Camp Hall Labor Study
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Executive Summary

Camp Hall is a world class commerce park strategically located in the greater Charleston, South Carolina region consisting of 6800 acres with over 1300 remaining developable acres. Camp Hall's initial user is Volvo Car which in 2018 opened the auto manufacturers only North American production facility and recently announced a second production line to be operation in 2021 along with training and support facilities. Additional developments in Camp Hall include the start of construction on a nearly 1 million square foot logistics facility, marketing for a section focused on providing facilities of smaller industrial users as well as a planned Village Center for employee services.

Tremendous investments have been made in Camp Hall by the South Carolina Department of Commerce, the SC Power Team, Santee Cooper, Berkeley County and many other economic development partners. The purpose of these investments is to make Camp Hall the top location for new and expanding businesses.

Due to the continued economic growth in the region a work force study was commissioned to provide an in-depth assessment of the labor shed for Camp Hall. Applied Marketing combined both workforce data along with detailed local market information to provide a more comprehensive view.

The following workforce study answers the question of current availability and affordability of a labor force for future companies locating within Camp Hall. The results provide the economic development community and prospective business with conclusive data that workers are available and affordable. A 45-minute drive time was selected as a conservative labor shed for Camp Hall.

Within the study area:

1. There are approximately 890,000 people and a workforce of approximately 431,000 within a 45-minute drive. Within a 60-minute drive the population increases to over 1,000,000 and the workforce to greater than 500,000. (Page 7)

2. There are an estimated 64,997 under employed workers of which 3,638 are in manufacturing. (Page 30)

3. The area has experienced a 19% increase in population (142,234) since 2009 with a 6.2% increase (55,232) projected over the next 5 years. (Page 25)

4. The unemployment rate is 2.9% with job growth expected to increase 10-15% over the next five years. (Page 29)

5. There is a higher percentage of individuals with a bachelor's degree (21%) or a Graduate Degree or higher (11%) than compared to the South Carolina or the national population. (Page 31)

6. There were 10,896 graduates or completions of programs from 19 higher education institutions during the past 12 months. (Page 52)

7. There are approximately 64,742 veterans with a 45-minute drive and currently 77,000 Department of Defense employees at 9 military bases within a 90-mile radius. (Page 8)

8. For the past 30 months there are on average per month 27,039 job postings and 22,409 hires. (Page 56)

9. For Front Line Supervisors, employers seeking to hire at a $25 hourly wage would draw from approximately 1,040 individuals that have similar or exact occupations. (Page 91)

10. For Production Related positions, employers seeking to hire at a $15 hourly wage would draw from approximately 16,437 individuals with similar or exact positions. (Page 93)

11. For Administrative Related positions, employers seeking to hire at $15 hourly wage would draw from approximately 39,040 individuals with similar or exact positions. (Page 96)

12. The average commute within the Charleston MSA is less than 27 minutes. (Page 22)

13. Eight (8) of the top ten (10) selling residential communities within the Charleston MSA closing in combination over 1000 houses annually are within a 30-minute drive. (Page 35)

14. Five planned residential communities within less than a 30-minute drive of Camp Hall have approximately 37,000 planned residential lots. (Page 62)

15. The six major manufacturers in the study area each employing greater than 1000 employees include The Boeing Company, Mercedes-Benz Vans, Volvo Car USA, Robert Bosch, Nucor Steel and Kapstone. (Page 45)

The following sections of the study provide the supporting information and detail for the current as well as projected workforce. The sections are Demographic Overview, Labor Market Analysis, and Labor Projections. Based on the specifics of Camp Hall and stated goals of Volvo, target industries as well as specific occupations were evaluated which include battery manufacturing, automotive-related suppliers, and back office/shared services operations. This comprehensive approach combining data as well as local market knowledge provides decision makers the detail they need to make better informed decisions.

Introduction

1.A Organization of Report

This report, broken into three parts, provides an in-depth analysis of the labor shed and provides insight into the ability of business and industry to recruit and retain employees. The three parts of this report include:

- Demographic Overview;
- Labor Market Analysis; and
- Labor Projections

Demographic Overview

This section of the report is very data driven, providing a snapshot of the current demographic conditions of the study area. Specifically, the report highlights the following demographic conditions within the study area:

- Current Population
- Veteran Population
- Race, Ethnicity, and Language Capacity
- Households
- Land Uses
- Housing
- Commuting Patterns

Labor Market Analysis

The labor market analysis section draws upon the demographic data and provides further analysis for employers. The section is subdivided into two sections: Supply of Labor and Demand for Labor.

The Supply of Labor subsection delves into population growth, labor participation data, educational attainment, and residential land uses; providing the reader a detailed investigation of the quantity and quality of workers that are available within the study area. The Demand for Labor subsection quantifies the current competition that an employer faces when locating a new business or expanding its current employment. This is undertaken by evaluating the current employment conditions, the current businesses and industries within the study area, and the surrounding commercial and industrial land uses.

Labor Projections

The final section of the report takes the data and information from the previous two sections (Demographics and Labor Market) and provides projections of the quantity and quality of the workforce in the near future. Additionally, the section provides a detailed analysis of employment for three specific industries as well as three specific occupations based on earnings. In essence, the final two subsections of this report put into practice all the previous data to show that labor is available and at what cost the labor would be to specific industries.

The Labor Projections section is subdivided into the following three subsections:

- Workforce Projections;
- Example Labor Projections for Targeted Industries; and
- Example Labor Projections by Occupation and Wage.

The final two subsections use assumptions of industries, employment figures, and hourly wages that the consultant has seen either investigate Camp Hall and/or through our work in similar areas. The data, as you will see, provides decision-makers with relevant information to make an informed decision about hiring within the study area and shows that the workforce for the specified occupations are available and accessible.

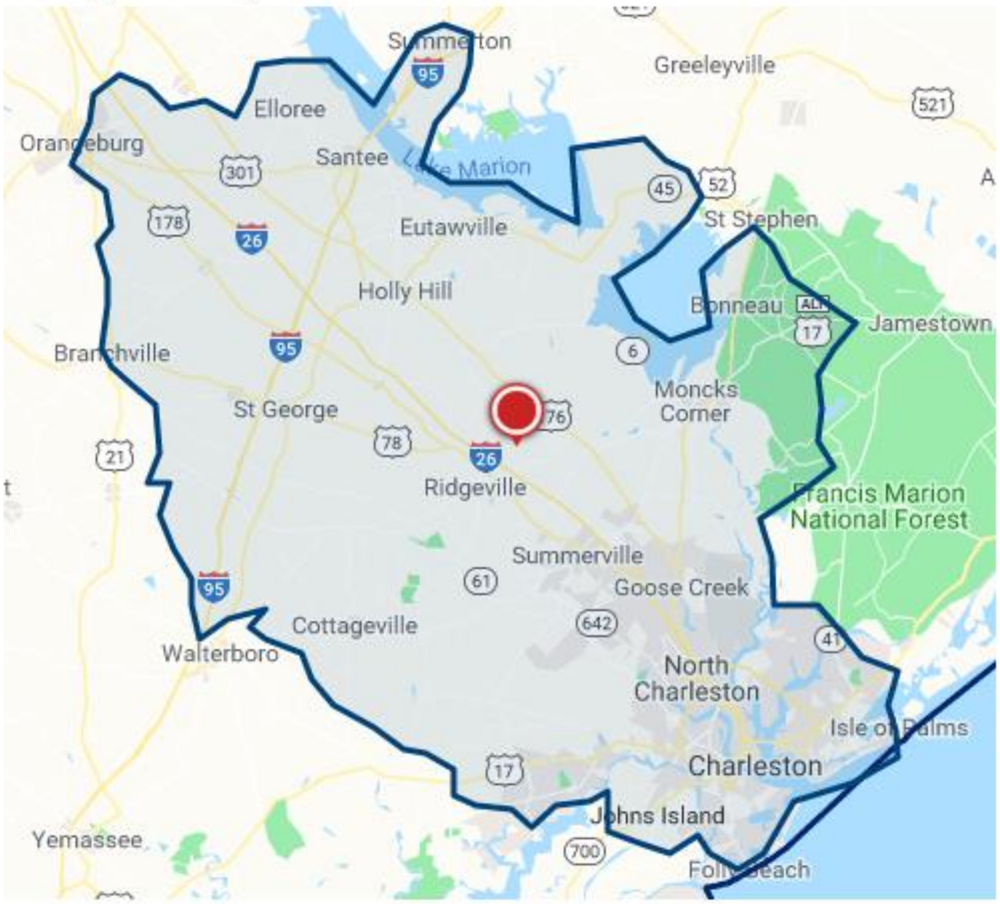
1.B Definition of Study Area

Businesses and industries are reliant upon a reliable, skilled, and affordable workforce that can and will actually show up for work on a regular basis. The location of the business provides the center of the labor shed, but other factors determine the geographic boundaries that ultimately define the area from which the business can and should recruit its workforce. Those factors include available modes of transportation, highway and interstate accessibility, proximity and access to childcare, educational facilities, and other commercial operations for employee services (such as gas stations, restaurants, etc.). The largest component of a decision for a worker to join a business is time – commute time from his/her place of residence to the employment center.

This report, applying data and information gleaned from the SC Power Team's Labor Study, utilizes a 45-minute drive time radius from the center of Camp Hall as its study area – as represented in Exhibit 1-1. This 45-minute drive time repeatedly is identified as a distance that workers are currently travelling to their employment location now. Additionally, in survey data collected for the SC Power Team Labor Study, workers most readily identified a commute time of +/- 45-minutes as an acceptable distance to travel to their employment.

Where possible, data was drawn from this 45-minute drive time, which considers speed limits and traffic on highways, interstates, and arterial roads as well as impediments to travel such as closed roads and bodies of water. When data is not available for the drive time, a combination of data and information from zip codes and/or county-level data within the study area is used.

Exhibit 1-1
Study Area Map



1.C Key Findings

The following bullet points represent many of the key findings within the study:

Demographic Key Findings

- There are approximately 890,835 people residing within the 45-minute commute-time radius, herein called the "Study Area." This accounts for 17.6% of the state of South Carolina's total population.
- Of the total population, approximately 431,480 are estimated to be in the labor force. This represents at a total of 18.4% of the state of South Carolina's workforce.
- There are approximately 64,742 veterans within the study area.
- There are approximately 77,000 Department of Defense employees (active duty or civilian) located at nine military installations within a 90-mile radius of the center of Camp Hall.
- The current average commute time for all employees within the study area is 26.8 minutes, with 63.87% of all employees within the study area having a commuting time of 30 minutes or less to their place of employment.

Labor Market Key Findings

- The study area has seen a 19% increase in population growth since 2009, compared to a state-wide population growth of 12% during the same time.
- Conservative estimates show the population within the study area continuing to grow at 6.2% over the next five years.
- The unemployment rate within the study area is 2.9% for the 1st Quarter of 2019, compared to an unemployment rate of 3.3% in South Carolina and 4.1% nationally.
- There are an estimated 64,997 underemployed workers within the study area, of which 3,638 are currently employed within the manufacturing sector.
- The study area's population has a higher percentage of individuals with a Bachelor's Degree (21%) or a Graduate Degree or Higher (11%) than compared to the state of South Carolina or the national population.
- New residential and multifamily housing units are being built at a higher rate currently than compared to the previous nineteen years and eight (8) of the top selling subdivisions in the Charleston MSA are within a 30-minute drive to Camp Hall.
- Job growth within the study area has been greater than that of South Carolina and nationwide and is projected to continue to grow an additional 10-15% over the next ten years.
- The largest employment sectors within the study area are Services and Retail Trade, accounting for 48.86% and 21.41% of the total employment respectively.
- There are six manufacturing employees within the study area that have 1,000 or more employees: KapStone Charleston Kraft, LLC, Nucor Steel, Mercedes-Benz Vans, Volvo Car USA, LLC, Robert Bosch, LLC, and The Boeing Company.
- There is approximately 67 million square feet of industrial space in the Charleston MSA, with a 7.2% vacancy rate.

- There is approximately 20 million square feet of office space in the Charleston MSA, with a 5.8% vacancy rate.
- There is approximately 21.7 million square feet of retail space in the Charleston MSA, with a 4.4% vacancy rate.

Labor Projections Key Findings

- There were 10,896 graduates or completions of programs from 19 educational institutions within the study area.
- There was an average of 27,039 job postings per month and an average of 22,409 hires within the study area over the previous 30-month period.
- The most frequent job postings were for Heavy and Tractor-Trailer Truck Drivers (3,333), Registered Nurses (1,529), and First-Line Supervisors of Retail Sales Workers (1,013).
- Over the previous 12 months, there have been 20 economic development announcements, representing a total of $1.137 billion in new capital investment and a prediction to hire an additional 2,127 employees over the next one to five years.
- There are approximately 37,000 planned residential lots within four residential developments, all within a 30-minute commute time.
- Employers looking to hire Front-Line Supervisors at or above an average hourly wage of $25 per hour, would likely be able to draw from approximately 1,040 individuals within the study area that currently have similar or exact occupations.
- Employers looking to hire Production-Relations positions at or above an average hourly wage of $15 per hour would likely be able to draw from approximately 16,437 individuals within the study area that currently have similar or exact occupations.
- Employers looking to hire Administrative-Related positions at or above an average hourly wage of $15 per hour would likely be able to draw from approximately 39,040 individuals within the study area that currently have similar or exact occupations.

1.D Data Sources

This report relies on a host of data sources which provide both a snapshot of the current conditions within the study area as well as projections based on historical data and conservative estimates. Additionally, Applied Marketing and its consulting team has significant local experience to draw upon in compiling this report. The most frequently used data sources include:

- EMSI: EMSI is a labor market analytics firm that uses data to connect people, education, and employers
- US Census
- South Carolina Power Team: The SC Power Team recently conducted a statewide labor analysis, which provided invaluable survey data from employers as well as employees.
- Hargett Consulting: Hargett Consulting provides Santee Cooper with quarterly real estate market information (industrial, retail, and office) for the greater Charleston market.

Whenever possible, the sources for all data is cited and is utilized in its whole, with Applied Marketing's local knowledge, to provide recommendations and conclusions based on the availability and affordability of labor within the study area.

Demographic Overview

2.A Demographic Portrait

Demographics play a key role in the growth and quality of the labor force and thus to a large extent determine the growth potential of the economy and its future employment. A selection of characteristics of a 45-minute drive time from the center of Camp Hall is presented in Exhibit 2.1.

The total population of the area within a 45-minute drive time from center of Camp Hall is 890,835 in 335,895 households, accounting for approximately 17.6% of the population of the state of South Carolina. The median age of 37.2 is slightly younger than that of South Carolina's total median age of 38.8 years.

Exhibit 2-1
Demographic and Income Characteristics 2019

	Drive Time 45-Minute
Population	890,835
Median Age	37.2
Households	335,895
Average Household Income	$79,754
Per Capita Income	$27,351
Labor Force	431,480
Veterans	64,742
Mean Commute Time (minutes)	26.8
Remote Workers	4,934
Housing Units	363,086

Sources: EMSI, ESRI, & US Census

The average household income within the study area is $79,754 and the per capita income is $27,351. The study area's per capita income is lower than that of the total State's per capita income of $27,909.

There are 431,480 individuals within the labor force in the study area, which represents 18.4% of the State's total labor force. There are approximately 64,742 veterans within the labor study area, which is approximately 17.3% of the State's veteran population.

There are approximately 4,934 remote workers within a 45-minute drive time of Camp Hall and the mean commute time for workers within the study area is 26.8 minutes.

Further analysis and evaluation of the socio-economic characteristics are detailed on the following pages.

2.A.1 Current Population

Population dynamics are important to resource allocation and future planning and development in an area. The size of the population, along with its growth and/or decline, will affect an area's standard of living, levels of consumption, environmental footprint, infrastructure needs, economic development, and more.

The current population within the study area is estimated to be 890,835, which equates to 17.6% of the State of South Carolina's total population.

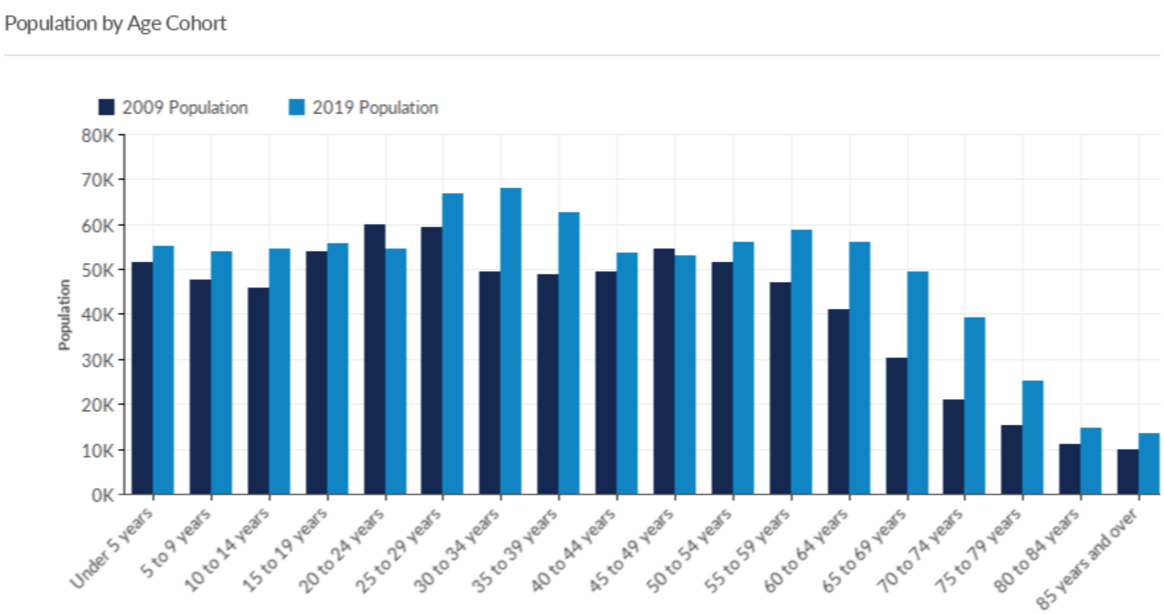
Age distribution is one way to determine whether the population within an area is expected to grow, excluding all other factors. A large number of children in an area indicate an expected increase in population, while small numbers signify an expected decline. It is also one way of determining whether the population of an area is aging, which will affect the future needs of the area.

