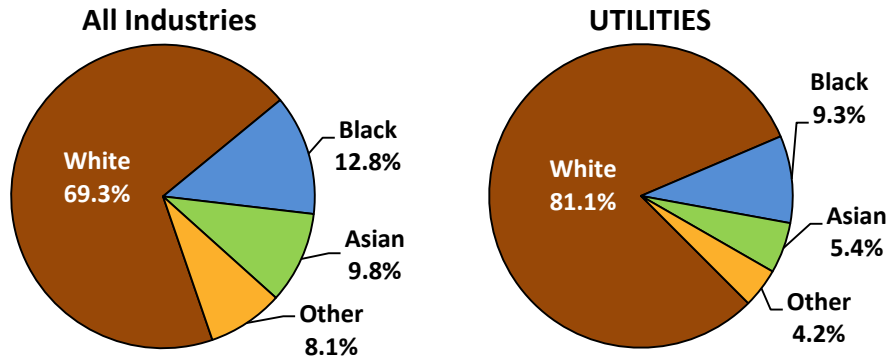
Source: New Jersey Department of Labor and Workforce Development
2016 U.S. Census Bureau, American Community Survey, 5-Year Estimates - January, 2018

UTILITIES INDUSTRY CLUSTER: 2016 DEMOGRAPHIC OVERVIEW



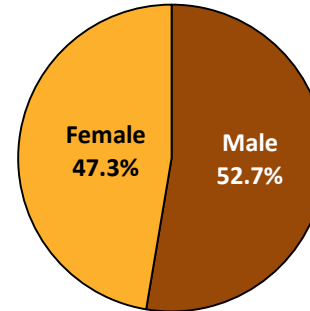
GENDER, RACIAL, AND ETHNIC PROFILE OF NEW JERSEY RESIDENTS WITHIN UTILITIES

» The utilities industry is also male driven. However, females make up almost one quarter of the industry.

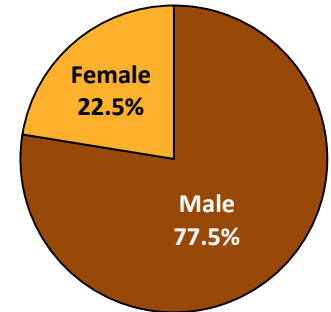


» The workforce has almost 10% less Hispanics than average.

All Industries

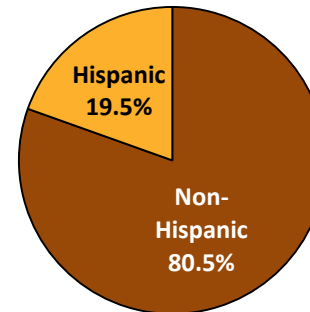


UTILITIES

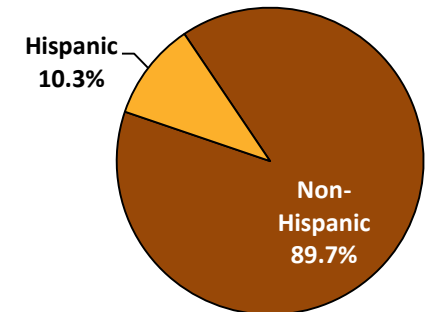


« The workforce is much less diverse than all industries.

All Industries



UTILITIES



*About 370,370 "unemployed" or "employed but not at work" workers were excluded (all industries).



