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.
Construction & Utilities combined make up near 9% of our State's establishments.

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

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, Annual Averages: October, 2018
NEW JERSEY CONSTRUCTION OVERVIEW

- The construction industry is divided into 3 components:
  - Specialty Trade Contractors
  - Construction of Buildings
  - Heavy and Civil Engineering

- In 2017, New Jersey’s Construction industry averaged 155,000 total employment. An increase of 2,527 (+1.7%) jobs from 2016’s average.

- An estimated 120,700 people were employed in occupations classified as construction and extraction across the state in 2017.

- In 2016, the construction industry’s average salary was $71,150.

In 2017, specialty trade contractors made up nearly two-thirds of construction industry employment; 22.6 percent construction of buildings; and 12.8 percent heavy and civil engineering.

Over the past 10 years (2007-2017) the construction industry had an overall decline of 17,300 jobs, and hit its peak in 2006 with 174,900.

However, from 2011 – 2017, construction saw an increase of 25,100 (3.6% per year) jobs.

Source: NJ Department of Labor & Workforce Development, Current Employment Statistics, Annual Averages: October, 2018
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 $120,300 in 2017 increasing $1,680 (1.4%) from 2016.

- The utilities sector has very few establishments (360 units), which only account for 0.14 percent of the overall units in New Jersey.
In 2017, Electric Power Generation, Transmission, and Distribution made up more than half (52.1%) of the utilities industry.

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

From 2007-2017, utilities industry employment has gained 2,200 jobs. The industry recorded 14,200 jobs in 2005, 2010 and 2015 and has now maintained those numbers thru 2017. The lowest employment since 1990 occurred in 2007 (12,000).


Source: NJ Department of Labor & Workforce Development, Current Employment Statistics, Annual Averages: October, 2018
CONSTRUCTION INDUSTRY CLUSTER: EMPLOYMENT ANALYSIS
In 2017, there were 21,687 construction industry establishments in New Jersey.

Over 83 percent of construction of building establishments perform work on residential buildings.

Specialty trade contractors make up nearly two-thirds of all construction industry establishments.
Establishments in the Construction of Buildings industry decreased by more than 18 percent (-1,560 units) from 2007 to 2017.

Construction of Buildings has decreased in its annual average employment by 6,490 jobs (-15.8%) from 2007 to 2017, but since 2010 has increased employment 20.5 percent (5,900 jobs).

Jobholding increased 21.7 percent while the average weekly wage went from $1,140 to $1,320 during the five-year period 2012-2017.

Construction of Buildings is made up of both non-residential and residential building. In 2017, Residential Building employed 22,540 while Non-residential Building employed only 12,090.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, Annual Averages: October, 2018
From 2012 to 2017, Heavy and Civil Engineering establishments decreased by -1.5 percent or 15.

Annual average employment increased by approximately 20.2 percent (3,260 jobs) since 2010.

Land Subdivision lost almost 1/3 of its employment (-31.2%, or -143 jobs) from 2010.

Payroll employment increased by 13.9 percent and the average weekly wage increased from $1,580 to $1,800 over the five-year period.

2017 employment: Highway, Street, and Bridge Construction (9,130), Utility System (6,990), other Heavy Construction (3,510), and Land Subdivision (320).

Source: NJ Department of Labor & Workforce Development. Quarterly Census of Employment and Wages, Annual Averages: October, 2018
From 2012 to 2017, Specialty Trade Contractors gained in its annual average employment (19.5% or 16,380 jobs).

Establishments decreased by 289 or -2.0 percent, but gained a significant percent of employment (19.5%).

While establishments decreased and employment increased, the average yearly wages also increased from $59,300 (2012) to $67,590 (2017) during the five-year period.

Specialty Trade Contractors employed 100,330 in 2017. Building Equipment Contractors employed the most (54,060), then Building Finishing Contractors (17,730), Building Foundation/Exterior Contractors (16,160), and other Specialty Trade Contractors (12,390).
• In 2017, 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 44.0 percent of establishments are located in the Northern New Jersey region.

Source: NJ Department of Labor & Workforce Development. Quarterly Census of Employment and Wages, Annual Averages: October, 2018
Establishments in the utility industry increased by an estimated 10.7 percent from 2012 to 2017.

Utility has seen a slight increase in its annual average employment by 2.6 percent (356 jobs) during this five-year period. However, minimal change 2016 to 2017 maintaining near average employment.

During the five-year period of 2012-2017, the utility industry has seen an increase of 10.8 percent in average weekly earnings from $2,090 to $2,310 a week.