The age distribution of the study area's population is displayed in Exhibit 2.2.

Approximately 66% of the resident population is of working age, between the ages of 15 and 65 years. Seniors (those over the age of 64) account for 16% of the population and children (under the age of 15) account for 18% of the study area population.

The study area saw an overall 19% increase, or 142,234, in the total population, with the largest growth being in the senior population group (65+ years old), which saw a 10-year growth of 62%. The children population segment grew by 13% and the working age (15-64) group grew by 14%, or 52,989, over the past 10 years.

Exhibit 2-2: Population by Age Cohort



**Source: EMSI*

2.A.2 Veteran Population

Veteran population in an area can be a significant asset for a business or industry when recruiting and maintaining labor. Integrating and engaging veterans in the workforce can add substantial value to an organization according to a report sponsored by USAA and developed in partnership with NAVSO and the SHRM Foundation, with benefits to the employer being:

- Improved performance and productivity that will directly affect the bottom line;
- Create a more flexible and strategically focused workforce; and
- Increased diversity.

This report includes veteran population statistics at the County level, due to the inability to obtain zip code-level data; therefore, the statistics shown in Exhibit 2-3 represent information from Berkeley County, Charleston County, and Dorchester County.

Exhibit 2-3
Veteran Population Demographics

	Berkeley County	Charleston County	Dorchester County	Total
Total Veterans	21,270	28,323	15,149	64,742
Male	18,452	25,630	13,262	57,344
Female	2,818	2,693	1,887	7,398
Age Cohort				
18-64	14,512	15,825	10,373	40,710
65+	6,757	12,498	4,777	24,032
Median Income	$43,571	$41,527	$48,093	$44,397
				*Average
Educational Attainment				
High School Graduate	5,407	7,095	3,666	16,168
Some College to Graduate Degree	14,409	19,593	10,663	44,665

*Source: US Census

There are approximately 64,742 in the 3-county region surrounding the study area, with the majority (88.5%) being male and the remaining 11.5% being female. Of the total veteran population, 63% are within the working ages (18-64 years-old) and 94% of the total veteran population has at least a high school diploma or equivalency. Furthermore, 69% of the veterans have some level of college experience, including technical, associates, bachelors, and graduate degrees.

While it is anticipated that the veteran population will continue to shrink across the US, from an estimated 18% of the total US population in 1980 to 7% in 2016[1], there are nine military installations within a 90-mile radius of Camp Hall:

- Charleston Air Force Base, Charleston, SC
- Shaw Air Force Base, Sumter, SC
- Fort Jackson Army Base, Columbia, SC
- Marine Corps Air Station Beaufort, Beaufort, SC
- Marine Corp Recruit Depot, Parris Island, SC
- Naval Hospital Beaufort, Beaufort, SC
- Naval Hospital Charleston, North Charleston, SC
- Naval Weapons Station, Goose Creek, SC
- Coast Guard Sector Charleston, Charleston, SC

These installations employ approximately 77,000 active duty and civilian contractors, which could be a tremendous pool from which to recruit an above average trained, reliable, stable workforce. Per the US Department of Defense, approximately 10-15% of active duty servicemen and women separate from the military each year, which would equate to approximately 7,700 to 10,780 veterans and/or civilian individuals currently located within the study area that could be a pool from which new and existing employers could pull from for employment.

[1] "The Changing Face of America's Veteran Population," Kristen Bialik, PewResearch.org.

2.A.3 Race, Ethnicity, and Language Capability

Ethnicity and race are two distinct classifications. There are several characteristics that may be common among a population within the same race and ethnicity, including language, educational attainment, unemployment, size of household, and other cultural, economic, and social characteristics. As such, we identify both classifications for the resident population of the study area.

Race is a social definition used in the U.S. as a means of self-identification. This social construct of race does not incorporate biology, anthropology or genetics into its definition. There are seven racial categories used by the Census: White, Black or African-American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Two or More Races, and Some Other Race.

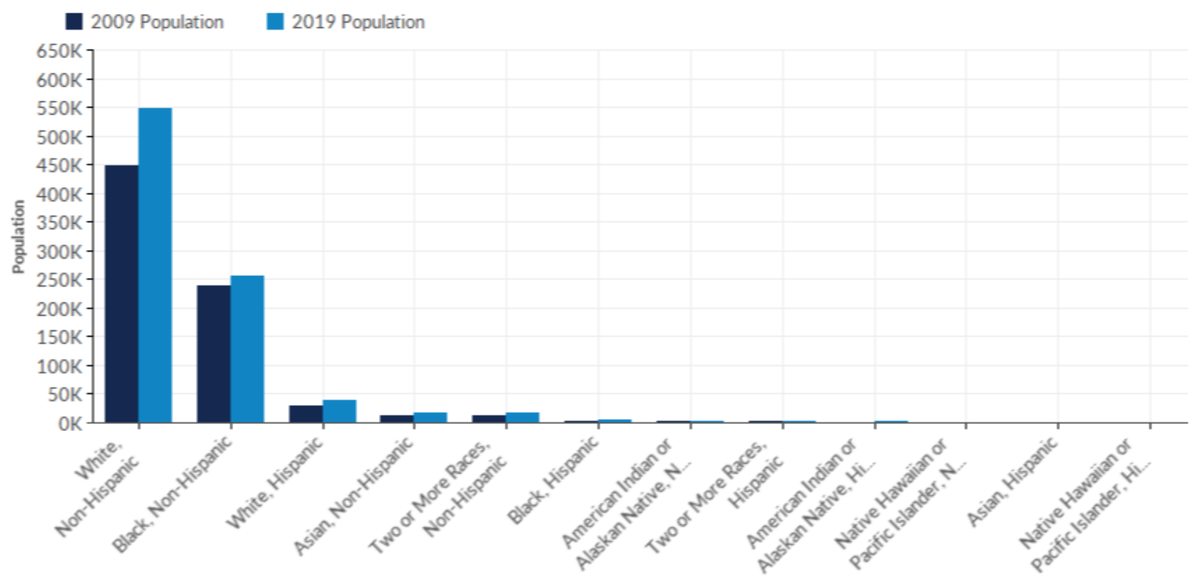
Ethnicity is a shared cultural identity related to origin and considers such things as heritage, lineage, nationality, and ancestral country of birth. Individuals who identify as being of Hispanic origin can self-identify as any race.

There is widespread confusion over the distinction between race and ethnicity. Some Census respondents who identify as of Hispanic Origin do not identify with the listed racial categories. Therefore, they may opt to select Some Other Race, which may result in an overstatement of this particular classification.

Race and ethnicity in the study area is shown in Exhibit 2-4, illustrating that while the study area is not very diverse, several racial and ethnic groups have grown at a considerable pace over the past 10 years. The classifications *Asian Non-Hispanic*, *Two or more Races Non-Hispanic, and Two or more Races Hispanic* grew by 54%, 55%, and 56% respectively over the previous 10 years.

Exhibit 2-4: Population by Race/Ethnicity

Population by Race/Ethnicity



Race/Ethnicity		2009 Population	2019 Population	Change	% Change	2009 % of Cohort
White, Non-Hispanic		447,630	547,085	99,455	22%	59.83%
Black, Non-Hispanic		239,149	256,491	17,342	7%	31.96%
White, Hispanic		28,759	39,302	10,543	37%	3.84%
Asian, Non-Hispanic		11,370	17,474	6,104	54%	1.52%
Two or More Races, Non-Hispanic		11,248	17,454	6,206	55%	1.50%
Black, Hispanic		3,296	4,551	1,255	38%	0.44%
American Indian or Alaskan Native, Non-Hispanic		3,059	3,529	470	15%	0.41%
Two or More Races, Hispanic		1,312	2,053	741	56%	0.18%
American Indian or Alaskan Native, Hispanic		1,204	1,383	179	15%	0.16%
Native Hawaiian or Pacific Islander, Non-Hispanic		530	667	137	26%	0.07%
Asian, Hispanic		388	549	161	41%	0.05%
Native Hawaiian or Pacific Islander, Hispanic		250	296	46	18%	0.03%
	Total	748,193	890,835	142,642	19%	100.00%

**Source: EMSI*

Language Ability

Language ability is an important aspect of employment and economic participation. Language spoken at home in the study area are presented in Exhibit 2-5, with the most recent data available from the US Census in 2017. Other than English, Spanish is the most frequently language spoken at home, with a total of 28,402 (or 4.3% of the total population within the three counties) individuals responding. Of that number, over 20,000 are between the ages of 18-64.

Exhibit 2-5
Languages Other than English Spoken at Home

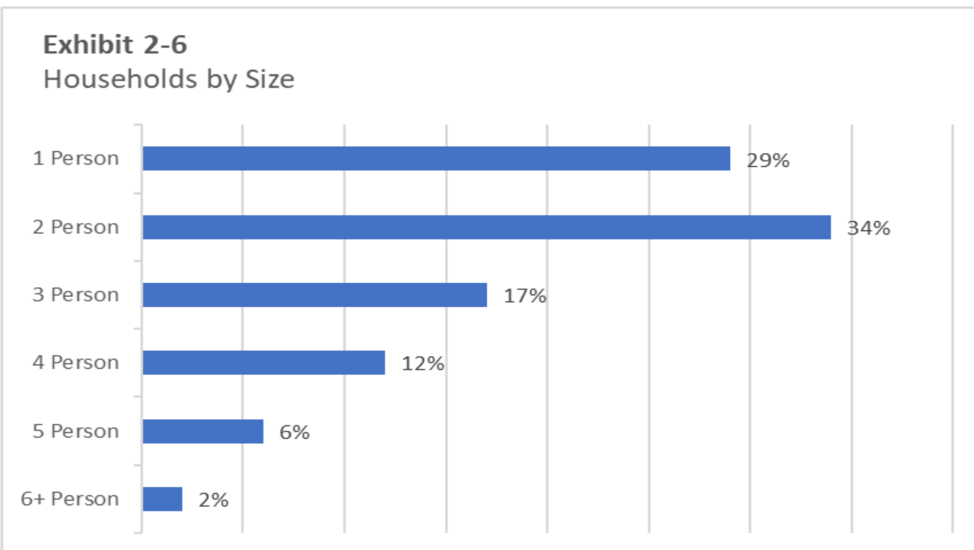
Lanugage Spoken		Berkeley County	Charleston County	Dorchester County	Total
Spanish		**9,187**	**14,410**	**4,805**	**28,402**
	5-17 Years Old	2,259	3,500	1,230	6,989
	18-64 Years Old	6,532	10,271	3,269	20,072
	65+ Years Old	396	639	306	1,341
Other Indo-European languages		**2,309**	**5,457**	**1,974**	**9,740**
	5-17 Years Old	233	651	246	1,130
	18-64 Years Old	1,777	3,899	1,438	7,114
	65+ Years Old	299	907	290	1,496
Asian & Pacific Island languages		**2,865**	**3,231**	**1,896**	**7,992**
	5-17 Years Old	378	256	398	1,032
	18-64 Years Old	1,837	2,418	1,377	5,632
	65+ Years Old	650	557	121	1,328
Other languages		**360**	**1,199**	**211**	**1,770**
	5-17 Years Old	136	302	46	484
	18-64 Years Old	224	846	157	1,227
	65+ Years Old	0	51	8	59
**Source: US Census*					

2.A.4 Households

Household Size

The size of households is another indicator of the standard of living within an area. Often, lower income areas will have a higher share of large sized households as people reside together to share fixed household expenses such as rent and utilities. A large representation of single person households may indicate an area with a population that is younger, with fewer children or with higher levels of educational attainment.

Exhibit 2-6 shows households by size within the study area of Camp Hall. One-person and two-person households account for approximately 63% of all households in the study area. However, there is also a large portion of the households that have four or more people residing within the home – 20%. For comparison, the national average household size in 2018 is 2.53 persons.

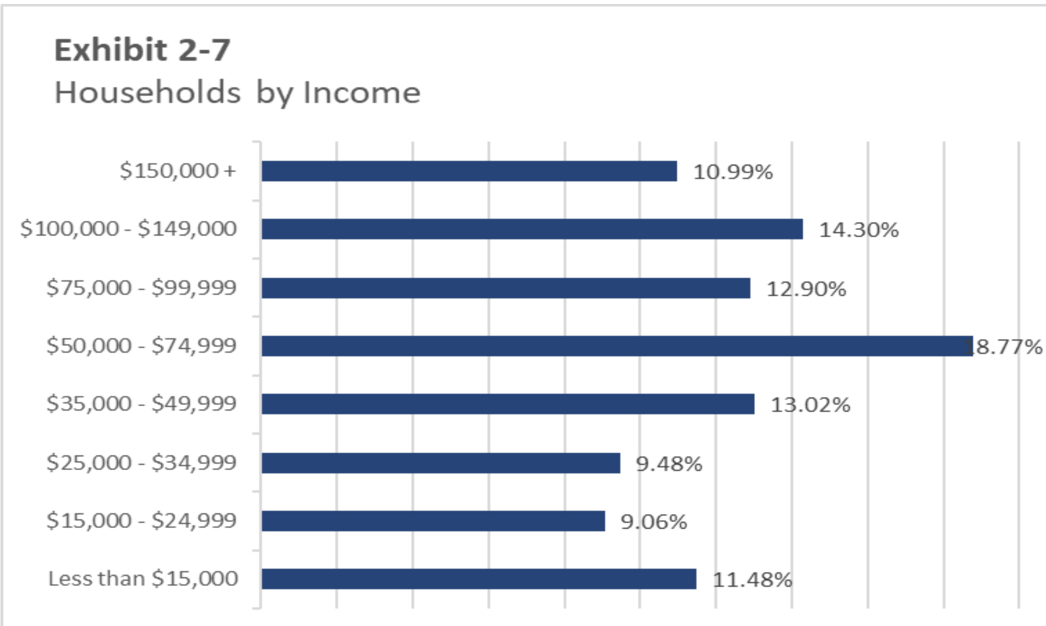


Source: EMSI

Household Income

Median household income is the midpoint value of all household income levels within an area, dividing them into two equal groups. Where average income figures can be skewed by the presence of a few extremely high or low values, the median income figure is not, and therefore is viewed as more representative of an area's income. Median household income within the study area is estimated to be $57,755.

The distribution of households by income in the study area in 2017 is shown in Exhibit 2-7. As shown in the Exhibit, approximately 43% of all households within the study area earn less than $50,000, while just over 25% earn $100,000 or more.

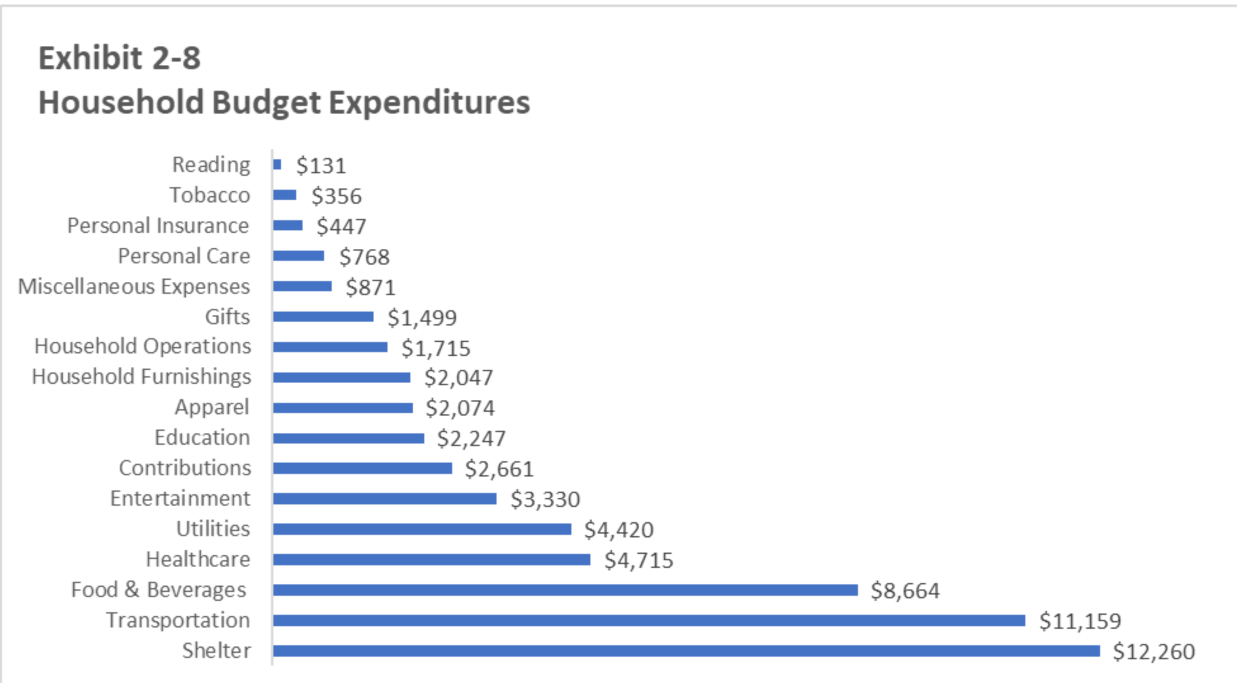


Source: EMSI

Household Expenditures

Household expenditures are related to household incomes, not only in magnitude but also in composition. Households with lower incomes tend to spend a larger percentage on necessities such as food and rent and have less disposable income for luxury items such as travel and leisure activities, especially relevant for regions with much higher average household incomes.