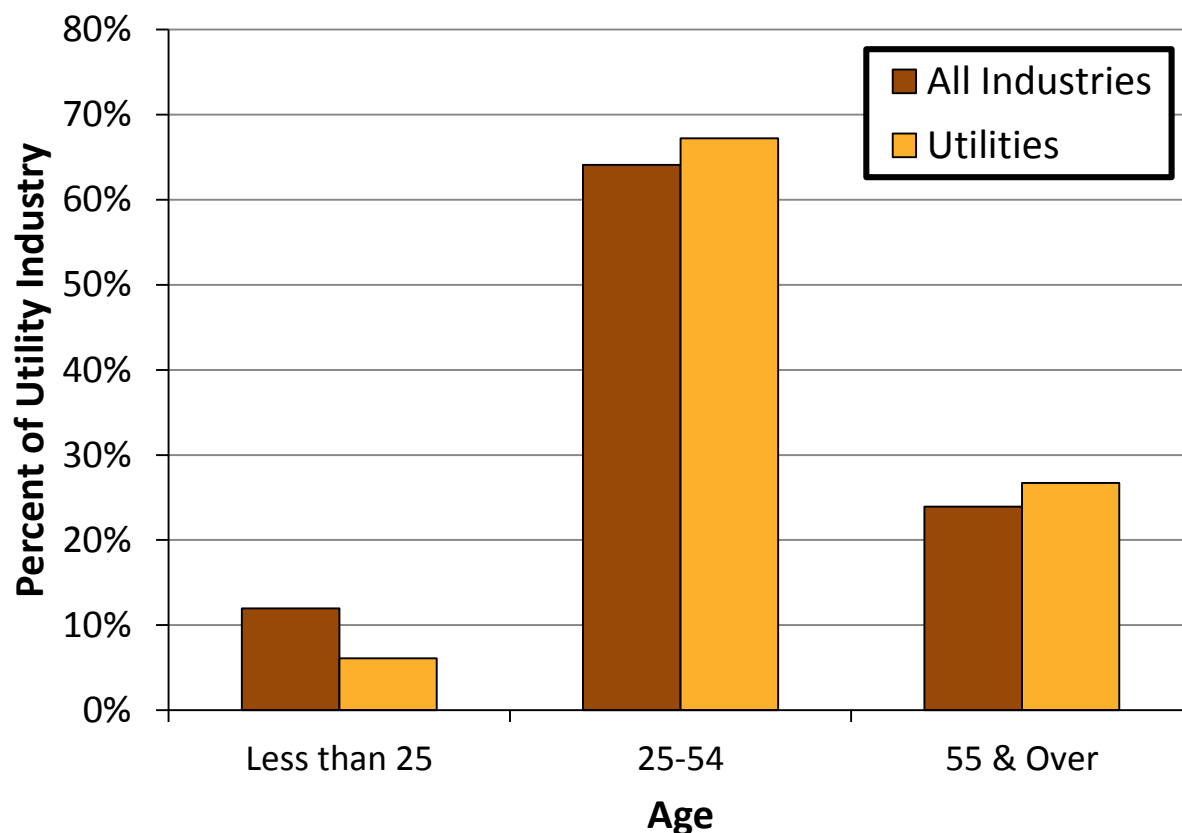
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Source: New Jersey Department of Labor and Workforce Development
2016 U.S. Census Bureau, American Community Survey, 5-Year Estimates - January, 2018

UTILITIES WORKFORCE AGE DEMOGRAPHICS (2016)



**About 370,370 "unemployed" or "employed but not at work" workers were excluded (all industries).*

- Almost seventy percent of the utility resident workforce are 25-54 years old, similar to construction (-7.6%).
- The utility industry has a higher percentage of 25-54 year olds compared to all industries (3.1%), and a lower percentage of those less than 25 years old (5.9%).
- More than half of the utility workforce is between the ages of 35-54 (55.2%), which is the same exact percentage as construction.
- 2016 saw a decrease in the less than 25 age group (-.4%) as well as the 25-54 age group. However, utilities saw a sharp increase for 55 and over with 8 percent.

CURRENT CONSTRUCTION DEVELOPMENTS BY REGION



NORTHERN REGION DEVELOPMENTS

- **American Dream Meadowlands – East Rutherford** More than 400 retailers, restaurants, and services; indoor amusement park and water park complex; Indoor ski and snowboard park; Observation wheel; 200-foot “drop ride”; Performing arts center that seats 2,400 to 3,000; League-sized ice rink; 180,000-square-foot movie complex with more than 5,000 seats; Aquarium; 18-hole miniature golf (Northjersey.com).
2016 Update: ...DreamWorks involved with the waterpark and a Nickelodeon-themed amusement park. (Northjersey.com)
2017 Update: Triple Five has begun the transformation to a white and gray exterior with enticing glass walls. Six-hundred construction workers are in-place with an anticipated 3,000 workers per day in the latter part of 2018. The expected opening of the 639,000-square-foot facility is now March 2019 and is estimated to bring 23,000 permanent jobs. (northjersey.com)
- **Portal North Bridge Project – Kearny** One of the larger parts of the Gateway Project has officially begun construction to double the height of the over 100 year old bridge. This \$20 million project is to “alleviate maritime congestion on the Hackensack River, congestion on the light rail and will finally allow passing trains to remain connected to the Northeast Corridor” as well as adding safety and longevity for the most active part of the railroad in North America. In conjunction with Hudson Tunnel Project (hudsontunnelproject.com) also helps protect “10% of America’s GDP.” (theobserver.com, njbiz.com)
- **Mulberry Commons park – Newark** After many years of negotiations, the City of Newark, the Devils NHL, Prudential arena and J&L Companies and Edison Properties, broke ground to create a 3-acre park across from the Prudential Center arena. The \$10 million project is expected to be the “centerpiece of a new community of residences and businesses that will generate more than 5,000 jobs and hundreds of million of dollars in investment” with it’s “tree-shaded lawns, walkways and seating, plantings, a pavilion and a fountain.” (nj.com)
- **Hunziker Renovations (Preakness Hall) at William Paterson University – Wayne** The university has opened the 1st part of their renovation project (Preakness Hall) for the fall 2017 semester and has began phase two of the Hunziker wing. The latest technology is to encourage students and faculty to interact. The “58,000-square-foot facility houses four state-of-the-art kinesiology laboratories, a phlebotomy room, 14 smart classrooms, a 90-seat auditorium, numerous small and large group study rooms, the Writing Center, and offices for the English and Philosophy departments’ faculty,” “HD projectors with a 133-inch projection screen, and many boast an additional 90-inch flat screen display” The new wing “will house additional smart classrooms and offices, group study rooms, a keyboard lab, a creative commons space, and the Black Box Theatre.” Expected completion is Summer 2018. (njbiz.com, wpunj.edu)