Power generation and supply saw an employment decrease of 1.2 percent (-89) from 2012-2017. This sector accounted for more than half of 2017’s utility industry employment.

Source: NJ Department of Labor & Workforce Development. Quarterly Census of Employment and Wages, Annual Averages: October, 2018
CONSTRUCTION INDUSTRY CLUSTER: OCCUPATIONAL ANALYSIS
### Employment in Labor Area

**Construction Occupations in New Jersey, 2017**

#### Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018

#### Total Construction and Extraction Occupations

<table>
<thead>
<tr>
<th>Labor Area</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newark</td>
<td>34,910</td>
</tr>
<tr>
<td>Middlesex-Monmouth-Ocean</td>
<td>28,210</td>
</tr>
<tr>
<td>Bergen-Hudson-Passaic</td>
<td>24,120</td>
</tr>
<tr>
<td>Camden</td>
<td>17,150</td>
</tr>
<tr>
<td>Trenton</td>
<td>4,540</td>
</tr>
<tr>
<td>Atlantic City / Hammonton</td>
<td>4,300</td>
</tr>
<tr>
<td>Ocean City</td>
<td>2,090</td>
</tr>
<tr>
<td>Vineland / Bridgeton</td>
<td>1,920</td>
</tr>
<tr>
<td>Warren</td>
<td>1,130</td>
</tr>
<tr>
<td>Salem</td>
<td>980</td>
</tr>
</tbody>
</table>

*Total Construction and Extraction Occupations*

**Employment by Labor Area**

**Construction Occupations in New Jersey, 2017**

![Employment by Labor Area Map](image)
CONSTRUCTION AND EXTRACTION OCCUPATIONS MAKE UP MORE THAN HALF OF THE CONSTRUCTION INDUSTRY

2017 Employment by Major Occupational Group

- Construction and Extraction, 89,650
- Office and Administrative Support, 18,390
- Installation, Maintenance, and Repair, 15,400
- All Other, 33,910

Nearly fifty-seven percent of construction employees worked in Construction and Extraction Occupations.

The second largest occupational group in construction is Office and Administrative Support Occupations (11.7%).

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

The third largest is Installation, Maintenance, and Repair (9.8%).

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

The top three occupational groups make up more than 78 percent of employment in the construction industry sector.

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018
AVERAGE ANNUAL SALARIES FOR CONSTRUCTION AND EXTRACTION OCCUPATIONS, 2017

**Higher End Average Annual Salaries**

- Structural Iron and Steel Workers: $83,760
- Reinforcing Iron and Rebar Workers: $83,510
- Insulation Workers, Mechanical: $81,000
- Pile-Driven Operators: $78,940
- Supervisors of Construction Workers: $78,830

**Lower End Average Annual Salary**

- Carpet Installers: $45,770
- Painters, Construction and Maintenance: $45,440
- Solar Photovoltaic Installers: $42,180
- Insulation Workers, Floor, Ceiling, and Wall: $35,830
- Fence Erectors: $33,110

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018
### TOP 20 CONSTRUCTION OCCUPATIONS WITH THE MOST EMPLOYMENT IN NJ, 2017