Exhibit 2-8 shows the estimated household expenditures within the study area. Not surprisingly, Shelter, which includes the total dwelling costs of rent or mortgage, property taxes, and interest, is the highest annual household expenditure at $12,260 (20.65% of total annual household expenditures). Transportation, which includes expenses such as vehicle purchases, gas, oil, maintenance, repairs, insurance, and public transportation costs, ranks as the second highest household expenditure of $11,159 (18.8% of total annual household expenditures).



Source: EMSI

2.A.5 Land Use

An examination of a region's land use according to zoning can give an illustration of where certain types of activity are located. It identifies the location of residential areas (where potential workforce is located), and commercial and industrial zoning (where industry and businesses are located). Greater levels of detail reveal specific characteristics, such as population density or where retail operations that serve the resident population may be located.

Additionally, prevailing zoning provides a realistic picture of the type of development that could take place within an area. For example, an area that is mostly zoned as residential will have limited opportunities for growth of industry. Similarly, an area that is adjacent to land zoned for heavy industrial uses will not be feasible for residential development, as often the traffic noise and congestion that surrounds businesses of this type are in direct contrast to what most homeowners are looking for when buying a residence.

Exhibit 2-9 is a region-wide evaluation of current and proposed future land uses, developed by the Berkeley-Charleston-Dorchester Council of Governments. As one will see, there are wide areas of land that are either in conservation and/or protected areas or are undeveloped. There are several corridors of development within the region, primarily along Interstate 26 that include residential, commercial, and industrial uses. Exhibit 2-10 is a more focused look at the zoning classifications immediately surrounding Camp Hall.

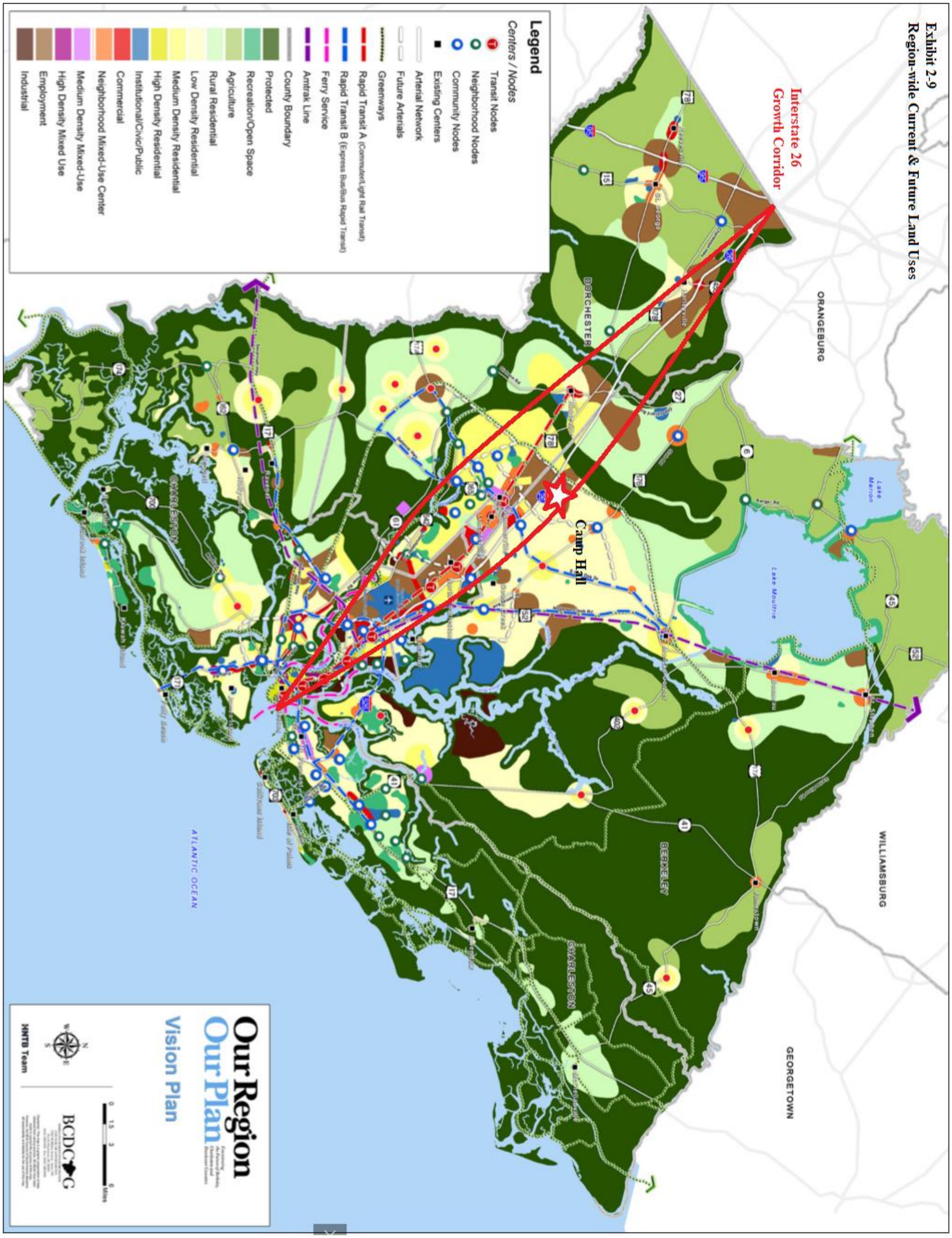
Land zoned for residential purposes is set aside for single family residences, multi-unit dwellings and mobile homes, or a combination of these.

Land zoned for commercial and services uses are predominantly for businesses which provide goods and services to resident populations, such as grocery and health care stores, restaurants, hotels and motels, retail stores, gas stations, banks, medical services, laundry services, insurance agents, and so on. Also included are government and public service offices, such as police and fire stations, military facilities, churches, and all levels of public and private schooling facilities.

Land zoned for industrial uses are areas where manufacturing, assembly, processing, packaging or storage of products occurs. This includes light industrial, such as design, assembly, packaging and storage activities, and research and development labs; heavy industrial uses which are more traditional processors of raw materials such as refineries, foundries, smelters, chemical refineries; and warehousing and logistics-related facilities.

The zoning classification for Camp Hall, as indicated on Exhibit 2-10, shows that it is designated as a PD-OP/IP (Planned Development – Office Park/Industrial Park), which allows for flexible industrial and office developments.

Exhibit 2-11 takes a larger view of the area surrounding Camp Hall and provides the location for several residential developments as well as surrounding industrial, office, and business parks. The map provides the reader with a sense of scale in how large Camp Hall is as well as the rapid development, both in terms of residential as well as industrial, occurring in proximity to Camp Hall.



APPLIEDMARKETING

Exhibit 2-10
Zoning Classifications Surrounding Camp Hall

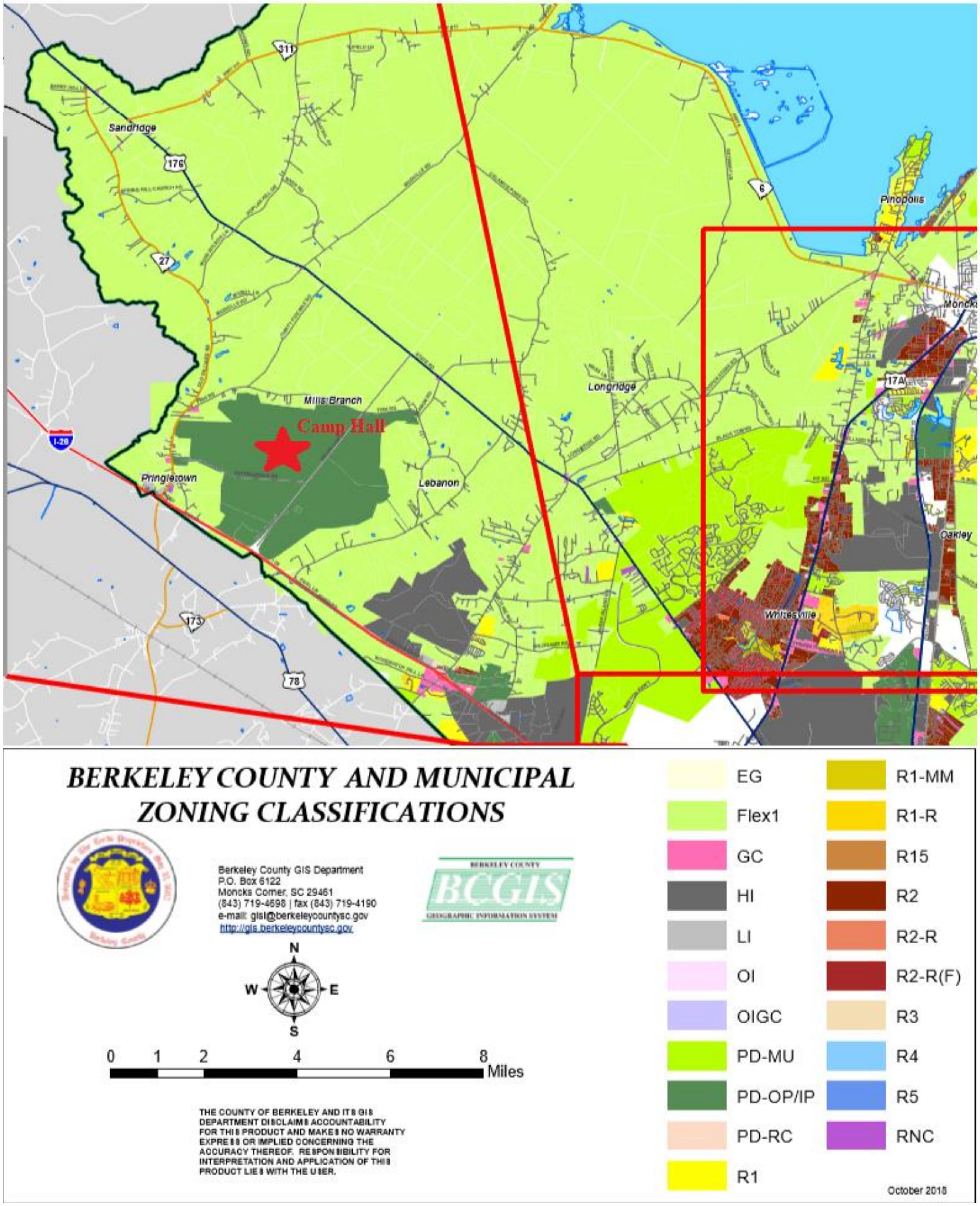
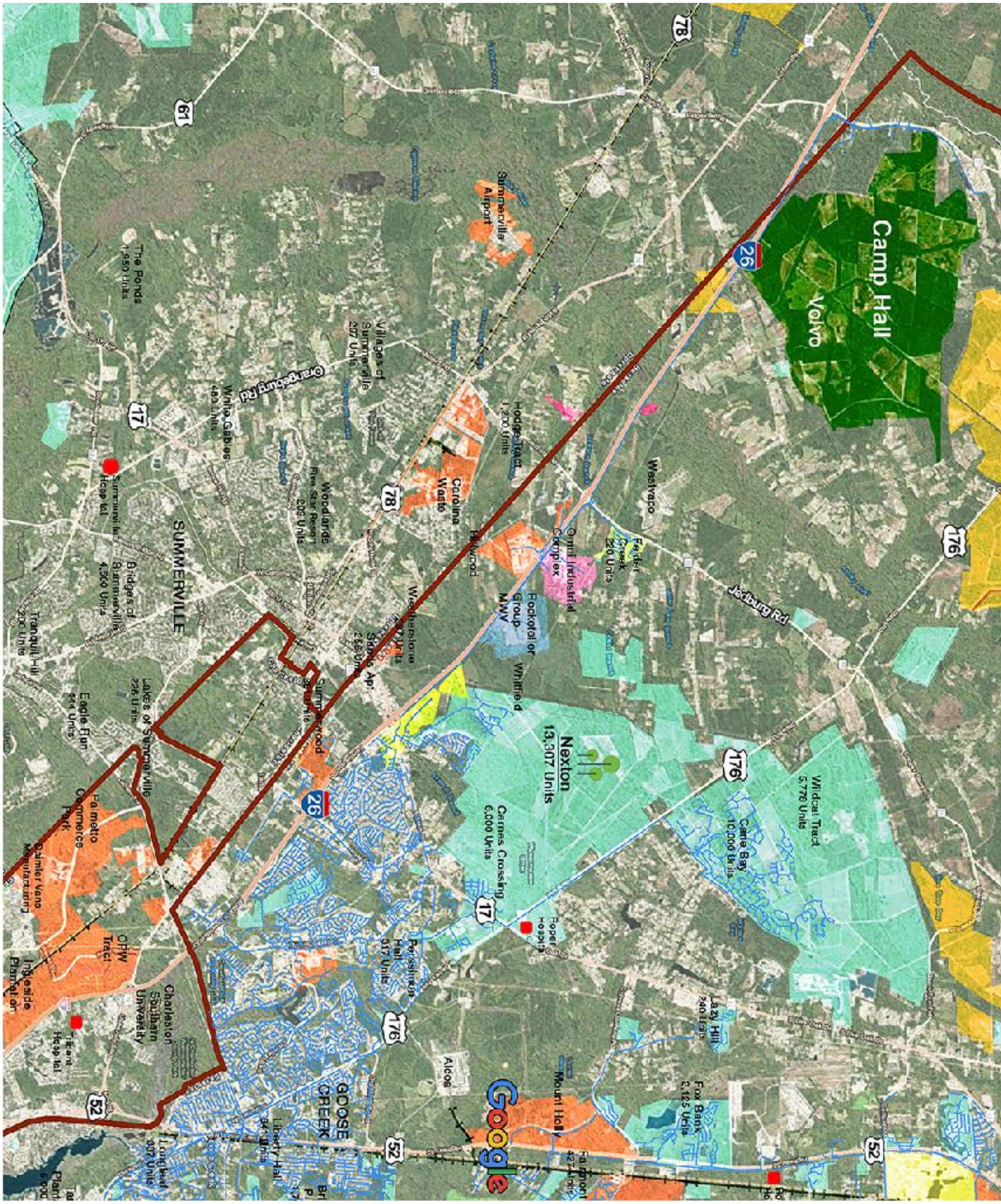


Exhibit 2-11
Current Regional Developments



Source: Santee Cooper, Seamon Whiteside

APPLIEDMARKETING

2.A.6 Housing

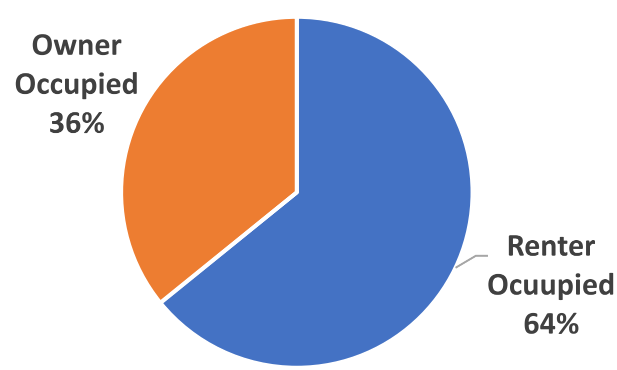
Housing represents the largest component of a household's budget, and, if owned, is usually the family's most valuable asset. Beyond housing's impact on individual balance sheets, however, the characteristics of a community's housing can be revealing.

The tenure and occupancy status of homes, along with their values, provides information on their affordability. It can also yield further insight into the resident population. For example, a large number of renters in an area with high-valued housing units may be due to the residents' inability to afford local homes. A large number of rental units in an area with moderately valued housing units may be due to a younger and/or less affluent demographic. Often, higher levels of homeownership lead to neighborhood stability, since there is lower turnover of residents.

Additionally, the tenure characteristics of the local housing stock has implications for redevelopment efforts as gentrification can cause property values to rise above the level of affordability for residents who rent, leading to displacement and a change in the characteristics of the local population.

In 2017, there were a total of 290,586 housing units in the study area, with the breakdown of owner-occupied and renter-occupied shown in Exhibit 2-12.

Exhbit 2-12
Housing Units Occupancy Type



Source: US Census

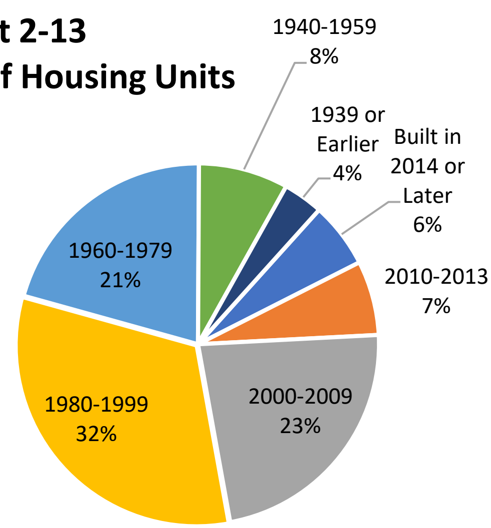
Age of Housing Stock

The age of the housing stock in an area can give insight to the quality of housing. Older units require more care and may still contain building materials used in the past that are now known to be a hazard, such as lead-based paint and asbestos. Older housing in poor condition is often inhabited by lower income residents, who can little afford the needed upkeep.

Exhibit 2-13 shows the age distribution of the housing stock in the study area in 2017 (per the US Census: American Community Survey estimate).

Just over half of all housing stock within the study area was built between 1960-1999; while another 36% has been built since 2000.

Exhbit 2-13
Age of Housing Units



Source: US Census

As shown in Exhibit 2-11: Current Regional Developments, there are several large residential developments occurring within the study area. These new developments, resulting in an average of over 4,000 new residential permits each year, will continue to add more housing units within the study area and will continue to shift the age of the housing stock to more recent construction.

Housing Units in Structure

The number of units in a structure provides insight into the composition of the housing stock, identifying single family homes, multifamily homes, mobile homes and other units that provide shelter to the resident population.

Exhibit 2-14 shows the share of housing stock in the study area by the number of units in the structure.