CENTRAL REGION DEVELOPMENTS

- **Rockefeller Logistics Center – Piscataway** Rockefeller Group officially broke ground on their newest project. The 2.2 million-square-foot logistics center will be right off of I-287 and contain six buildings 200,000-800,000 square feet, with 40-foot clearances, “on-site rail service, two means of ingress and egress to the site and an in-place 30-year PILOT agreement” as well as trailer parking “largely driven by e-commerce.” Requirements can begin early 2018. (njbiz.com)
- **Berkeley Island County Park – Berkeley** The summer of 2018 will see a 25-acre Sandy stricken area regain life. Officials are bringing back the “bathing beach, fishing pier, walking trails, picnic area and children’s playground.” This time around they are adding a “2,300-square foot splash park. Elevated nozzles with motion sensors will spray water on anyone who walks onto a special pad.” They are hoping that if all goes well, more county towns will do the same. A contract in the amount of \$6.9 million was given to Eagle Construction to rebuild and T&M Associates and Barlo & Associates to reengineer the park to protect it from any further storms. (app.com)
- **Ocean County Vocational Technical Schools Performing Arts Academy – Toms River** As the lease ends with the current location of Navy Lakehurst, funding has begun to create a new building at the Ocean County College campus. In October 2017 a bond of \$27 million was introduced “to move the building construction forward” and cost will be divided among New Jersey (\$10.6 million), Jay and Linda Grunin Foundation (\$8 million) and Board of Freeholders (\$8 million). The 60,000 square foot academic building is offering an Associates Degree in four majors: theater, vocal, dance and audio engineering with 160 credits. Estimated completion is expected in 2019. (shorenewsnetwork.com)
- **Roebling Center redevelopment – Trenton** HHG Development Associates opened the first phase (Roebling Lofts) at the Roebling Wire Works complex. The Lofts consist of 138 units from a \$40 million repurposed 475,000-square-foot industrial building. Once fully complete, the estimated \$150 million project “will deliver 170,000 square feet of Class A office space, 190 apartments and 37,000 square feet of restaurant and retail space” and more than 900 parking spaces. (njbiz; roeblingcenter.com)



SOUTHERN REGION DEVELOPMENTS

- **Joint Health Sciences Center – Camden** First of its kind in New Jersey, a 95,000 square-foot building funded by the Biomedical Facilities Act and the Higher Education Bond Act began their construction for a health care and biomedical research co-location center. Partners of Rutgers, Rowan, Camden County College and a Joint Board of Governors will share “laboratories, equipment and classrooms.” It is estimated it’ll have a \$72 million economic impact in Camden and hoping to be an example of other state-funded institutions to reduce the burden on taxpayers. “Approximately two-thirds of the space will be dedicated to research, multi-purpose rooms and offices focused on biomedical research” and is expected to open Spring 2019. (today.rowan.edu)
- **Rowan Boulevard development – Glassboro** The largest part of the development project known as A3 was completed in 2017. Nexus Properties and Rowan University officially opened “557 student beds, 43,000 square feet of retail space, 37 luxury apartments and 30,000 square feet of classroom.” Funding has been provided for the last phase of the project known as A4. A4 will be three buildings and 267,000 square feet with an additional “604 student beds, 20 luxury rentals and 18,000 square feet of retail.” The first phase was completed in 2010 and the last is expected for the summer of 2018 and totaling an estimated \$350 million project. (njbiz.com)
- **Hard Rock Hotel & Casino – Atlantic City** Summer of 2018 on the Atlantic City Boardwalk is set to see a whole new casino replacing Trump’s Taj Mahal. They are leaving no memory of the Taj casino with their investment of \$500 million. The new casino will have two arenas seating over 7,000 and 2,400 slot machines. It will embrace the “classic Hard Rock vibe” while recognizing the music industry of New Jersey and drawing “on the largest collection of music memorabilia in the world.” Hard Rock is expected to be hosting big names at their indoors and outdoor beach concerts. Stay at the Hard Rock and have your own Fender electric guitar delivered to your room. Rock on Hard Rock! (news.hardrockhotels.com)
- **Stockton Aviation Park – Egg Harbor Township** The first of seven multistory buildings of the Stockton Aviation Research and Technology park began construction after a \$17.2 million contract was approved. The 1st building of the 400,000 total square feet space, will be a “66,000-square-foot, three-story building will feature high-speed connectivity to the FAA Technical Center laboratories, state-of-the-art classrooms and conference rooms, and a rooftop lounge. An FAA lab and offices will occupy 7,000 square feet, with rental space for additional labs and offices.” (pressofatlanticcity.com)