<table>
<thead>
<tr>
<th>SOC Code</th>
<th>Occupation</th>
<th>Employment</th>
<th>Average Wage</th>
<th>Education Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>47-2061</td>
<td>Construction Laborers</td>
<td>18,720</td>
<td>$52,830</td>
<td>No formal educational credential</td>
</tr>
<tr>
<td>47-2031</td>
<td>Carpenters</td>
<td>14,050</td>
<td>$61,740</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>47-2111</td>
<td>Electricians</td>
<td>13,830</td>
<td>$70,980</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>47-2152</td>
<td>Plumbers, Pipefitters, and Steamfitters</td>
<td>7,410</td>
<td>$71,510</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>49-9021</td>
<td>Heating, Air Conditioning, and Refrigeration Mechanics and Installers</td>
<td>6,670</td>
<td>$58,030</td>
<td>Postsecondary nondegree award</td>
</tr>
<tr>
<td>43-9061</td>
<td>Office Clerks, General</td>
<td>6,350</td>
<td>$34,760</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>47-1011</td>
<td>First-Line Supervisors of Construction Trades and Extraction Work</td>
<td>5,350</td>
<td>$78,830</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>11-9021</td>
<td>Construction Managers</td>
<td>4,710</td>
<td>$142,240</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>43-3031</td>
<td>Bookkeeping, Accounting, and Auditing Clerks</td>
<td>3,600</td>
<td>$48,170</td>
<td>Some college, no degree</td>
</tr>
<tr>
<td>47-2073</td>
<td>Operating Engineers and Other Construction Equipment Operators</td>
<td>3,430</td>
<td>$77,460</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>47-2141</td>
<td>Painters, Construction and Maintenance</td>
<td>3,360</td>
<td>$45,440</td>
<td>No formal educational credential</td>
</tr>
<tr>
<td>13-1051</td>
<td>Cost Estimators</td>
<td>3,240</td>
<td>$73,630</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>47-2051</td>
<td>Cement Masons and Concrete Finishers</td>
<td>2,890</td>
<td>$60,810</td>
<td>No formal educational credential</td>
</tr>
<tr>
<td>43-6014</td>
<td>Secretaries and Administrative Assistants, Except Legal, Medical,</td>
<td>2,810</td>
<td>$33,900</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>53-3032</td>
<td>Heavy and Tractor-Trailer Truck Drivers</td>
<td>2,020</td>
<td>$56,680</td>
<td>Postsecondary nondegree award</td>
</tr>
<tr>
<td>47-3013</td>
<td>Helpers--Electricians</td>
<td>1,780</td>
<td>$33,460</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>47-2021</td>
<td>Brickmasons and Blockmasons</td>
<td>1,650</td>
<td>$66,180</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>47-2181</td>
<td>Roofers</td>
<td>1,520</td>
<td>$56,450</td>
<td>No formal educational credential</td>
</tr>
<tr>
<td>47-2081</td>
<td>Drywall and Ceiling Tile Installers</td>
<td>1,460</td>
<td>$59,070</td>
<td>No formal educational credential</td>
</tr>
<tr>
<td>47-2211</td>
<td>Sheet Metal Workers</td>
<td>1,460</td>
<td>$65,380</td>
<td>High school diploma or equivalent</td>
</tr>
</tbody>
</table>

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

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018
UTILITIES INDUSTRY CLUSTER: OCCUPATIONAL ANALYSIS
INSTALLATION, MAINTENANCE AND REPAIR IS THE MAIN UTILITY OCCUPATIONAL GROUP HOLDING 32.1 PERCENT OF EMPLOYMENT

The top three occupational groups make up 61.6 percent of employment in the utilities industry sector.

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018
AVERAGE ANNUAL SALARY FOR UTILITIES, 2017

Higher End Average Annual Salaries

- Management Occupations: $155,390
- Computer and Mathematical Occupations: $106,130
- Architecture and Engineering Occupations: $95,300
- Business and Financial Operations Occupations: $84,060

Lower End Average Annual Salary

- Office and Administrative Support Occupations: $68,080
- Sales and Related Occupations: $67,960
- Transportation and Material Moving Occupations: $68,080
- Building and Grounds Cleaning and Maintenance Occupations: $34,560

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

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018
UTILITY JOBS IN CONSTRUCTION AND EXTRACTION OCCUPATIONS

UTILITIES
14,130

UTILITIES in Construction & Extraction Occupations
1,130

Plumbers, Pipefitters, and Steamfitters
320 Employment
Mean Annual
$84,170

Operating Engineers & Other Construction Equipment Operators
170 Employment
Mean Annual
$71,660

Construction and Building Inspectors
160 Employment
Mean Annual
$73,390

Construction Laborers
80 Employment
Mean Annual
$46,290

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018
## TOP 20 UTILITY OCCUPATIONS WITH THE MOST EMPLOYMENT IN NJ, 2017

80 percent of the Top 20 Utility Occupations in NJ Require a High School Diploma or Less