Sixty-eight percent of all housing units in the study area are single-family homes; twenty-three percent are apartments, and the remaining nine percent are mobile homes or some other type of housing.

Exhibit 2-14
Housing Units in Structure

Source: US Census

Owner-Occupied Units

As shown in Exhibit 2-12, 36% of the total housing units are owner-occupied. The value of these homes varies from less than $50,000 to over $1 million. Exhibit 2-15 displays the value distribution of owner-occupied housing units in the study area.

Seventy-one percent of the owner-occupied housing stock in valued between $100,000 and $499,999. Thirteen percent of owner-occupied housing stock is valued at less than $100,000 and fifteen percent of the owner-occupied housing stock is valued above $500,000.

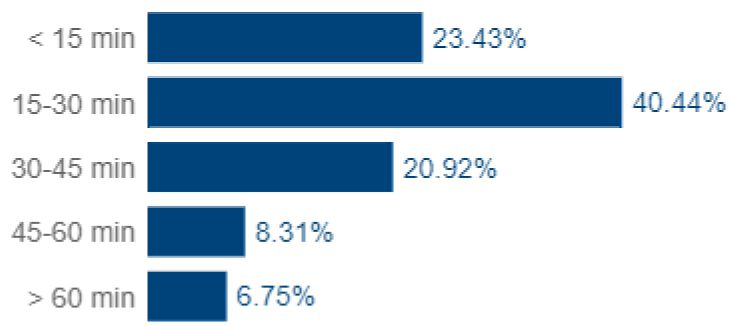
Exhibit 2-15		
Value of Owner-Occupied Housing		
	Total	**% of Total**
Less than $50,000	11,164	6%
$50,000 to $99,999	13,153	7%
$100,000 to $299,999	90,651	49%
$300,000 to $499,999	41,901	22%
$500,000 to $749,999	15,291	8%
$750,000 to $999,999	6,494	3%
$1M +	7,767	4%
Total Owner-Occupied Housing Units	**186,421**	**100%**

Source: US Census

2.A.7 Commuting & Traffic Patterns

Working residents make a conscious decision about the length of the commute they are willing to undertake to a potential place of employment, which may in turn depend on their means of transportation. These decisions are critical to their quality of life and standard of living. The time to work, the cost of transportation alternatives, and the potential wages at prospective job locations all factor into employment decisions.

Exhibit 2-16
Average Commute Time for all Employees

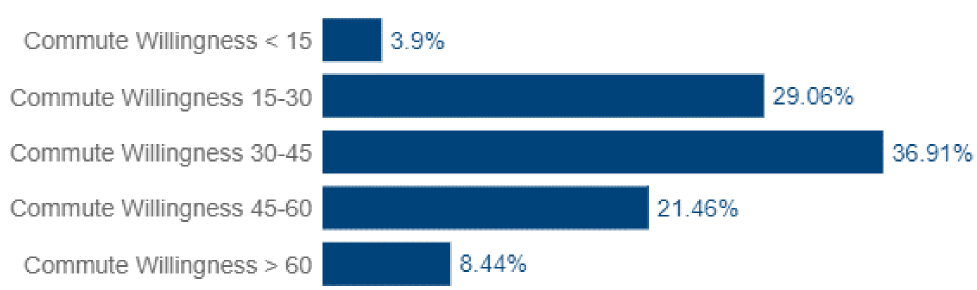


**Source: SC Power Team Labor Study*

Travel time to work is typically the result of a combination of distance to the job and means of transportation. Exhibit 2-16 shows the average commuting time for all employees within the study area, which shows that 63% of all residents commute 30 minutes or less to their employment, while 85% commute 45 minutes or less. This is similar to the commute time for all South Carolinians, as 69% commute 30 minutes or less and 88% commute 45 minutes or less to their place of employment. This data further supports our study area limits of a 45-minute drive time radius.

Another interesting piece of information gleaned from the Site Selection Group's (a site selection consulting firm, headquartered in Dallas, TX that was engaged by the SC Power Team to provide a comprehensive labor analysis across the state of South Carolina) work with the SC Power Team is survey data from residents, employees, and employers that show a much higher willingness to commute than what is occurring. Exhibit 2-17 shows a breakdown of the report's findings related to willingness to commute.

Exhibit 2-17
Time Willing to Commute

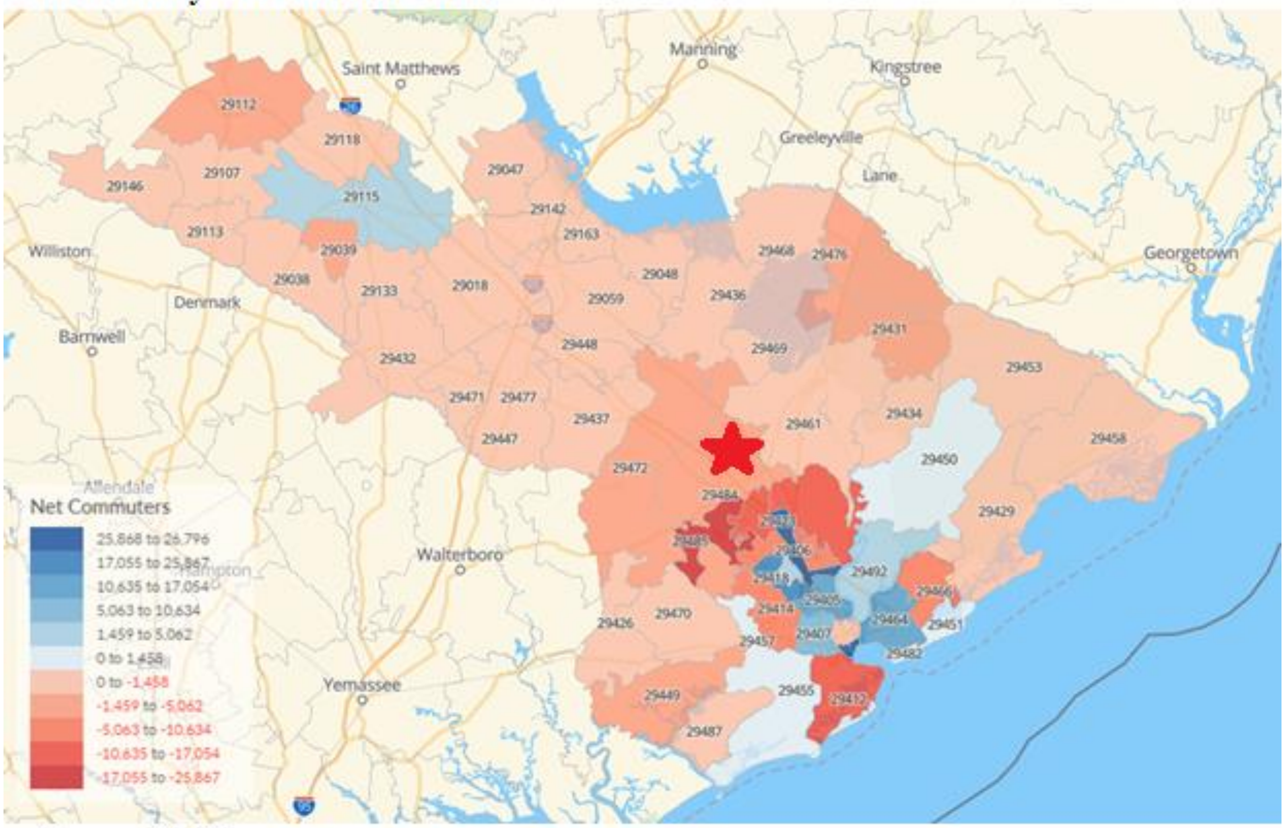


**Source: SC Power Team Labor Study*

As seen in Exhibit 2-16, a far larger segment of residents within the study area are willing to commute greater distances than what they currently commute – with 30% of residents reporting that they would be willing to commute more than 45-minutes for employment.

The working residents of the study area often find jobs across the jurisdictional lines of municipalities, counties, and even states. The geographic dispersion of working residents to their employment is called the commute shed. Exhibit 2-18 shows the commute shed for the working residents within the study area.

Exhibit 2-18
Labor Study Area Commute Shed



Source: EMSI

The map is divided by zip codes and represents the study area. The blue-colored areas represent in-migration of workers with the darkest blue equating to the highest level of in-migration. Whereas the red is indicative of workers leaving their residential zip code for employment in another zip code, with the darker red indicating the highest number of workers leaving their residential zip code for another zip code.

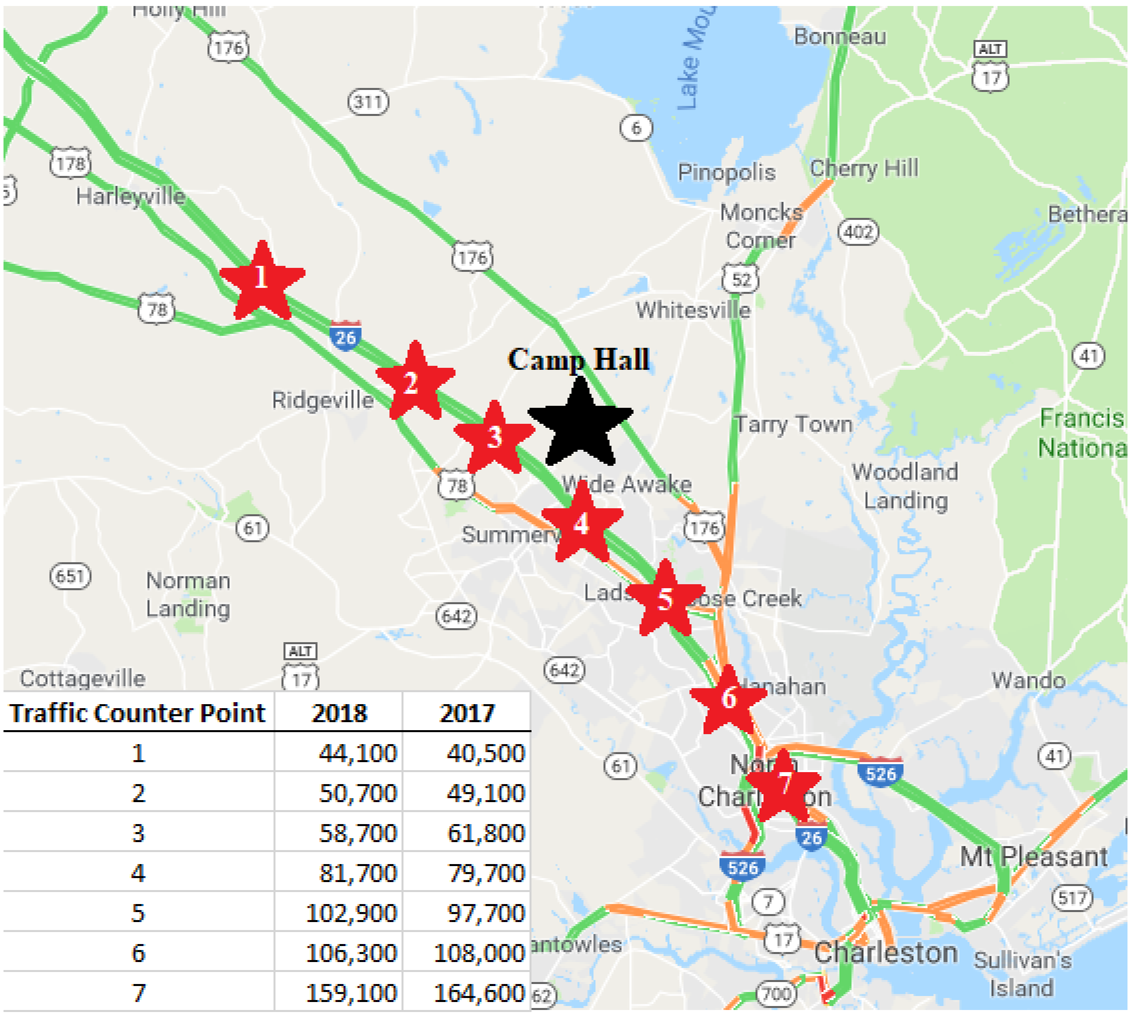
What can be seen is that while there is a large population base in and immediately surrounding the Charleston peninsula, a large portion of the resident population from outside the peninsula commutes into that specific portion of the study area.

APPLIED MARKETING

Traffic Flow

One major benefit of Camp Hall is its location in relation to the traffic patterns of Interstate 26. As shown in Exhibit 2-19, traffic builds along I-26 from Station #1 (located to the northwest of Camp Hall) with 44,100 average daily vehicles in 2018 Station #7 (located at the intersection of Interstates 26 and 526, near the Charleston peninsula) with 159,100 average daily vehicles in 2018. This traffic pattern would allow employees the benefit of commuting against the major traffic patterns, from residential developments to the south and southeast within the study area, to potential employment within Camp Hall.

Exhibit 2-19
Traffic Patterns



Traffic Counter Point	2018	2017
1	44,100	40,500
2	50,700	49,100
3	58,700	61,800
4	81,700	79,700
5	102,900	97,700
6	106,300	108,000
7	159,100	164,600

Source: SC Department of Transportation

Labor Market Analysis

APPLIEDMARKETING

3.A Supply of Labor

Labor market analysis begins with an examination of the current and projected local supply of labor. Local supply is determined by population growth (including migration), residential land availability and location, and the characteristics of the local labor force.

3.A.1 Population Growth

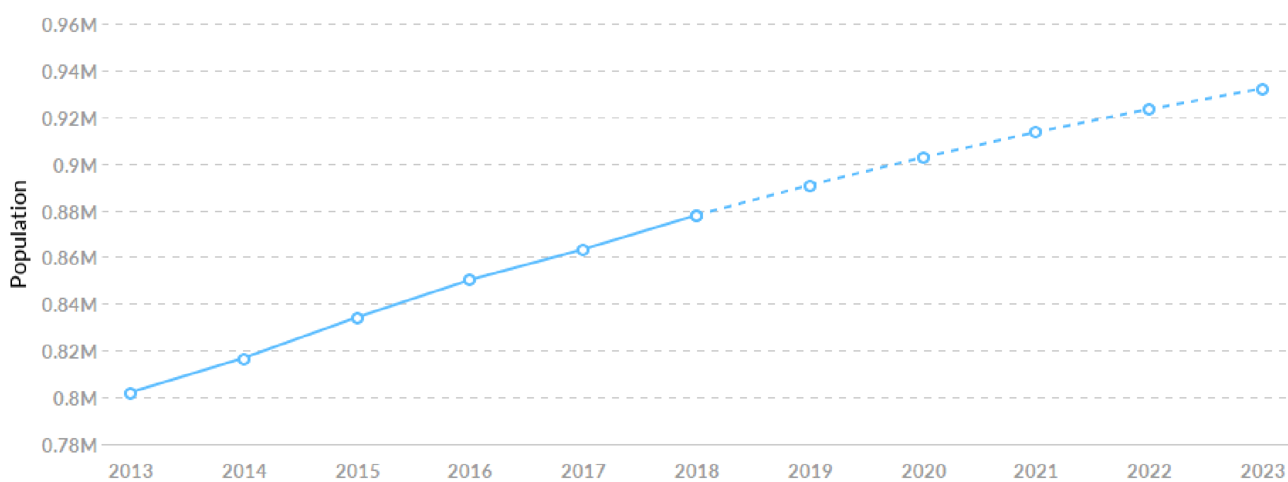
Population growth is determined by expected net migration and the birth and death rates of the current population. Knowing how a population is projected to grow can help to determine what a specified area will require in the future in terms of products and services, and what resources the region will provide to industry in terms of human capital.

The study area has seen tremendous population growth since 2009, with a 19% increase over the ten years, compared to 12% state-wide growth and 8% nationwide growth. Since 2013, the population within the study area has grown by an estimated 9.5% (75,872 people) and is expected to continue to grow by a very conservative estimate of 6.2% between 2018 to 2023, adding an additional 54,228 people. Exhibit 3-1 shows the population trend line of the study area from 2013 to 2018, with an estimated growth pattern to 2023.

Exhibit 3-1

Population Trends

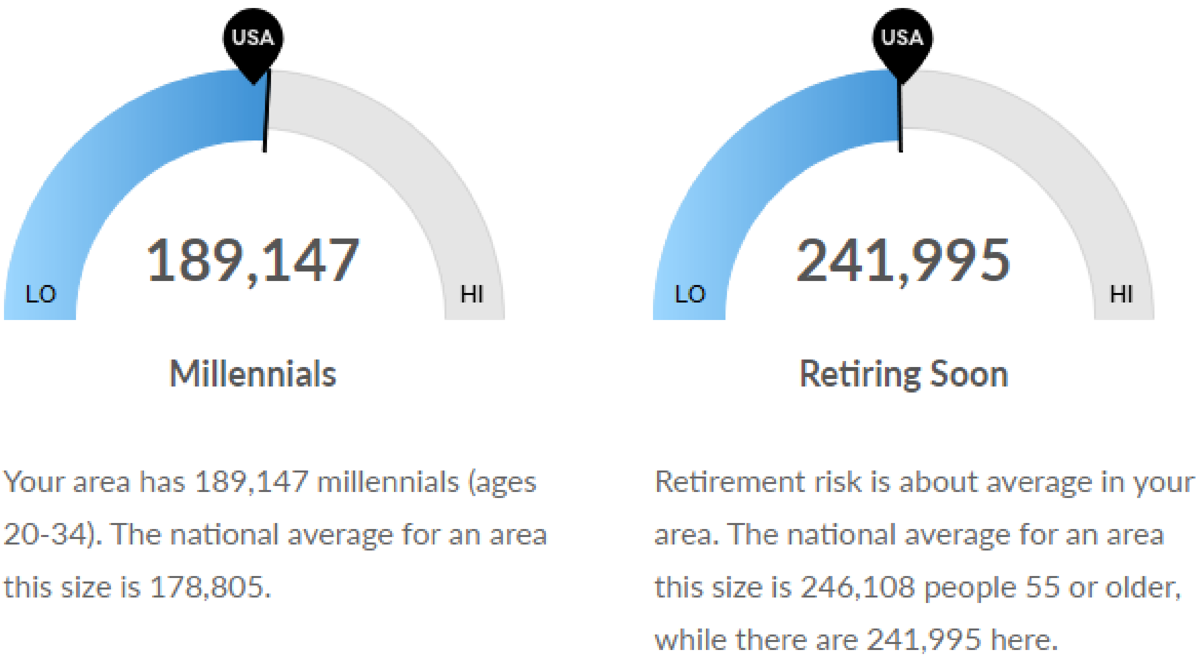
As of 2018 the region's population **increased by 9.5%** since 2013, growing by 75,872. Population is expected to **increase by 6.2%** between 2018 and 2023, adding 54,228.