CURRENT UTILITY PROJECTS



UTILITIES IN THE NEWS



Mercer County – McKesson Corporation is a Healthcare supply chain solutions provider that has a distribution center location in Robbinsville. They had signed an agreement to reduce energy costs with NRG Energy, Inc. in 2017 for installation of solar arrays. “The solar power purchase agreement calls for rooftop and ground-mounted solar arrays that will have a capacity up to 3 MW (megawatt).” “The estimated electricity produced in one year of the project is equivalent to powering about 400 homes.” The completion of this project is set for 2018 and once it has been completed, McKesson is expecting to do the same with their other distribution centers in the country. Sustainability Roundtable, Inc. and CBRE’s energy platform were also part of the planning process with NRG. (www.energymanagertoday.com)



Southern New Jersey – South Jersey Gas is pending approval for a three-year, second phase of Storm Hardening and Reliability Program to start in the summer of 2018 and complete in summer of 2021 (SHARP II). They would like to modernize and enhance their infrastructure to “better prepare for major weather events.” An estimated investment of \$110.25 million will be along the coast of Southern New Jersey with four projects including the installation of Excess Flow Valves – “mechanical safety devices designed to shut off the flow of natural gas automatically in the event of a service line break” as well construction at “Absecon Island loop, Ocean City loop and Brigantine Bridge.” From 2014-2017 they completed “upgrading low-pressure mains and services to high-pressure”. (southjerseygas.com)



Somerset County – New Jersey American Water broke ground on a project for flood control at the Raritan-Millstone Treatment Plant in Spring 2017. Hurricane Irene came within inches of flooding their facilities and potentially causing a shutdown that provides 63 communities in Central Jersey and produces a daily 155 million gallons of drinking water a day. The \$65 million at their largest New Jersey plant is to raise “the facility's north flood wall by four feet, raising and widening berms, installing new flood gates, new pumps and emergency generators and drainage improvements” potentially protecting Central Jersey from a \$1 billion loss over the next 20 to 30 years. The project is set to be completed in December 2018. (usatoday.com)



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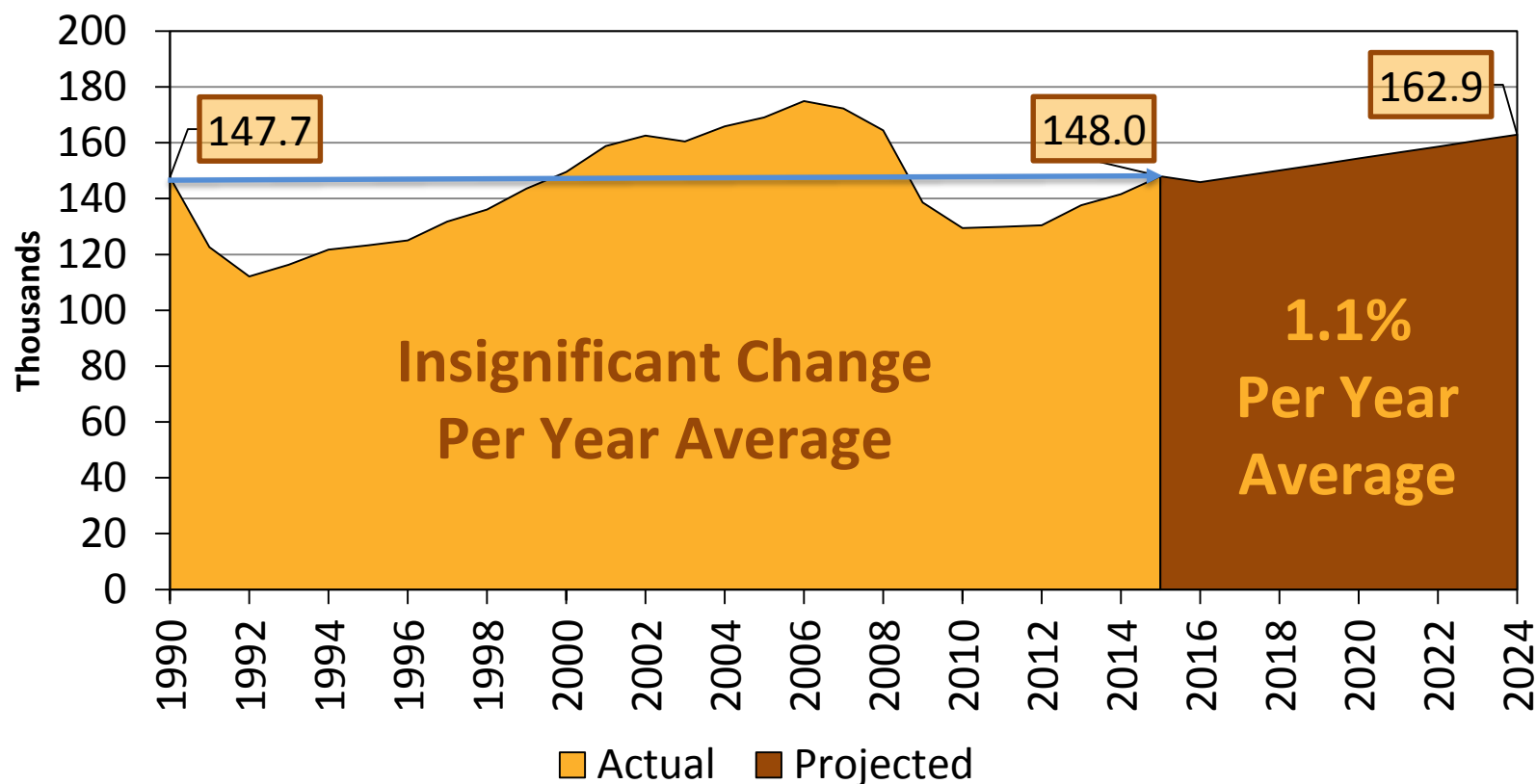
Source: NJ Department of Labor & Workforce Development, Updated: Winter 2017