<table>
<thead>
<tr>
<th>SOC Code</th>
<th>Occupation</th>
<th>Employment</th>
<th>Average Wage</th>
<th>Education Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>49-9021</td>
<td>Heating, Air Conditioning, and Refrigeration Mechanics and Installers</td>
<td>800</td>
<td>$68,263</td>
<td>Postsecondary nondegree award</td>
</tr>
<tr>
<td>49-9051</td>
<td>Electrical Power-Line Installers and Repairers</td>
<td>750</td>
<td>$88,033</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>49-1011</td>
<td>First-Line Supervisors of Mechanics, Installers, and Repairers</td>
<td>580</td>
<td>$87,735</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>49-9041</td>
<td>Industrial Machinery Mechanics</td>
<td>560</td>
<td>$60,352</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>43-4051</td>
<td>Customer Service Representatives</td>
<td>480</td>
<td>$51,197</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>49-9031</td>
<td>Home Appliance Repairers</td>
<td>480</td>
<td>$49,031</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>51-8013</td>
<td>Power Plant Operators</td>
<td>470</td>
<td>$81,862</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>51-1011</td>
<td>First-Line Supervisors of Production and Operating Workers</td>
<td>390</td>
<td>$83,667</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>49-2095</td>
<td>Electrical and Electronics Repairers, Powerhouse, Substation</td>
<td>380</td>
<td>$85,350</td>
<td>Postsecondary nondegree award</td>
</tr>
<tr>
<td>47-2152</td>
<td>Plumbers, Pipefitters, and Steamfitters</td>
<td>320</td>
<td>$84,169</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>43-9061</td>
<td>Office Clerks, General</td>
<td>270</td>
<td>$49,667</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>51-8031</td>
<td>Water and Wastewater Treatment Plant and System Operators</td>
<td>260</td>
<td>$61,286</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>17-2071</td>
<td>Electrical Engineers</td>
<td>250</td>
<td>$103,168</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>43-5081</td>
<td>Stock Clerks and Order Fillers</td>
<td>250</td>
<td>$57,226</td>
<td>No formal educational credential</td>
</tr>
<tr>
<td>49-9012</td>
<td>Control and Valve Installers and Repairers, Except Mechanical Door</td>
<td>250</td>
<td>$69,200</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>51-8012</td>
<td>Power Distributors and Dispatchers</td>
<td>240</td>
<td>$89,265</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>17-3023</td>
<td>Electrical and Electronics Engineering Technicians</td>
<td>210</td>
<td>$74,761</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>43-3011</td>
<td>Bill and Account Collectors</td>
<td>190</td>
<td>$68,815</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>43-1011</td>
<td>First-Line Supervisors of Office and Administrative Support</td>
<td>180</td>
<td>$84,745</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>47-2073</td>
<td>Operating Engineers and Other Construction Equipment Operators</td>
<td>170</td>
<td>$71,655</td>
<td>High school diploma or equivalent</td>
</tr>
</tbody>
</table>

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Survey: October, 2018
Starting with the most recent recession, the construction industry had seen a significant employment decline (2007-2010). Construction had an overall drop of 28,900 (-25.6%).

However, in the past 5 years (2012-2017), construction has gained 24,600 employment (18.9%). Since 2010, construction has added jobs yearly, but has yet to reach its’ 2006 peak of 174,900 (-19,900).

Over the last year (2016-2017), construction experienced an one percent increase, adding 1,500 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 2011-2017. Construction of Buildings has seen an increase of 6,700 (23.7%), Heavy and Civil Engineering has seen a 3,200 (19.2%) increase and Specialty Trade Contractors has seen a 15,200 (17.9%) increase.

Shaded vertical bars indicate national recessionary periods as determined by the National Bureau of Economic Research (NBER).
From 2008 to 2009, construction experienced the largest total annual average employment decrease since 1990. A total of 25,900 jobs were lost, largely in part to steep declines in the specialty trade contractors industry (-17,200).

For the seventh consecutive year, the construction industry experienced overall employment growth. Each component of construction from 2016 to 2017 had a slight uptick in employment. Heavy civil engineering gained 400 jobs, specialty trade contractors added 900 jobs, and construction of buildings increased by 100 jobs.

The recent recession caused a dip in employment over recent years, but the 25,500 jobs added over the last seven years (2011 – 2017) is a sign of recovery.

Source: NJ Department of Labor & Workforce Development. Current Employment Statistics, Annual Averages: October, 2018
In 1992, the United States experienced the largest decline from the base year of 1990 (-12.5%). Since then, the United States has recovered to +32.1 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 2017, employment for New Jersey and the United States are both greater than the base year.
NJ UTILITY INDUSTRY EMPLOYMENT
From 1990 to 2017, 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. 2017 employment has remained steady.

Electric power generation, transmission, and distribution has declined in 2016-2017 becoming equivalent to 2012 and 2013 employment numbers at 7,400.

From 2016 to 2017, utilities did not experience any change as a whole. However, natural gas distribution saw a 7 percent increase while electric power generation, transmission, and distribution saw a -2.6 percent decrease.

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

Source: NJ Department of Labor & Workforce Development. Current Employment Statistics, Annual Averages: October, 2018
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 ending at 12,000.

In the past 10 yrs. (2007-2017), utilities peak employment of 14,200 was hit in 2010 and 2015 thru 2017.