Source: EMSI

Two other characteristics of the study area's population growth focus on that of millennials, defined as individuals between the ages of 20-34) and retirement age (defined as individuals aged 55 or older). The study area has a slightly higher than national average number of millennials (189,147 compared to the national average of 178,805 for a similar area) and is close to the national average in terms of retirement age (241,995 compared to a national average of 246,108 for a similar sized area). Exhibit 3-2 shows the millennial and retirement age breakdown compared to national averages. While there are more individuals in the "retiring soon" category, a higher than average millennial population should provide potential employers with an expectation of being able to recruit and retain younger employees for their operation than other locations.

Exhibit 3-2: Millennials & Retiring Soon Comparison



Source: EMSI

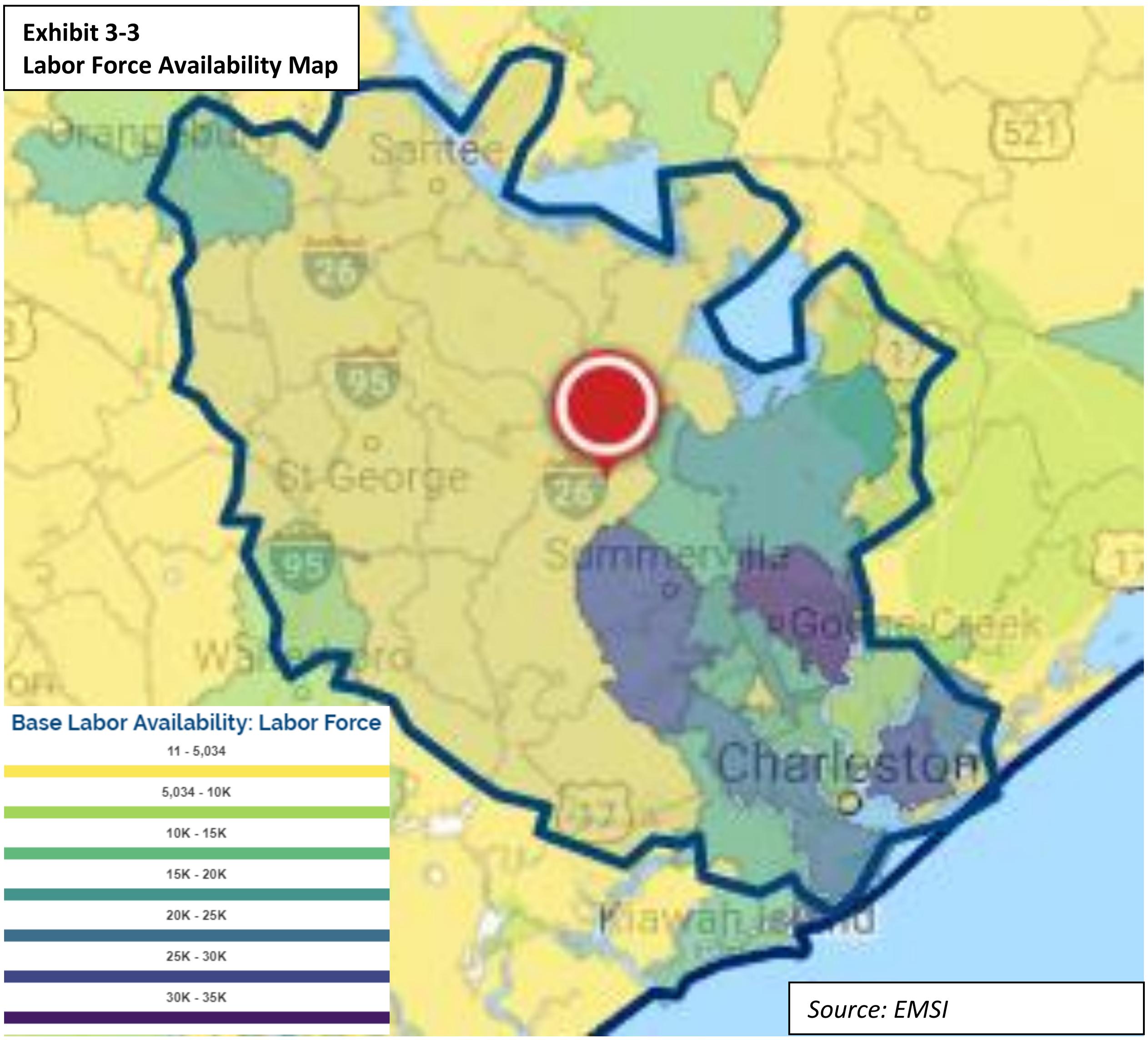
3.A.2 Labor Force, Participation Rates, Unemployment, & Underemployment

Employment and employment growth are based on labor force growth, which is a consequence of both changes in population and in labor force participation rates.

Not everyone in the working-age population will be a labor force participant. The labor force is the population of working-aged individuals (16 years and older) in an area who are currently employed or who are unemployed but still actively seeking work. Individuals not actively looking for work are excluded from the count. These include students, retirees, institutionalized individuals, stay-at-home parents and discouraged workers, who have looked for a job in the past year but stopped as a result of actual or perceived poor prospects.

There are approximately 456,554 individuals in the labor force within the study area, and Exhibit 3-3 provides a view of the location(s) of the labor force within the study area with the darker the color representing a higher availability of labor.

Exhibit 3-3
Labor Force Availability Map



Source: EMSI

Labor Participation Rate

The labor force participation rate is the ratio of the labor force (both those employed and those unemployed) to the total working age population in a specified area.

Out of the total population within the study area, it is estimated that approximately 66% (587,951) is of working age and of that segment 77% (452,722) participate in the labor force. Compared to the national population, with an estimated labor participation rate of 62.8% (*St. Louis Federal Reserve, April 2019*), the study area has a high labor participation rate.

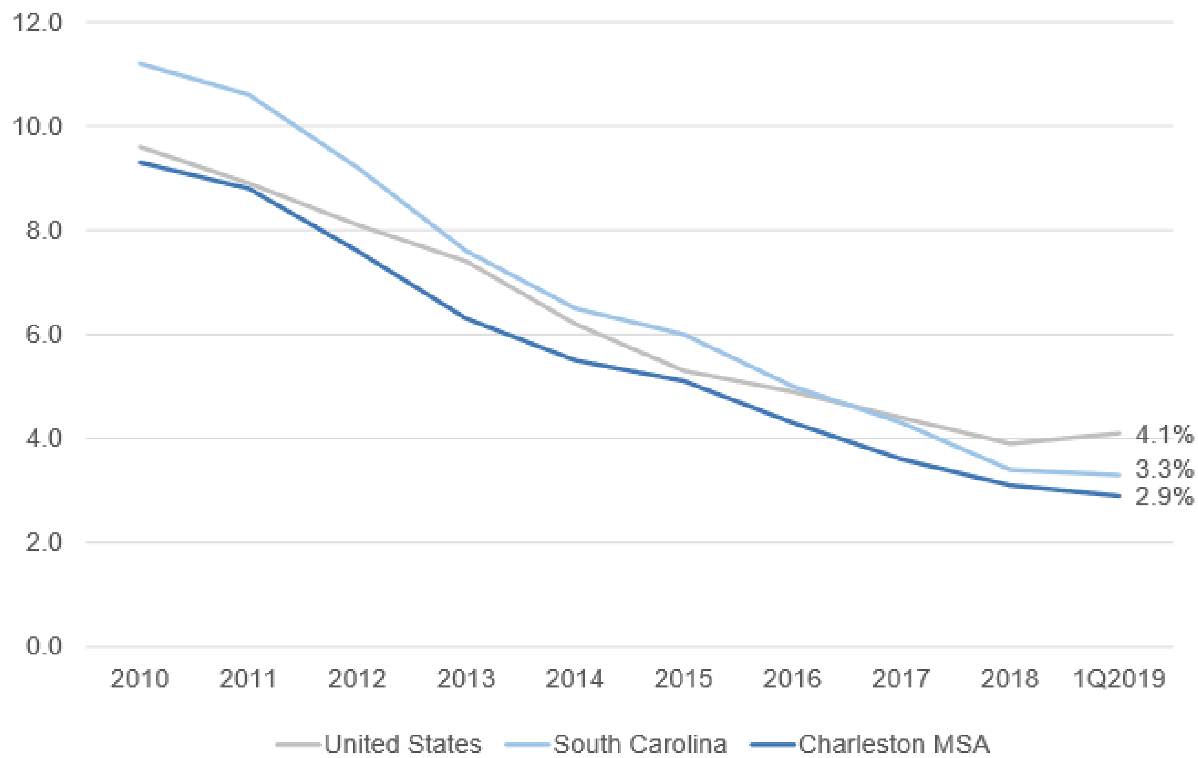
The labor force participation rate may, however, underestimate an area's unemployment situation due to the exclusion of discouraged workers. For example, when discouraged workers fall out of the labor force after long-term unemployment, the unemployment rate might fall even though the number of individuals without a job remains unchanged. As such, we can also look at the employment-to-population ratio of an area, sometimes called the employment rate of an area.

Participation rates are influenced by a number of factors, and differ by age, racial and ethnic composition and gender. For example, the participation rates of older workers (aged 55 and over), while lower than average, has been rising since 1980. The Bureau of Labor Statistics (BLS) mentions several factors behind this increase, but the most important one is the sheer number of baby-boomers reaching this age group. It is also worth noting that the participation rates of younger workers, especially men aged 16-19 years, have been declining since 1990 and should continue to decline as school enrollment rates improve.

Unemployment

The unemployment rate measures the number of individuals who are unemployed and actively seeking work as a share of the total labor force. Exhibit 3-4 provides an eight-year historical snapshot of the unemployment rate of the Charleston MSA, which represents the majority of the study area. As can be seen, the Charleston MSA has an unemployment rate of 2.9%, compared to a statewide rate of 3.3% and a nation-wide unemployment rate of 4.1%.

Exhibit 3-4
Charleston MSA Unemployment Rate History



Source: BLS; Hargett Consulting, LLC; May 2019.

Underemployment

Underemployment is a measure of employed individuals who are either working part-time but preferring a full-time position, working in a non-permanent position but preferring a permanent job, or "overqualified" for their current position due to factors like training, education, pay scale, and job satisfaction. Underemployment is a critical measure in quantifying the real, available workforce especially for new and expanding firms in a community as they ramp-up operations.

The South Carolina Power Team, with funding provided by Santee Cooper and through the analysis and work of the Site Selection Group, provides invaluable information related to the underemployment of South Carolina and the study area. Exhibit 3-5 shows that there are an estimated 64,997 underemployed workers in this region, of which 3,638 are working in manufacturing. These individuals are potentially available for work opportunities in new and expanded facilities. This higher underemployment rate compared to the state rate is a sign the labor market in this region may be slacker than the state's labor market overall, and thus, it may be relatively easier to staff a new operation.

Exhibit 3-5
Study Area Underemployment

	Total	%
Overall Underemployment	64,997	15.82
Overall Manufacturing Underemployment	3,638	14.14
Blue Collar Underemployment	16,917	14.89
Production and Distribution Underemployment	9,362	19.06
White Collar Underemployment	48,091	16.18
Engineering and Science Underemployment	2,091	10.59

Source: SC Power Team

3.A.3 Educational Attainment

Educational attainment is the highest level of education that an individual has achieved. Knowing the educational attainment of the population within a specific area can provide insight into a variety of factors about the area. Areas with high rates of low educational attainment usually face challenges such as higher rates of unemployment and poverty and will therefore use higher levels of public services and resources.

Additionally, areas with high levels of educational attainment may be sought out by businesses during their site selection process if they require highly educated and high skilled workers. Understanding the gap between workforce needs and resident capabilities can provide insight into the need for training programs and workforce development initiatives.

Exhibit 3-6 provides a snapshot of educational attainment within the study area compared to attainment rates within South Carolina as well as nationwide. As can be seen, the study area population has at least the same if not better educational attainment than both the state and nationwide comparisons related to attainment of a *Bachelor's Degree* or a *Graduate Degree and Higher*.

Exhibit 3-6
Educational Attainment

Education Level	2018 % of Population	2018 State % Population	2018 National % Population
Less Than 9th Grade	4%	6%	7%
9th Grade to 12th Grade	7%	9%	7%
High School Diploma	27%	30%	28%
Some College	21%	21%	21%
Associate's Degree	9%	9%	8%
Bachelor's Degree	21%	17%	19%
Graduate Degree and Higher	11%	9%	11%
	100%	100%	100%

Source: EMSI

Training Programs

From a company's initial start-up and early production goals to an organization's long-term growth strategy, South Carolina offers a comprehensive workforce solution custom-designed to meet the needs of each company. South Carolina's internationally renowned programs — readySC™ and Apprenticeship Carolina™ — along with its robust technical college system provide the training and education necessary to build a competitive workforce ready for today's demands and tomorrow's challenges.

readySC™

As an integral part of the SC Technical College System, readySC™ works together with the 16 technical colleges to prepare South Carolina's workforce to meet the needs of companies located in South Carolina. With a mission to promote economic development in South Carolina by providing customized recruiting and training solutions to companies bringing new jobs to the state through relocation or expansion, readySC™ was established in 1961 and is one of the oldest and most experienced workforce training programs in the United States.

readySC™ is not a grant program but instead is committed to providing a full range of services to qualifying companies with the end goal of supplying your initial workforce. Services provided include:

- Recruitment Solutions - Develop customized recruitment solutions such as microsites, advertising, social media campaigns, job fairs, among others.
- Training Solutions - Develop customized training solutions including curriculum development & design, employee orientations, transfer of knowledge strategies and continued workforce development.
- Training Location - Coordinate with local partners to find suitable training space then up-fit with state-of-the art equipment and labs to best reflect the ultimate workplace.
- Project Management - Use a project management approach by providing a full-time project manager, developing a comprehensive project scope and conducting periodic project reviews.

Apprenticeship Carolina™

Apprenticeship Carolina™, a division of the SC Technical College System, works to ensure all employers in South Carolina have access to the information and technical assistance they need to create demand-driven registered apprenticeship programs. At no cost to the employer, apprenticeship consultants are available to guide companies through the registered apprenticeship development process from initial information to full recognition in the national Registered Apprenticeship System.

3.A.4 Residential Land Use

Land is zoned for many uses reflecting the priorities of the municipal legislative body. A city which is focused on providing land primarily for industry and commercial uses may choose to limit the amount of land that is zoned for residential purposes. This will allow densification of industrial uses and provision of employment opportunities without hampering businesses with mitigation measures to prevent inconveniencing nearby residents.

On the other hand, a city which is focused on providing residential conveniences may choose to limit the amount of land that is zoned for industrial purposes so that its residents are fully able to enjoy a peaceful and tranquil quality of life without the inconveniences of traffic noise and congestion, potential industrial emissions and industrial activity.

Many communities though strive for a balanced approach which recognizes the value of commercial and industrial land in providing employment opportunities for its own residential population. At the same time, businesses located within a region need a ready supply of labor adequate to their needs. This labor can come from the community itself or it can commute from neighboring cities and regions. These sources represent the supply of labor.

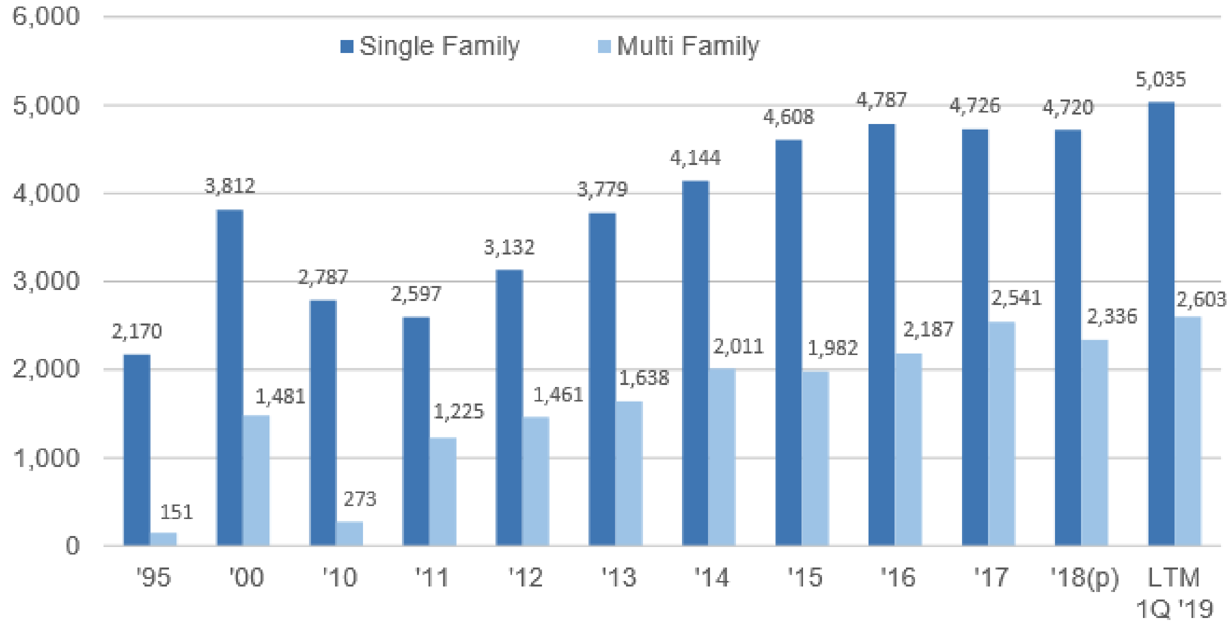
The most direct source of labor is that which lives within the immediate surroundings. Such labor must live in areas that are zoned for residential uses. Residential land can be zoned for single family residences or for higher-density multi-family uses. Other residential zoning includes mobile homes and trailer parks, mixed residential and rural residential.