CONSTRUCTION INDUSTRY CLUSTER: OCCUPATIONAL PROJECTIONS & OUTLOOK



NJ CONSTRUCTION INDUSTRY EMPLOYMENT PROJECTIONS

Construction employment is projected to grow through 2024, but at a slower rate (1.1%) than the 2022 Projections had shown.



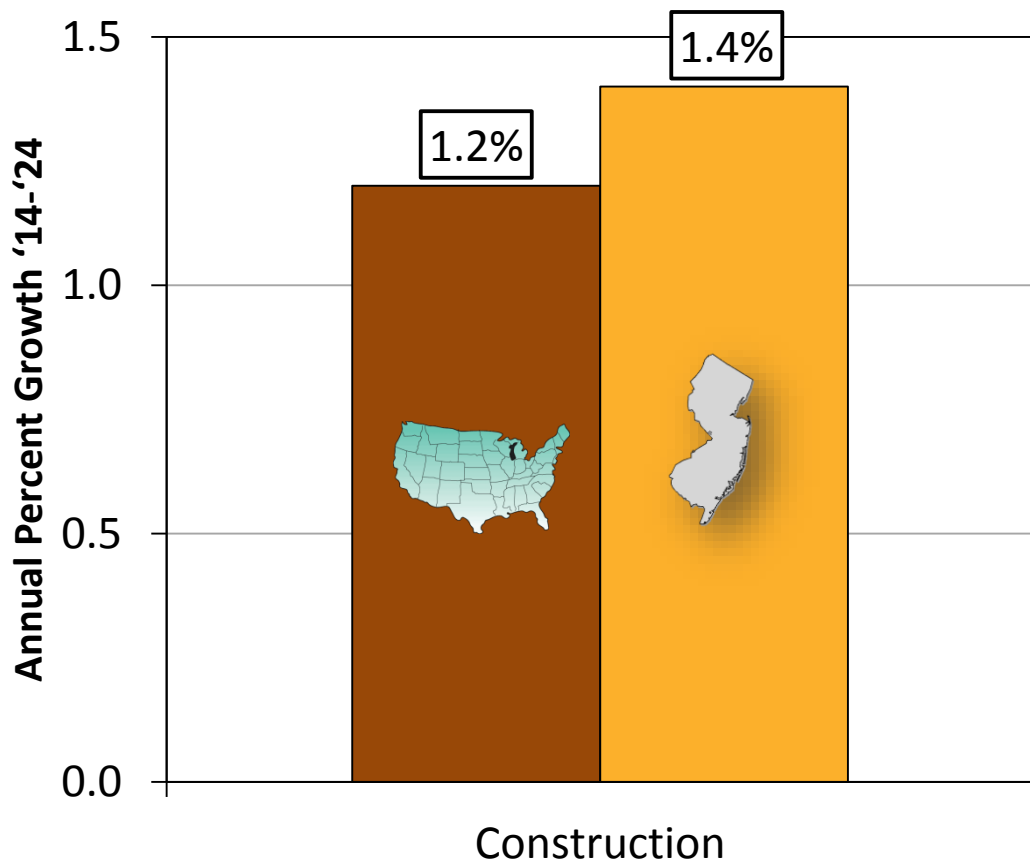
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Source: NJ Department of Labor & Workforce Development, Current Employment Statistics and NJ Long-Term Industry Projections 2014-2024

GREATER PROJECTED GROWTH FOR THE NATION THAN NEW JERSEY



- From 2014 to 2024, employment in the United States construction industry is projected to grow at an annual rate of 1.2 percent. New Jersey construction employment is projected to grow at a slightly higher rate of 1.4 percent.

- Over the ten year period, construction in the United States is projected to see a total percent increase in employment of 12.9 percent while New Jersey construction is projected to grow 15.0 percent.

- Construction employment in the United States is projected to grow by 790,400 by 2024.

- New Jersey construction employment is projected to increase by 21,300 by 2024.



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Source: NJ Department of Labor & Workforce Development, Bureau of Labor Statistics and NJ Long-Term Industry Projections 2014-2024

CONSTRUCTION AND EXTRACTION PROJECTED OCCUPATIONAL HIGHLIGHTS

- 11.0 percent employment growth, 2014-2024
- 14,810 additional employment
- 3,600 average annual job openings
- 58.7 percent of these openings are due to replacement demand.