During the recession of 2007-2010, utilities was one of the few industries that remained positive with an overall gain of 2,200 jobs.

Source: NJ Department of Labor & Workforce Development. Current Employment Statistics, Annual Averages: October, 2018
• New Jersey and the United States showed peak employment in 1990.

• Since 2005, the US held a greater percentage of their peak employment compared to NJ. NJ stayed stronger during the period of 1993 – 2004.

• NJ saw the largest decline in employment 2006 - 2007 (9.1%), but climbed back with the strongest year/year 2008-2009 with 9.7 percent. The US lost the most during 1995-1996 with -4 percent and gained 1 percent 2007-2008.

• In 2017, employment for NJ remained steady with 14,200 from 2016. The US had a slight decrease of .3 percent from the year prior (554,800).

Source: NJ Department of Labor & Workforce Development. Current Employment Statistics, Annual Averages: October, 2018
RESIDENTIAL BUILDING PERMITS
In 2017, there were 28,501 housing units authorized for construction in New Jersey, representing an increase of 6.4 percent over the 2016 year.

From 2014 to 2017, 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.

Source: NJ Department of Labor & Workforce Development, U.S. Bureau of the Census, Manufacturing & Construction Division, Annual Residential Housing Units Authorized to be Built: October, 2018
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 (2012-2017) construction employment gained 24,600 (18.7%) new jobs while permits greatly grew to 28,501 (58.9%, 17,939).

From 1990 to 2017, the number of building permits issued annually have increased 62.6 percent, while construction employment has only increased 4.9 percent.

Source: NJ Department of Labor & Workforce Development, U.S. Bureau of the Census, Manufacturing & Construction Division, Annual Residential Housing Units Authorized to be Built: October, 2018
Residential Building Permits had a significant decline of 66.4 percent from 2005 to 2011.

Then, Residential Building Permits had increased each year since 2012 until a decline in 2016 and quick rebound in 2017 (6.4%).

Since 1990, permits had an overall increase of 62.6 percent and near 200 percent in value.

Source: NJ Department of Labor & Workforce Development, U.S. Bureau of the Census, Manufacturing & Construction Division, Annual Residential Housing Units Authorized to be Built: October, 2018
In 2017, there was 10,148 single-family unit permits. Ocean County led with 2,791 permits accounting for 27.5 percent of the statewide single-family units and 81.4 percent of the county’s total.

Of the 2017 total, more than half consisted of 5-or-more family units (16,872 units), while the majority of the other half consisted of single family units (10,148).

Hudson County authorized the most residential building permits across all 21 counties (5,073 units), 90.5 percent of which consisted of 5-or-more family units.
The types of residential housing permits issued varies across the three regions. The Northern Region issued the most residential permits (14,969 units). Over 72.9 percent (10,905 units) were for 5-or-more family unit construction.

The Central Region had the second most residential authorizations (8,236). Single-family units accounted for 56.2 percent (4,630 units) of the planned homebuilding.

The Southern Region issued the least building permits (5,296). Over thirty-eight percent (2,753 units) were for 5-or-more family units.

### BUILDING PERMITS BY REGION, 2017

<table>
<thead>
<tr>
<th>REGION</th>
<th>COUNTY</th>
<th>VALUE</th>
<th>UNITS</th>
<th>SINGLE-FAMILY UNITS</th>
<th>TWO-FAMILY UNITS</th>
<th>3-OR-4 FAMILY UNITS</th>
<th>5-OR-MORE FAMILY UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTH</td>
<td>Hudson</td>
<td>$700,292,127</td>
<td>5,073</td>
<td>243</td>
<td>148</td>
<td>89</td>
<td>4,593</td>
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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: October, 2018
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).

Source: New Jersey Department of Labor and Workforce Development
2016 U.S. Census Bureau, American Community Survey, 5-Year Estimates: October, 2018
CONSTRUCTION WORKFORCE AGE DEMOGRAPHICS (2016)

- Almost seventy percent of the construction resident workforce are 25-54 years old.

- 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.

Source: New Jersey Department of Labor and Workforce Development
2016 U.S. Census Bureau, American Community Survey, 5-Year Estimates: October, 2018
UTILITIES INDUSTRY CLUSTER: 2016 DEMOGRAPHIC OVERVIEW
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

- White: 69.3%
- Black: 12.8%
- Asian: 9.8%
- Other: 8.1%

UTILITIES

- White: 81.1%
- Black: 9.3%
- Asian: 5.4%
- Other: 4.2%

All Industries

- Female: 47.3%
- Male: 52.7%

UTILITIES

- Female: 22.5%
- Male: 77.5%

The workforce is much less diverse than all industries.