Recreational and open space provides land for public use and enhances the quality of life of residents as they enjoy nature and natural beauty. Open spaces, whether parks for public use, protected areas or private facilities that allow leisure activities such as baseball fields, zoos, nature preserves, community gardens, and so on, all contribute to the quality of life for residents.

The land surrounding the study area, while divided amongst numerous jurisdictions (Berkeley County, Dorchester County, Charleston County, Orangeburg County, and various municipalities), has a very balanced allocation of residential, commercial, industrial, and conservation zoning. Exhibit 2-9 provides a very high-level view of current land uses in the Berkeley, Dorchester, and Charleston County region. Furthermore, each of the county's comprehensive plans (South Carolina-required land-use and strategic planning processes) and the Berkeley-Charleston-Dorchester Council of Governments' *OurRegion OurPlan* include various, interrelated visions and strategies to maintain this balance of residential, commercial, industrial, and conservation/public space to maintain the desired quality of life for current and future residents.

Exhibit 3-7 provides a historical view of the number of single and multi-family residential permits approved in the Charleston MSA. The number of new single and multi-family residential building permits has increased dramatically since 1995 and has stayed relatively consistent over the past four years.

Exhibit 3-7
Residential Building Permits in Charelston MSA



Source: US Census Bureau, Building Permits Survey; Hargett Consulting, LLC; May 2019.

In addition to new residential permits, a consistent, large number of single-family closings in the study area provides further evidence of a fast-growing area. While there are numerous communities within the Charleston MSA, single-family closings in the Goose Creek/Hanahan and Summerville submarkets represent approximately of all single-family residential closings in the Charleston MSA. These two sub-markets are also some of the closest submarkets to Camp Hall.

Exhibit 3-8 shows the location in proximity to Camp Hall for eight (8) of the top ten top-selling residential subdivisions in the Charleston MSA. Exhibit 3-9 provides data on the top ten selling communities within the Charleston MSA with the corresponding number of closings in each community and the average sales price.

These data points provide further proof that the Charleston MSA is growing rapidly, with a large portion of that residential growth occurring in close proximity to Camp Hall.

Exhibit 3-8
Location of Major Residential Subdivision

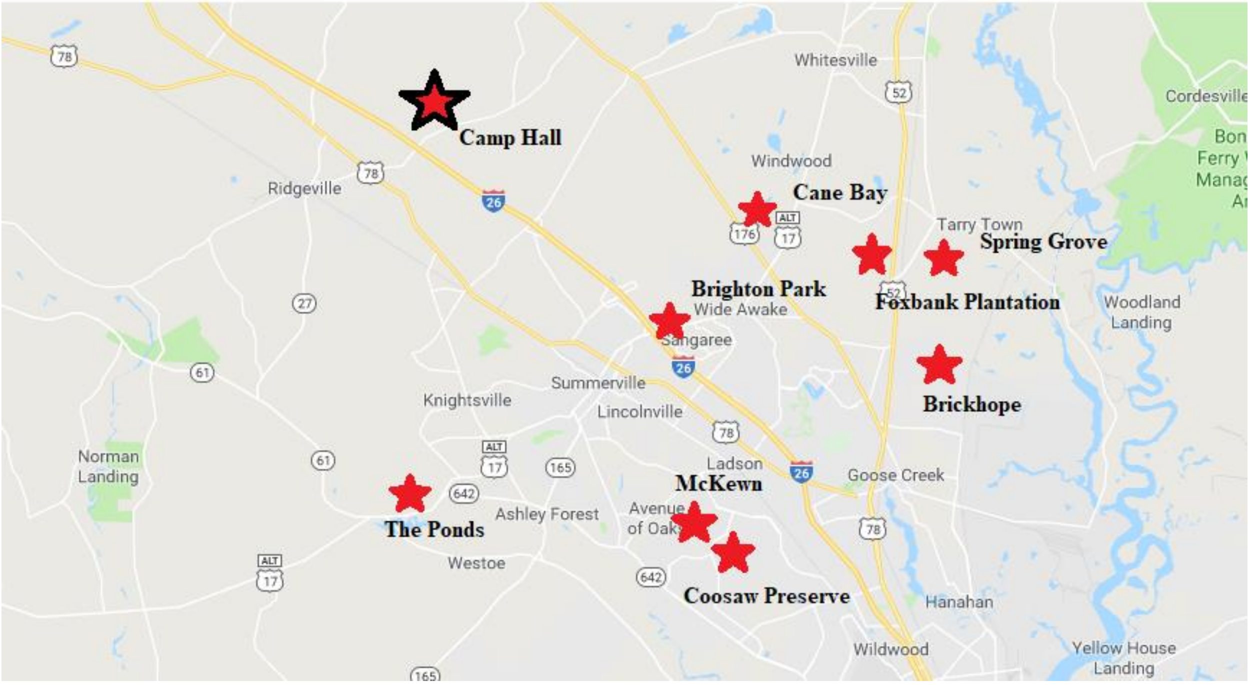


Exhibit 3-9
Top 10 Selling Subdivisions in Charleston MSA

Rank LTM Q1 2019	Community	Location	# of Closings	Average $
1	Cane Bay	Summerville	539	$313,360
2	Brighton Park	Summerville	187	$401,303
3	Coosaw Preserve	Ladson	157	$304,440
4	Spring Grove	Goose Creek	144	$267,830
5	Foxbank Plantation	Moncks Corner	137	$276,930
6	The Ponds	Summerville	135	$366,300
7	Oyster Point	Mount Pleasant	118	$590,100
8	Oakfield	Johns Island	104	$366,520
9	Brickhope	Goose Creek	101	$264,240
10	McKewn	Summerville	96	$265,500

Source: Market Opportunity Research Enterprises; Hargett Consulting, LLC; May 2019.

3.B Demand for Labor

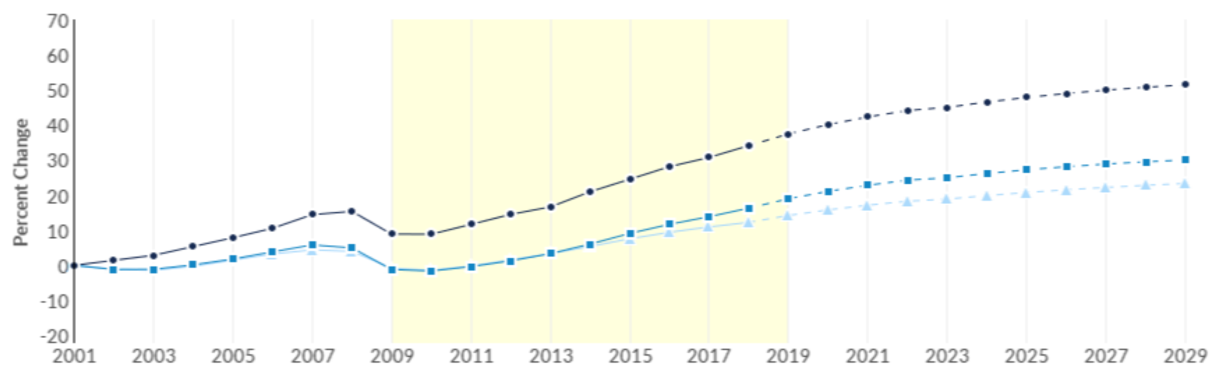
Demand for labor is generated by local and regional businesses. This is a function of the economic health of the local and regional economy and its expected growth, and of locational decisions made by growing businesses. These factors are examined in this section.

3.B.1 Current Employment

While population growth can indicate the future availability of workers, and educational attainment can provide insight into the capability of residents, an examination of the actual employment status of current residents reveals what the working residents are performing in terms of occupations and in which industries. It is possible that working residents are underemployed, particularly in the wake of the "Great Recession," but current employment will provide a baseline indicator of residents' capabilities.

Exhibit 3-10 provides a historical analysis of the job growth of the study area compared to job growth in South Carolina and nationwide. As the graph denotes, the study area saw a 26.3% increase in jobs between 2009 to 2019, adding 78,548 jobs. Additionally, the region is estimated to add an additional 10-15% in new jobs in the coming ten years, which is projected to outpace the job growth throughout South Carolina and the nation during the same period.

Exhibit 3-10
Regional Employment Trends



	Region	2009 Jobs	2019 Jobs	Change	% Change
●	Region	299,074	377,622	78,548	26.3%
■	State	1,765,750	2,126,735	360,985	20.4%
▲	Nation	128,608,186	148,103,252	19,495,066	15.2%

Source: EMSI

Exhibit 3-11 provides a current snapshot of the largest employment by sector within the study area. Also shown in this exhibit, a national average is provided – shown by the gray line. As one can see, the largest employment sectors include:

- Government;
- Accommodations & Food Services; and
- Retail Trade

These three represent the largest employment sectors and are all above the national average in terms of employment based on a similar size study area.

Furthermore, Exhibit 3-12 shows the average annual earnings per employee for major industry sectors within the study area. The highest earning sectors for the study area include:

- Utilities;
- Management of Companies and Enterprises;
- Manufacturing;
- Professional, Scientific, and Technical Services; and
- Finance and Insurance

It should be noted that within each industry, there are a variety of occupations that are employed. For example, workers employed by health care industries can include physicians, nurses, medical technicians, accountants, data processors, food preparers, orderlies, janitors, lawyers, and many more.

Similarly, workers trained for one particular occupation can be employed by many other different industries. For example, sales representatives are employed in retail industries, manufacturing firms, health care services, and across a number of other sectors. Nurses may be employed in hospitals, schools, or by insurance carriers.

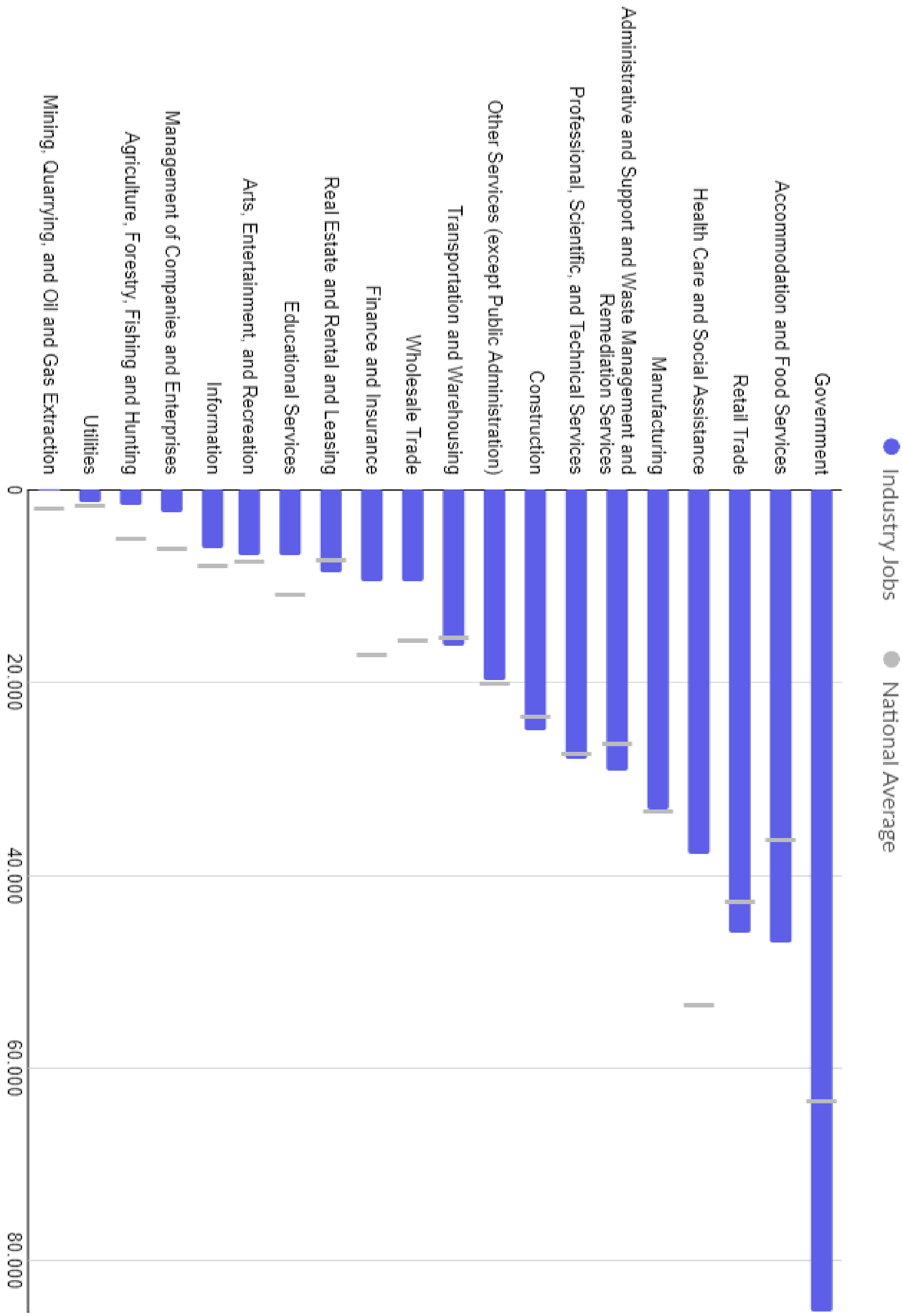
Individuals trained in an occupation may therefore find employment in a variety of industries and will be especially interested in industries that are growing no matter what their individual skill levels may be since growing industries will hire a panoply of workers at many skills and education levels.

Occupation Information

With continued analysis of the labor force within the study area, occupational data must be analyzed. Exhibit 3-13 provides a snapshot of the percentage of jobs within the study area by occupation. The largest occupation within the study area is within the Office & Administrative Support occupation (14.07%) followed closely by Food Preparation & Serving-Related (10.76%) and Sales & Related (10.45%) occupations. Production-related occupations account for 9.63% of the total jobs within the study area, which includes occupations within the manufacturing sectors.

Exhibit 3-14 provides an overview of the median earnings by occupation within the study area. Management occupations have the highest median earnings ($88,551.98) while Food Preparation & Serving-Related occupations have the lowest median earnings ($19,724.96). Production-related occupations have the 4th highest median earning within the study area with a total of $64,804.25 annual earnings.

Exhibit 3-11
Largest Industries by Employment



Source: EMSI

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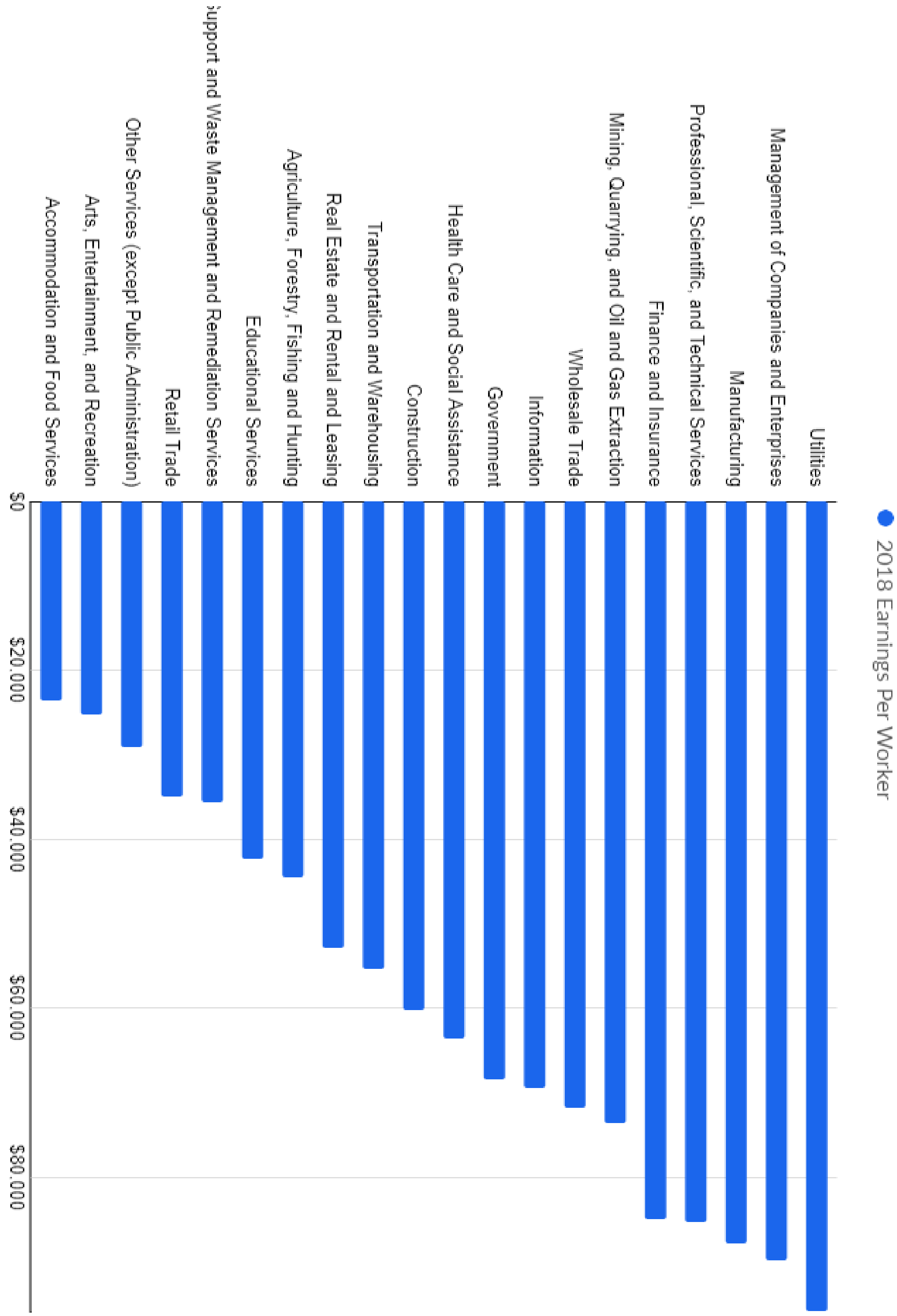
Exhibit 3-12
Highest Annual Earnings Per Worker