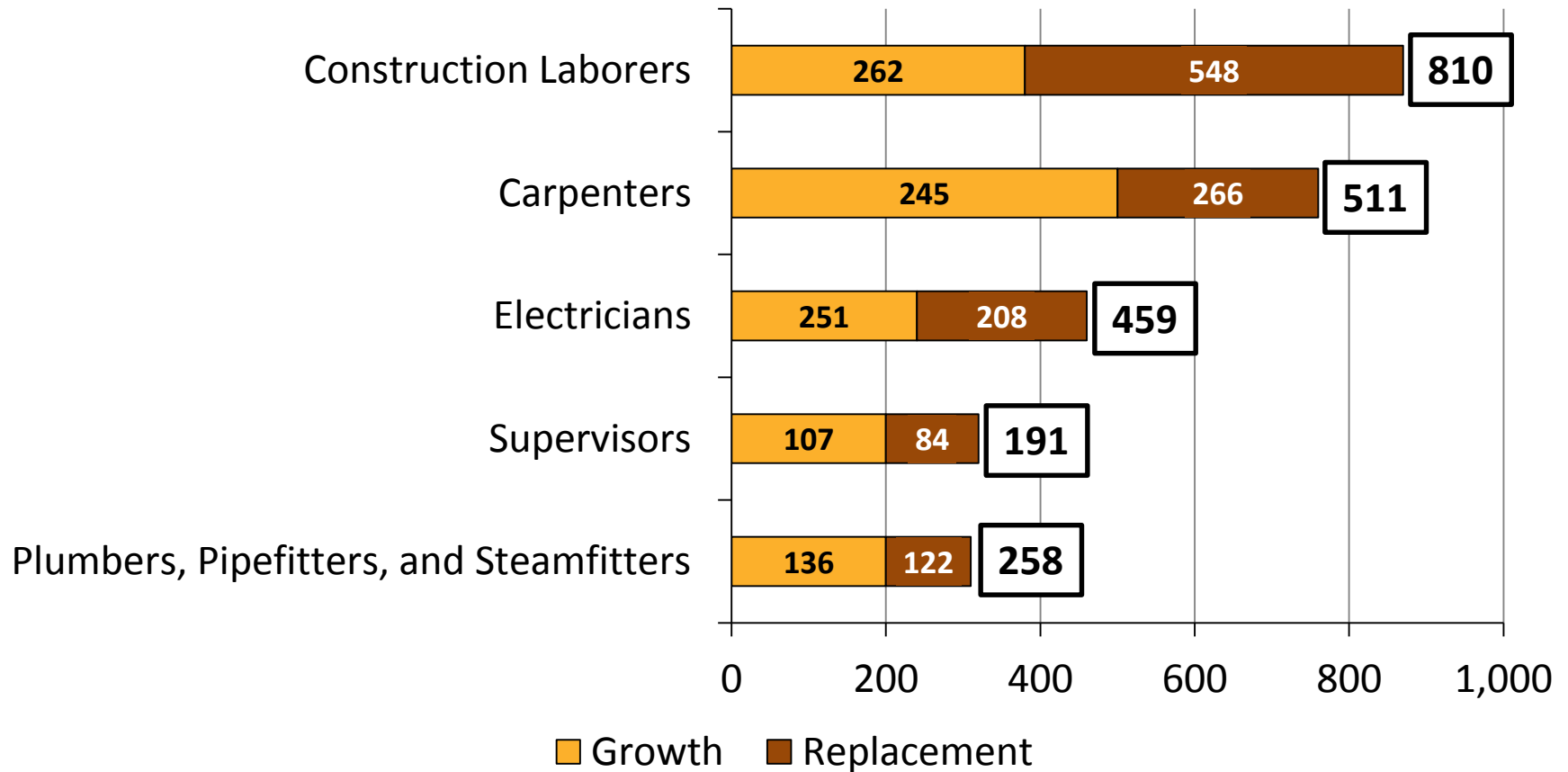
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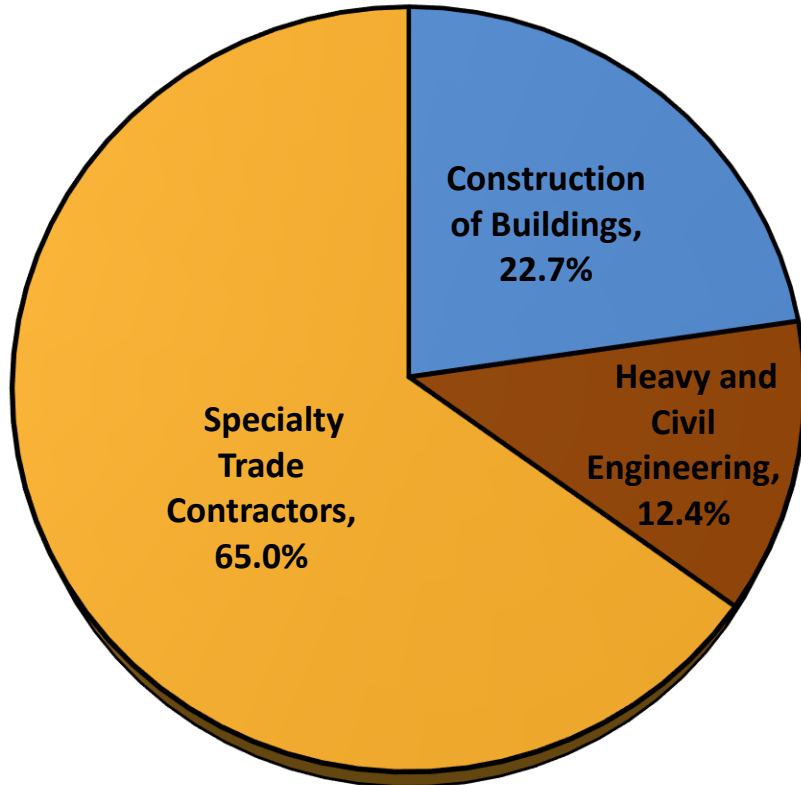
Source: NJ Department of Labor & Workforce
Development, 2014-2024 Occupational
Employment Projections