All Industries

- Hispanic: 19.5%
- Non-Hispanic: 80.5%

UTILITIES

- Hispanic: 10.3%
- Non-Hispanic: 89.7%

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

Source: New Jersey Department of Labor and Workforce Development
2016 U.S. Census Bureau, American Community Survey, 5-Year Estimates: October, 2018
Almost seventy percent of the utility resident workforce are 25-54 years old, similar to construction.

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.

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

Source: NJ Department of Labor & Workforce Development, Updated: Winter 2017
Rockefeller Logistics Center – Piscataway  Rockefeller Group officially broke ground on their newest project. The 2.2 million-square-feet 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 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 indoor and outdoor beach concerts. (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)

Source: NJ Department of Labor & Workforce Development, Updated: Winter 2017
CURRENT UTILITY PROJECTS
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)
CONSTRUCTION INDUSTRY CLUSTER: OCCUPATIONAL PROJECTIONS & OUTLOOK
Construction employment is projected to grow through 2026 at a greater rate (1.4%) than the 2024 Projections had shown.

Source: NJ Department of Labor & Workforce Development, Current Employment Statistics and NJ Long-Term Industry Projections 2016-2026: October, 2018
GREATER PROJECTED GROWTH FOR NEW JERSEY THAN THE NATION

- From 2016 to 2026, 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 14.8 percent.

- Construction employment in the United States is projected to grow 864,700 by 2026.

- New Jersey construction employment is projected to increase 22,660 by 2026.

Source: NJ Department of Labor & Workforce Development, Bureau of Labor Statistics and NJ Long-Term Industry Projections 2016-2026: October, 2018
CONSTRUCTION AND EXTRACTION
PROJECTED OCCUPATIONAL HIGHLIGHTS

- 14.8 percent employment growth, 2016-2026
- 22,660 additional employment
- 17,150 average annual job openings
- 58.5 percent of these openings are due to replacement demand.

Source: NJ Department of Labor & Workforce Development, 2016-2026 Occupational Employment Projections: October, 2018
CONSTRUCTION LABORERS PROJECTED TO EXPERIENCE MOST ANNUAL AVERAGE OPENINGS BY 2026

Top Projected Annual Average Job Openings

- Construction Laborers: 3,590
- Electricians: 2,320
- Carpenters: 2,560
- Plumbers, Pipefitters, and Steamfitters: 1,360
- Supervisors: 960

Construction laborers are projected to account for 20.9 percent of the average annual job openings for NJ Construction and Extraction occupations from 2016 to 2026.

Source: NJ Department of Labor & Workforce Development, 2016-2026 Occupational Employment Projections: October, 2018
NEARLY 3/4 OF THE PROJECTED CONSTRUCTION EMPLOYMENT GROWTH WILL BE IN SPECIALTY TRADE CONTRACTORS

• From 2016 to 2026, employment in the construction industry is projected to increase by 68,030 with an annual growth rate of 1.4 percent.

• Specialty Trade Contractors is projected to see the largest annual percentage growth by 2026 (1.6%), followed by construction of buildings (1.1%), and heavy and civil engineering (0.9%).

• Employment Growth:
  - Specialty trade contractors + 50,260
  - Construction of buildings + 12,050
  - Heavy and civil engineering + 5,720

Source: NJ Department of Labor & Workforce Development, NJ Long-Term Industry Projections 2016-2026: October, 2018
UTILITIES INDUSTRY CLUSTER: OCCUPATIONAL PROJECTIONS & OUTLOOK
Utilities employment projections into 2026 are estimated to remain consistent compared to the slight decline it had seen in earlier years.

Source: NJ Department of Labor & Workforce Development, Current Employment Statistics and NJ Long-Term Industry Projections 2016-2026: October, 2018
GREATER PROJECTED GROWTH FOR THE NATION THAN NEW JERSEY

• From 2016 to 2026, the United States utility industry employment is projected to increase at an annual rate of 0.1 percent. New Jersey utility employment is projected to grow at the same rate.

• Over the ten year period, utilities in the United States is projected to see a total percent increase in employment of .6 percent while New Jersey utilities is projected to grow .7 percent.

• Utility employment in the United States is projected to increase by 3,400 by 2026 while New Jersey utility employment is projected to increase 100. A majority of those gains come from Natural Gas Distribution.

NEW JERSEY CONSTRUCTION & UTILITIES INDUSTRY CLUSTER
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