Source: EMSI

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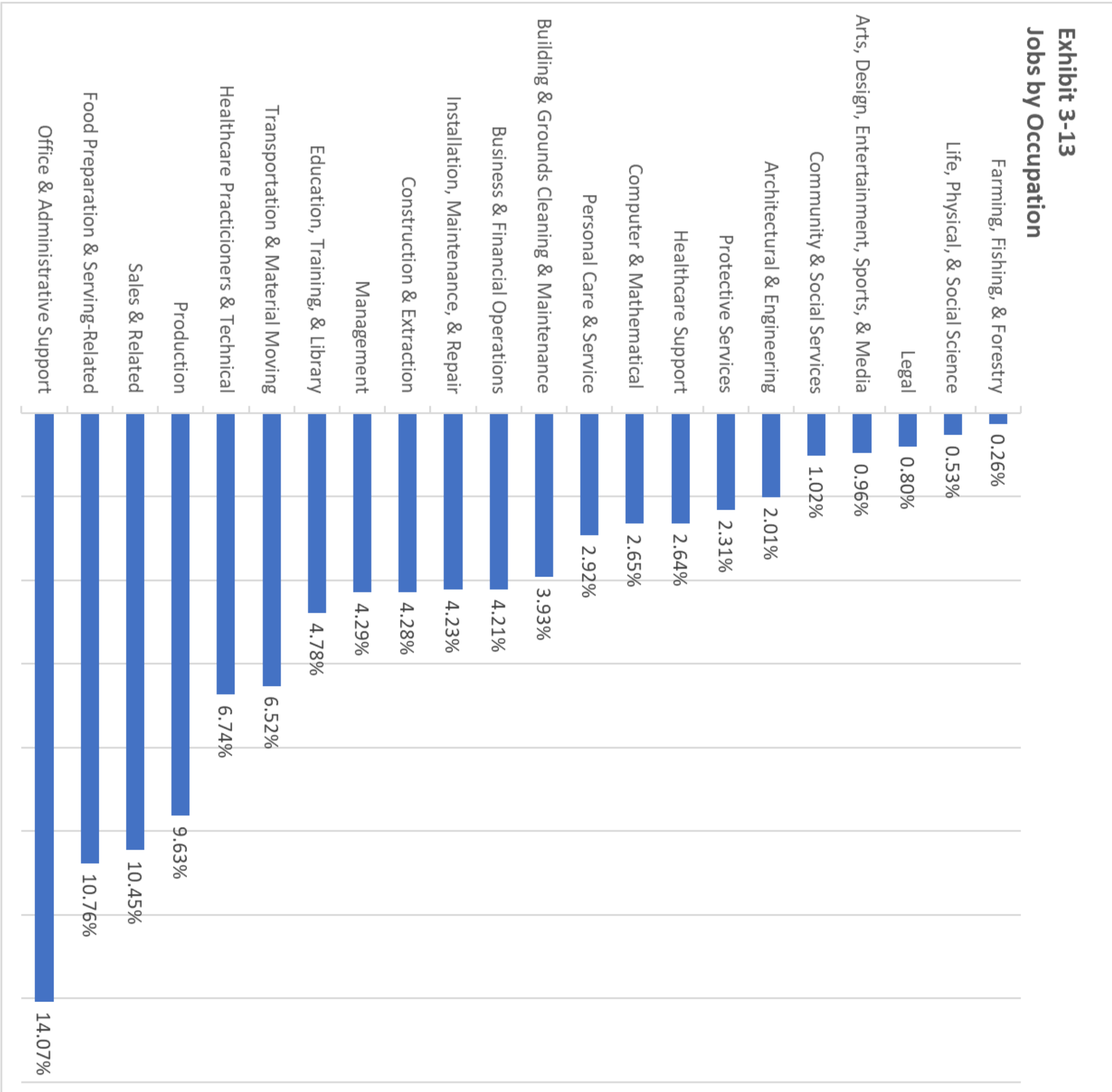


Exhibit 3-13
Jobs by Occupation
Farming, Fishing, & Forestry
0.26%
Life, Physical, & Social Science
0.53%
Legal
0.80%
Arts, Design, Entertainment, Sports, & Media
0.96%
Community & Social Services
1.02%
Architectural & Engineering
2.01%
Protective Services
2.31%
Healthcare Support
2.64%
Computer & Mathematical
2.65%
Personal Care & Service
2.92%
Building & Grounds Cleaning & Maintenance
3.93%
Business & Financial Operations
4.21%
Installation, Maintenance, & Repair
4.23%
Construction & Extraction
4.28%
Management
4.29%
Education, Training, & Library
4.78%
Transportation & Material Moving
6.52%
Healthcare Practicioners & Technical
6.74%
Production
9.63%
Sales & Related
10.45%
Food Preparation & Serving-Related
10.76%
Office & Administrative Support
14.07%

Source: EMSI

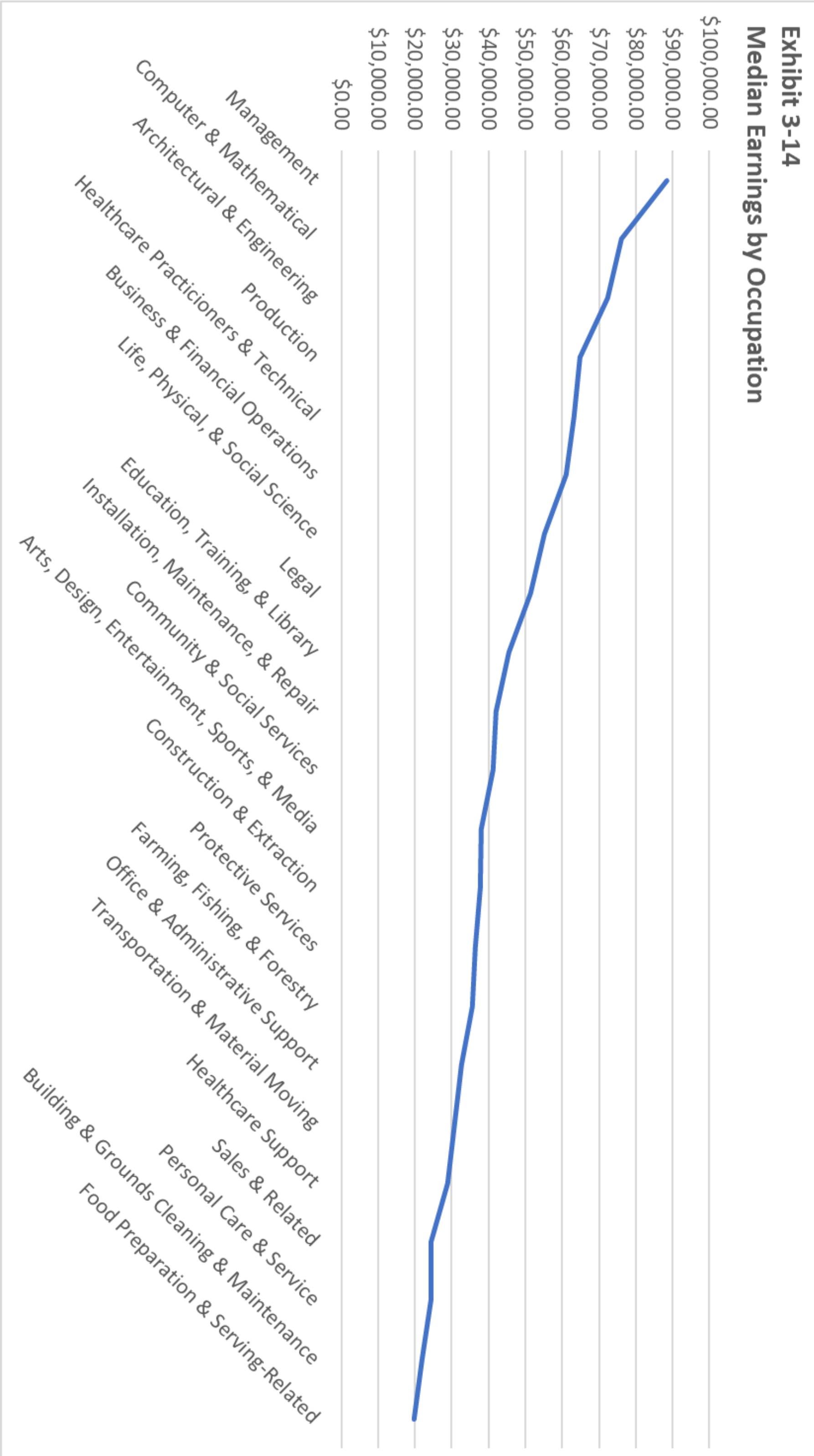


Exhibit 3-14
Median Earnings by Occupation
$100,000.00
$90,000.00
$80,000.00
$70,000.00
$60,000.00
$50,000.00
$40,000.00
$30,000.00
$20,000.00
$10,000.00
$0.00
Management
Computer & Mathematical
Architectural & Engineering
Production
Healthcare Practicioners & Technical
Business & Financial Operations
Life, Physical, & Social Science
Legal
Education, Training, & Library
Installation, Maintenance, & Repair
Community & Social Services
Arts, Design, Entertainment, Sports, & Media
Construction & Extraction
Protective Services
Farming, Fishing, & Forestry
Office & Administrative Support
Transportation & Material Moving
Healthcare Support
Sales & Related
Personal Care & Service
Building & Grounds Cleaning & Maintenance
Food Preparation & Serving-Related

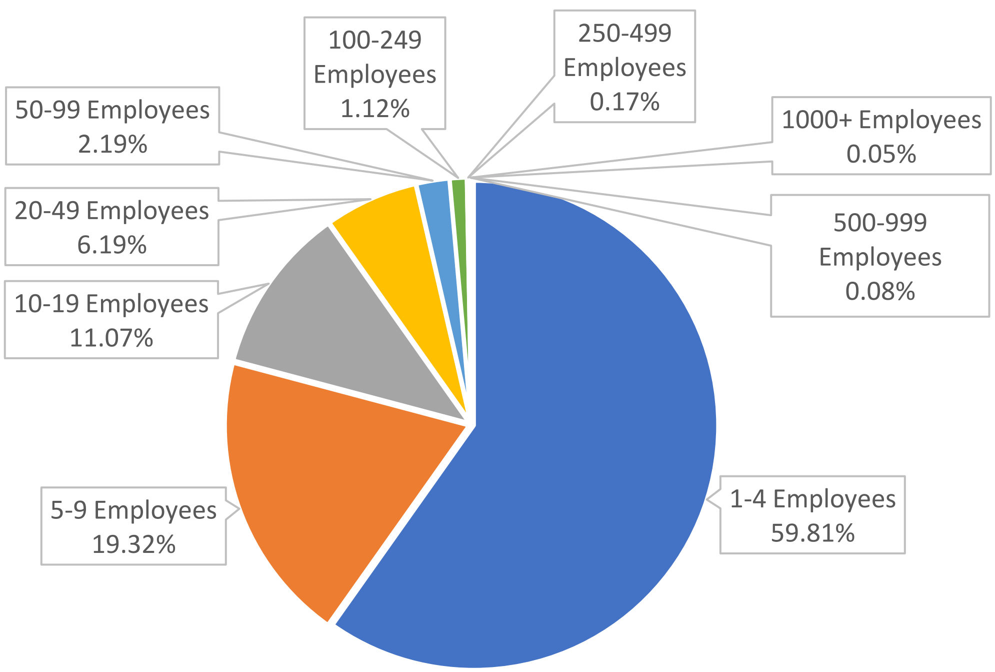
Source: EMSI

3.B.2 Current Businesses & Industries

To investigate the potential for employment opportunities within the region, an understanding of the existing employment is needed. This section identifies the current businesses and industries that are located within the study area and estimates the current employment of those industry sectors.

There are approximately 32,648 establishments (businesses or industries that employ one or more people) within the study area. Exhibit 3-15 provides a graphical breakdown of how those establishments breakdown by employee size. As one can see, the majority of the establishments within the study area (59.81%) employ four or fewer employees. Whereas larger employment establishments, employing 100 or more employees, only account for 1.42% of the total establishments within the study area.

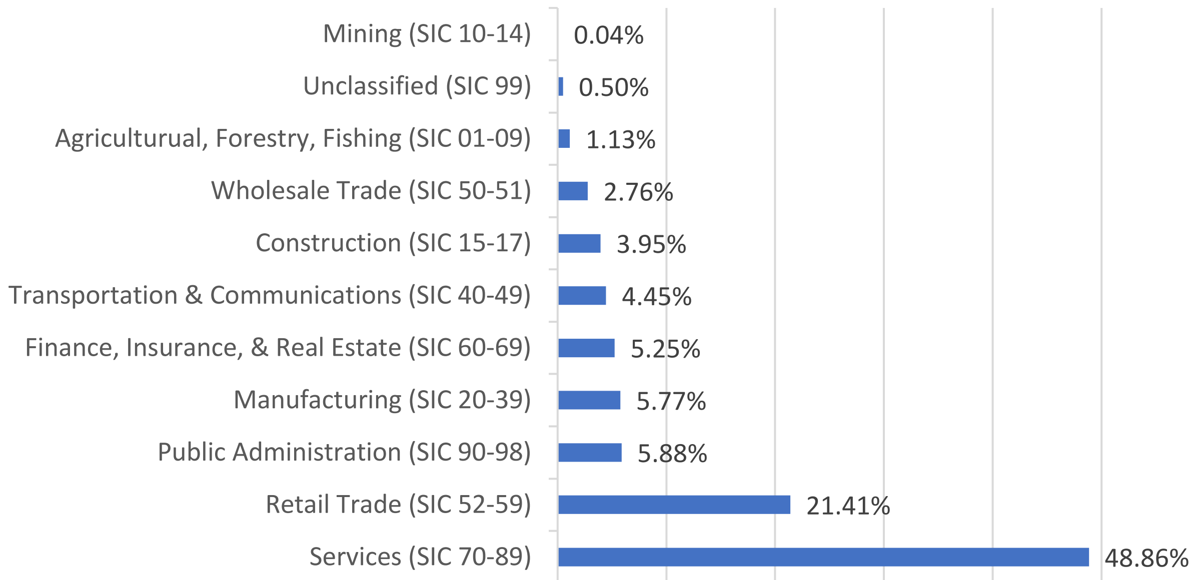
Exhibit 3-15
Establishments by Size



Source: EMSI

Exhibit 3-16 provides information on the percentage of total employment with the major SIC (Standard Industrial Classification) within the study area. Of all employment within the study area, 45.86% of the labor force is employed within the *Services* industry, with an additional 21.41% being employed within the *Retail Trade* industry.

Exhibit 3-16
Total Employees by Major SIC



Source: EMSI

Some of the largest employers within the study area are shown in Exhibit 3-17 with the estimated employment size and type of industry. This information shows there are several large employers, with the majority of those being in various public sector, industries, including healthcare, military, education, higher education, and government. Of the largest employers, six (6) are manufacturing-related companies that account for 13,900 employees (or 14.33%) of the largest employers. Technology-related employers account for 3,315 employees (or 3.42%) of the total largest employers in the study area.

Exhibit 3-17
Largest Employers

Business Name	Industry Type	Number of Employees*
Joint Base Charleston	Military	22,000
Medical University of South Carolina	Hospital	13,000
The Boeing Company	Manufacturing	7,300
Berkeley County School District	Education	6,600
Charleston County School District	Education	6,500
Roper St. Francis Healthcare	Hospital	5,700
Dorchester County School District	Education	3,900
Trident Health System	Hospital	2,600
Charleston County	Government	2,600
Walmart, Inc	Retail	2,300
Robert Bosch LLC	Manufacturing	2,000
College of Charleston	Higher Education	2,000
US Postal Service	Government	2,000
City of Charleston	Government	1,700
Volvo Car USA LLC	Manufacturing	1,500
Blackbaud, Inc.	Technology	1,400
Publix Supermarkets	Retail	1,200
iQor	Call Center	1,200
Berkeley County	Government	1,200
City of North Charleston	Government	1,200
Trident Technical College	Higher Education	1,200
Mercedes-Benz Vans	Manufacturing	1,100
BenefitFocus	Technology	1,000
Nucor Steel	Manufacturing	1,000
Harris Teeter Supermarkets	Retail	1,000
KapStone Charleston Kraft, LLC	Manufacturing	1,000
Kiawah Island Golf Resort	Hospitality	1,000
SAIC	Technology	915
T-Mobile	Call Center	900

*Employment figures are estimates

Source: Charleston Regional Development Alliance

3.B.3 Commercial and Industrial Land Use

The character of a region is defined by its land use. A bedroom community is zoned almost entirely for residential purposes, with commercial land available only to allow the provision of goods and services to local residents, such as retail stores, gas stations, restaurants, schools, personal care services, medical services, and so on. Residents of bedroom communities who work typically commute to jobs in other cities, sometimes at significant distances from home.

An industrial city chooses to allocate its land for businesses engaged in manufacturing, assembling goods, wholesale activities, transportation, warehousing, and so on. The nature of such businesses may not be amenable to residents, and zoning is used to protect the peace and tranquility of residents by providing a buffer zone.

Some cities may restrict residential land uses to capitalize on the synergies and cluster effects developed through concentration of industry within their geographic borders. Such concentrations of industry can be significant sources of employment opportunities. An examination of the potential for a region to provide such employment opportunities must therefore focus on available land and buildings for such development.