CONSTRUCTION LABORERS PROJECTED TO EXPERIENCE MOST ANNUAL AVERAGE OPENINGS BY 2024



NEARLY 2/3 OF THE PROJECTED CONSTRUCTION EMPLOYMENT GROWTH WILL BE IN SPECIALTY TRADE CONTRACTORS

2024 Projected Employment Growth



- From 2014 to 2024, employment in the construction industry is projected to increase by 21,300 with an annual growth rate of 1.4 percent.

- Specialty Trade Contractors is projected to see the largest annual percentage growth by 2024 (1.6%), followed by construction of buildings (1.3%), and heavy and civil engineering (0.4%).

- Employment Growth:
 - ❖ Specialty trade contractors + 15,850
 - ❖ Construction of buildings + 4,600
 - ❖ Heavy and civil engineering + 850

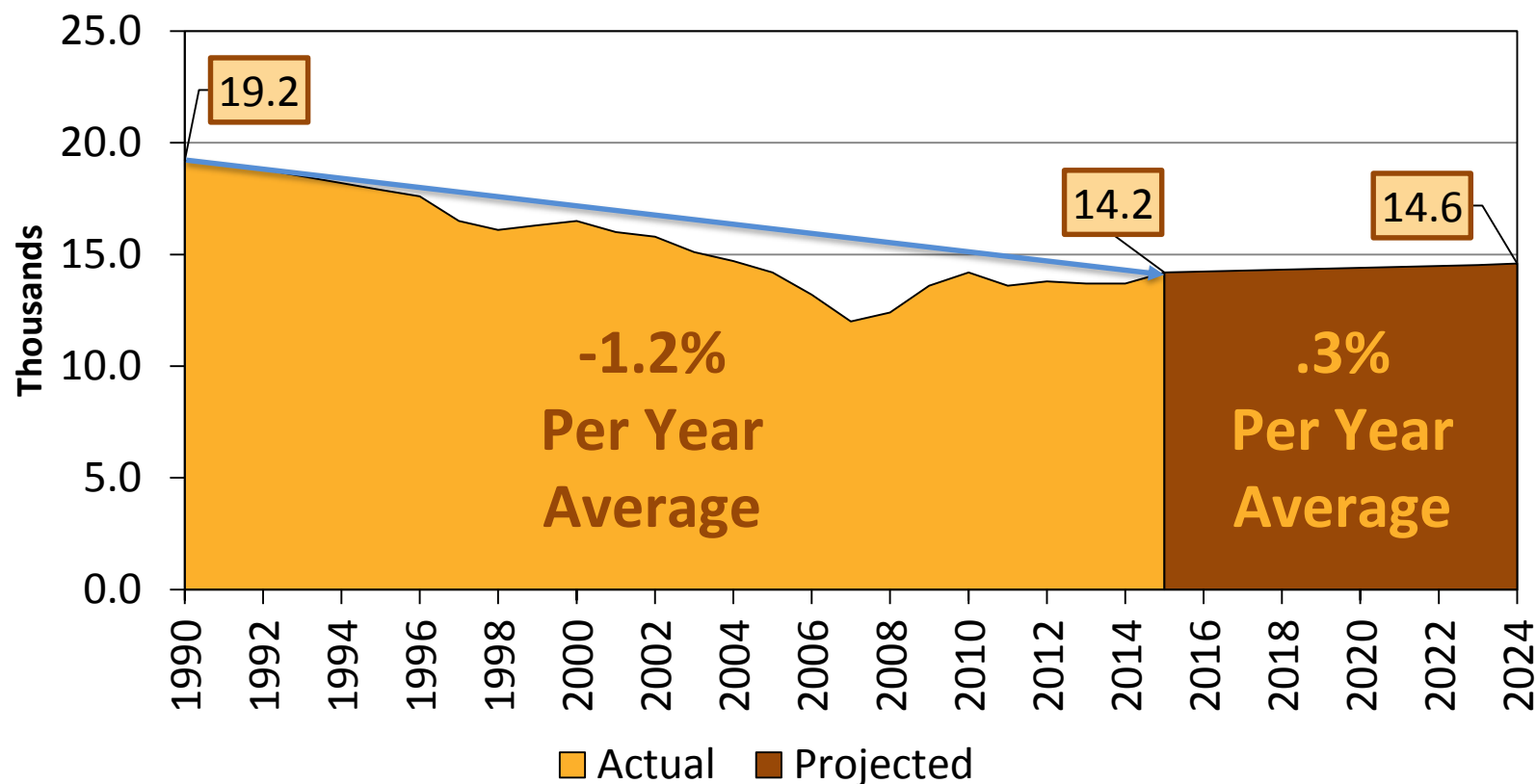


**UTILITIES INDUSTRY CLUSTER:
OCCUPATIONAL PROJECTIONS &
OUTLOOK**



NJ UTILITIES INDUSTRY EMPLOYMENT PROJECTIONS

Utilities employment projections into 2024 are estimated to maintain consistency compared to the slight decline it has seen in earlier years.

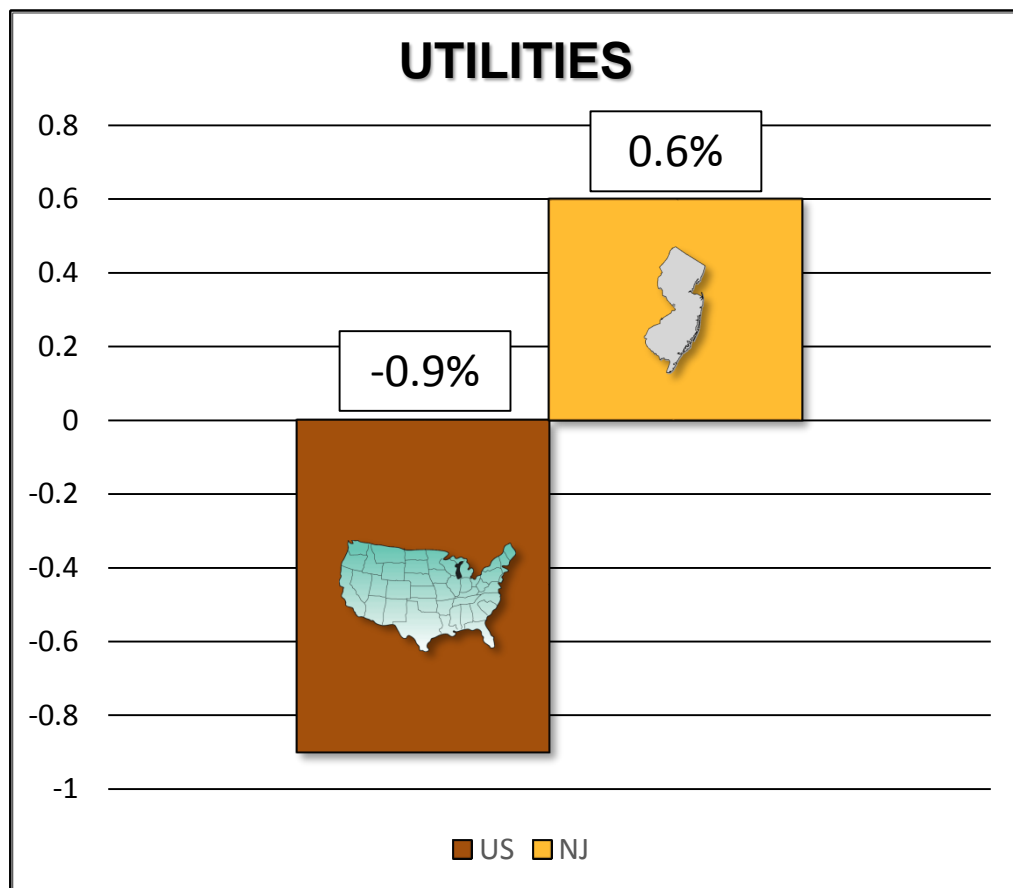


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Source: NJ Department of Labor & Workforce
Development, Current Employment Statistics and
NJ Long-Term Industry Projections 2014-2024

GREATER PROJECTED GROWTH FOR THE NATION THAN NEW JERSEY



- From 2014 to 2024, the United States utility industry employment is projected to decline at an annual rate of -0.9 percent. New Jersey utility employment is projected to grow at a rate of .6 percent.

- Over the ten year period, utilities in the United States is projected to see a total percent decrease in employment of -8.7 percent while New Jersey utilities is projected to grow 6.2 percent.

- Utility employment in the United States is projected to decrease by -47,000 by 2024 while New Jersey utility employment is projected to increase 850. Four hundred of those gains come from Electric Power Generation.



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NEW JERSEY CONSTRUCTION & UTILITIES INDUSTRY CLUSTER CONTACT INFORMATION

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<http://lwd.dol.state.nj.us/>

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