There is a large amount of land within the study area and an overview of all current land uses can be seen in Exhibit 2-9. In addition to observing the land uses, a good understanding of the commercial and industrial opportunities can be undertaken through analysis of the inventory, absorption rate, average asking rent, and vacancy within the industrial, office, and retail real estate market.

Industrial Real Estate

Exhibit 3-18 provides information on the industrial real estate market indicators within the Charleston MSA and Exhibit 3-19 provides information on the industrial real estate market within sub-markets of the Charleston MSA. There is approximately 67.2M square feet of industrial real estate within the market, with a 7.2% vacancy rate. Within the past twelve months, the region has added almost 6.5M SF of industrial space with a steady absorption. The average asking rent for the 1st Quarter of 2019 is approximately $5.52 per square-foot, a 2% increase from Q1 2018.

Exhibit 3-18
Industrial Real Estate Market Indicators - Charleston MSA

Charleston MSA	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
Inventory (SF)	60,886,991	64,163,938	65,631,588	66,396,956	67,222,536
Vacancy	8.6%	8.0%	7.6%	7.2%	7.2%
Avg. Asking Rent	$5.41	$5.35	$5.38	$5.42	$5.52
Quarterly Absorption (SF)	1,051,750	3,386,655	1,610,268	968,726	767,122

Source: Avison Young; Hargett Consulting, LLC; May 2019.

Exhibit 3-19
Industrial Real Estate Sub-Market Data

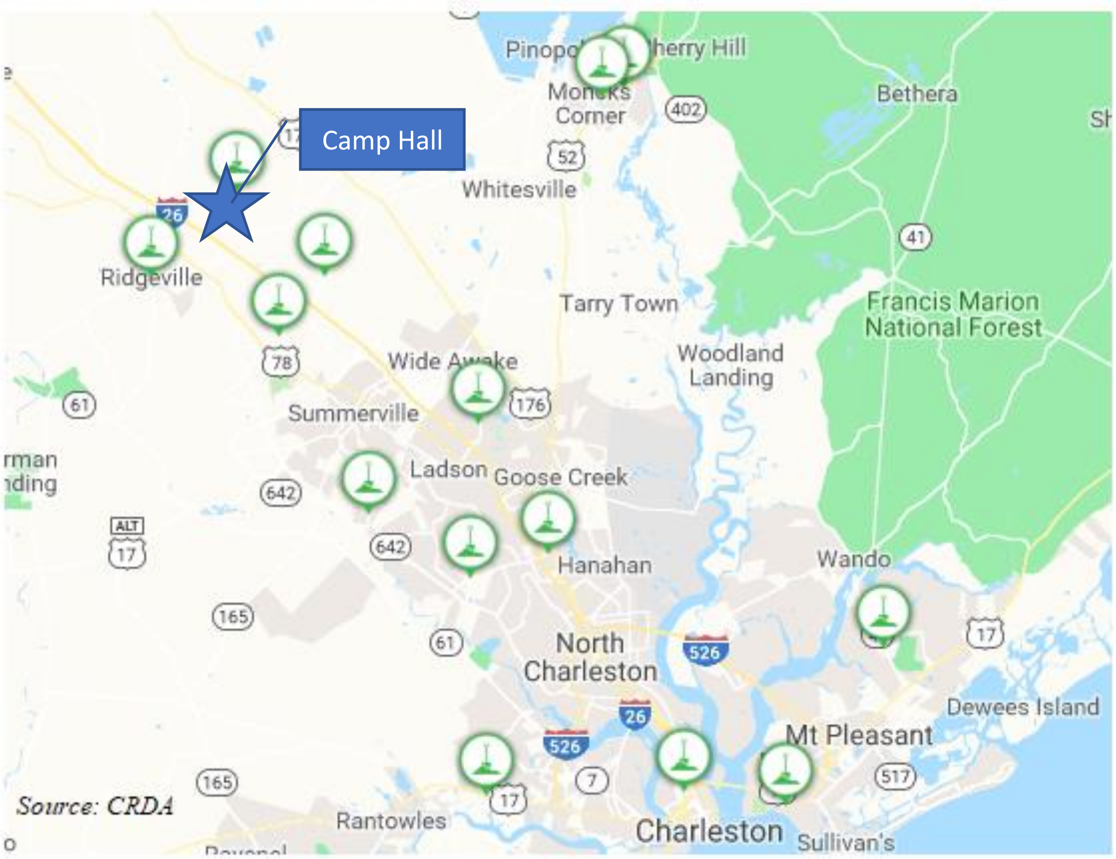
	Q 1 2019			
Submarket	Inventory	Market %	Vacant %	Average Asking Rent
Dorchester County	7,859,222	11.7%	1.6%	$5.52
Downtown Charleston	744,240	1.1%	0.0%	$10.00
East Cooper/Clements Ferry	5,027,964	7.5%	2.5%	$7.12
East Islands/Mount Pleasant	1,036,041	1.5%	1.4%	$12.14
Greater Charleston	1,819,996	2.7%	3.5%	$13.63
North Charleston	28,065,050	41.7%	7.2%	$6.31
Outlying Berkeley County	21,419,221	31.9%	11.3%	$4.73
West Charleston County	1,179,134	1.8%	4.3%	$7.64
Regional Total	67,222,536	-	7.2%	$5.52

Source: Avison Young; Hargett Consulting, LLC; May 2019.

While the Outlying Berkeley County area, which includes Camp Hall, has the second highest inventory of industrial real estate, the average asking rent is by far the cheapest. This is primarily due to lower land costs, the majority of the industrial product being offered is warehouse and distribution-related facilities, and the average size of the industrial buildings being larger than other submarkets.

Exhibit 3-20 shows a map of all industrial parks/sites, greater than 100 acres within the study area. These parks/sites are a mix of public and privately-owned industrial sites that are listed on the Charleston Regional Development Alliance website. Additionally, there are other numerous industrial buildings within the study area that range from 1,000 SF to 1.4M SF for lease and/or sale.

Exhibit 3-20:
Surrounding Industrial/Commerce Parks



Office Real Estate

Exhibit 3-21 provides information on the office real estate market indicators within the Charleston MSA and Exhibit 3-20 provides information on the office real estate market within sub-markets of the Charleston MSA. Office real estate information is a good indicator of white-collar business growth opportunities, which generally pays higher than average wages for the study area. There is approximately 20M square feet of office real estate within the market, with a 5.8% vacancy rate. Within the past twelve months, the region has added almost 500,000 SF of office space with a steady absorption rate. The average asking rent for the 1st Quarter of 2019 is $33.89 per SF, which has relatively flat over the previous twelve months.

Exhibit 3-21:
Office Real Estate Market Indicators - Charleston MSA

Charleston MSA	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
Inventory (SF)	19,639,806	19,835,107	19,835,107	20,034,897	20,052,981
Vacancy	6.4%	5.7%	6.1%	6.6%	5.8%
Avg. Asking Rent	$33.80	$34.04	$34.07	$34.00	$33.84
Quarterly Absorption (SF)	142,104	316,756	(80,979)	95,363	176,949

Source: Avison Young; Hargett Consulting; May 2019.

The office sub-market information, as presented in Exhibit 3-22, shows that the North Charleston sub-market claims the largest share of the office real estate market with 7.5M SF of office space; the highest vacancy rate is within the North Suburbs sub-market; and highest average asking rent is located in Downtown Charleston while the lowest average asking rent is in the North Suburbs.

Exhibit 3-22
Office Real Estate Sub-Market Data

	Q 1 2019				
Submarket	Inventory	Market %	Vacant %	Average Asking Rent	Quarter Absorption
Downtown Charleston	4,781,235	23.8%	3.4%	$42.47	(2,087)
East Suburbs	4,329,736	21.6%	6.3%	$36.98	128,330
North Charleston	7,582,882	37.8%	6.5%	$30.76	89,960
North Suburbs	1,797,151	9.0%	9.1%	$27.92	(63,178)
West Suburbs	1,561,977	7.8%	4.3%	$33.42	23,924
Regional Total	20,052,981	-	5.8%	$33.84	176,949

Source: Avison Young; Hargett Consulting, LLC; May 2019.

Retail Real Estate

Exhibit 3-23 provides information on the retail real estate market indicators within the Charleston MSA and Exhibit 3-24 provides information on the retail real estate market within sub-markets of the Charleston MSA. Retail real estate information is a good indicator of population growth in an area and retail growth is usually a predictor of increased incomes and higher satisfaction in quality of life surveys. There is approximately 21.7M square feet of retail real estate within the market, with a 4.4% vacancy rate. Within the past twelve months, the region has added over 500,000 SF of retail space. The average asking rent for the 1st Quarter of 2019 is $23.38 per SF, which has relatively flat over the previous twelve months.

Exhibit 3-23
Retail Real Estate Market Indicators – Charleston MSA

Charleston MSA	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019
Inventory (SF)	21,160,989	21,231,330	21,531,683	21,540,813	21,700,020
Vacancy	3.5%	3.8%	3.2%	3.2%	4.4%
Avg. Asking Rent (NNN)	$24.49	$23.73	$23.22	$22.63	$23.38
Quarterly Absorption (SF)	281,016	2,329	420,546	3,843	(93,969)

Source: Avison Young; Hargett Consulting, LLC; May 2019.

Exhibit 3-24
Retail Real Estate Sub-Market Data

	Q 1 2019			
Submarket	Inventory	Market %	Vacant %	Average Asking Rent
Daniel Island/Clements Ferry	99,989	0.5%	6.5%	$23.00
Downtown Charleston	744,240	3.4%	0.0%	$46.24
East Islands/Mount Pleasant	4,069,259	18.8%	2.3%	$26.84
Goose Creek	1,028,214	4.7%	3.1%	$15.01
North Charleston/Hanahan	5,748,369	26.5%	6.9%	$12.99
Summerville/Ladson	3,776,616	17.4%	2.9%	$15.71
West Ashley	3,640,561	16.8%	4.3%	$18.94
West Islands	1,432,206	6.6%	3.7%	$20.05
Regional Total	21,700,000	-	4.4%	$23.38

Source: Avison Young; Hargett Consulting, LLC; May 2019.

Retail sub-market information shows that over 25% of the market space is located in North Charleston/Hanahan which also has the highest vacancy rate of all reported sub-markets (6.9%) and the lowest average asking rent ($12.99 per SF). The highest average asking rent is Downtown Charleston, which also reports no vacancy within its retail real estate.

Camp Hall is included in the Summerville/Ladson submarket, highlighted in exhibit 3-24 representing 17.4% of the total retail market inventory and only a 2.9% vacancy rate. With the stated goal of adding more manufacturing-related firms at Camp Hall and the subsequent increase in employees commuting into and out of the Camp Hall area, retail services, particularly related to employee-focused retail and service businesses, will accordingly increase. Due to the distance from the center of Camp Hall from the Summerville/Ladson submarket, it is anticipated that the commercial center within Camp Hall, known as Village Center, should be a primary location for these types of employee-centric retail and service-related businesses.

Labor Projections

4.A Workforce Projections

Utilizing the data and information in sections 1-3 of this report – Current Demographics, Labor Supply, and Labor Demand – an understanding of the labor market within the study area can be made. The following sections draw upon that data and with additional qualitative and quantitative data provide projections for the future workforce. Specifically, this section will dive into:

- Educational Institutions' Output;
- Existing Industry Growth;
- Recent Economic Development Projects; and
- Potential Residential Growth

4.A.1 Educational Institutions' Output

Understanding the output, meaning the quantity and quality of students, graduates, and matriculants, from the educational institutions within the labor shed is vitally important. This information, coupled with various other factors and variables, empowers decision-makers to decide the location and/or expansion capabilities of their business. Furthermore, this information provides a "measuring stick" for the efficacy of private and public educational institutions and ensures that their programs and offerings are relevant to the market and subsequently prepare their students for gainful employment within the region.

Exhibit 4-1 provides a snapshot of all post-secondary educational institutions in the study area. There are 19 institutions within the area that had 10,896 completions or graduates in 2017 compared to 8,522 graduates in 2003.

The year-over-year (YOY) growth for most all educational institutions was either negative or relatively flat, with the exception of Miller-Motte Technical College Charleston (20.5% YOY) and International Driving Institute (41.7% YOY). Exhibit 4-2 provides a more long-term view of all educational institutions' graduations from 2003 to 2017, which represents a 28% increase in graduates in the fourteen-year span.

While there has been a slight drop in the number of graduates (5% over the previous five-years), all educational institutions have seen steady graduate numbers throughout the fourteen-year period; therefore, the projections for graduates from all educational institutions is expected to at least maintain at their respective 2017 graduate levels.

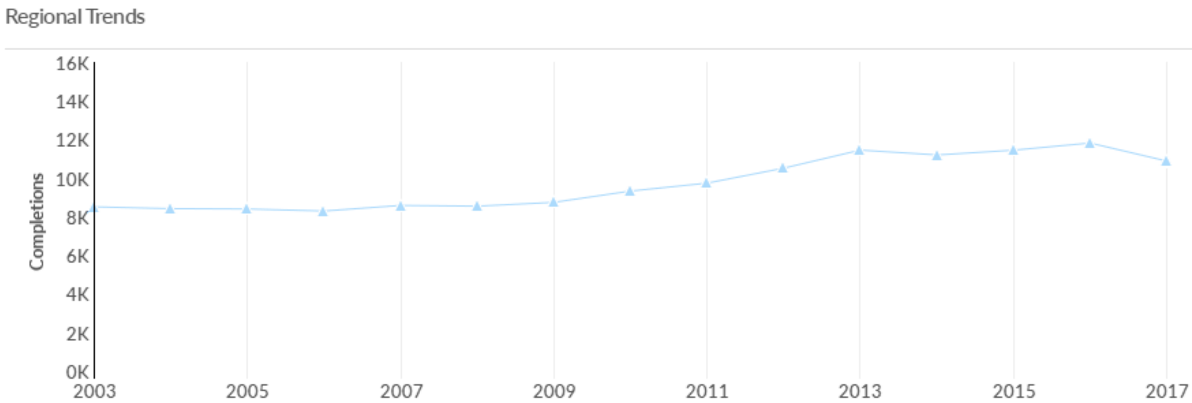
There are other large public educational institutions located within 2-3 hours of Camp Hall, most notably the University of South Carolina, which is less than 90 minutes from Camp Hall, houses numerous engineering programs, including, but not limited to, aerospace engineering, electrical engineering, mechanical engineering, biomedical engineering, chemical engineering, and nuclear engineering.

Exhibit 4-1
All Post-Secondary Educational Institutions

Institution	Completions (2017)	Growth % YOY (2017)	Market Share (2017)
⊞ Trident Technical College	2,892	-5.3%	26.5%
⊞ College of Charleston	2,574	-9.9%	23.6%
⊞ Medical University of South Carolina	1,051	2.8%	9.6%
⊞ Citadel Military College of South Carolina	1,033	-2.9%	9.5%
⊞ Orangeburg Calhoun Technical College	711	-29.4%	6.5%
⊞ Charleston Southern University	653	-3.1%	6.0%
⊞ South Carolina State University	473	-18.3%	4.3%
⊞ Claflin University	371	-2.6%	3.4%
⊞ Miller-Motte Technical College-Charleston	370	20.5%	3.4%
⊞ International Diving Institute	146	41.7%	1.3%
⊞ Virginia College-Charleston	124	-26.2%	1.1%
⊞ Charleston School of Law	112	-20.6%	1.0%
⊞ The Art Institute of Charleston	99	-10.0%	0.9%
⊞ Paul Mitchell the School-Charleston	93	-18.4%	0.9%
⊞ Southeastern Institute-Charleston	82	-18.8%	0.8%
⊞ Charleston Cosmetology Institute	58	-3.3%	0.5%
⊞ Kenneth Shuler School of Cosmetology-Goose Creek	44	528.6%	0.4%
⊞ Barber Tech Academy	7	250.0%	0.1%
⊞ Top of the Line Barber College	3	Insf. Data	0.0%

Source: EMSI

Exhibit 4-2
Historical Graduation Numbers for all Institutions



Source: EMSI

Educational Programs

More important than understanding the sheer number of graduates from regional educational institutions is to understand the types of programs offered by the institutions and the number of graduates from within those programs.

As referenced Exhibit 4-1, there were a total of 10,896 graduates out of all the educational institutions within the study area. Within those institutions, the top five programs by number of graduates are:

- Health Professions and Related Programs: 1,847 graduates
- Business, Management, Marketing, and Related Support Services: 1,524 graduates
- Liberal Arts and Sciences, General Studies, and Humanities: 628 graduates
- Biological and Biomedical Sciences: 528 graduates
- Education: 446 graduates

Additionally, Exhibit 4-3 provides an overview of the type of degrees conferred by those institutions, and shows that 41.2% of all graduates received a Bachelor's degree and an additional 20.7% received an Associate's degree.

Exhibit 4-3
Education Completions by Award Level

Award Level	Completions (2017)	Percent
Award of less than 1 academic year	1,816	16.7%
Award of at least 1 but less than 2 academic years	486	4.5%
Associate's Degree	2,253	20.7%
Bachelor's Degree	4,485	41.2%
Postbaccalaureate certificate	115	1.1%
Master's Degree	1,103	10.1%
Post-masters certificate	27	0.2%
Doctor's Degree	611	5.6%
Award of at least 2 but less than 4 academic years	0	0.0%

Source: EMSI

Industry Training

As referenced in *Section 3.A.3: Educational Attainment*, the State of South Carolina provides various training and apprenticeship programs for qualifying businesses in order to recruit and train employees for a business to be successful. Through both of the major programs, readySC™ and Apprenticeship Carolina™, thousands of South Carolinians have been trained and are now employed within industries across South Carolina. These companies are in various industries, including, but not limited to, aerospace, automotive, biotech, call centers, chemical, distributions, food and food processing, metal, plastics, textiles, tire, and more.

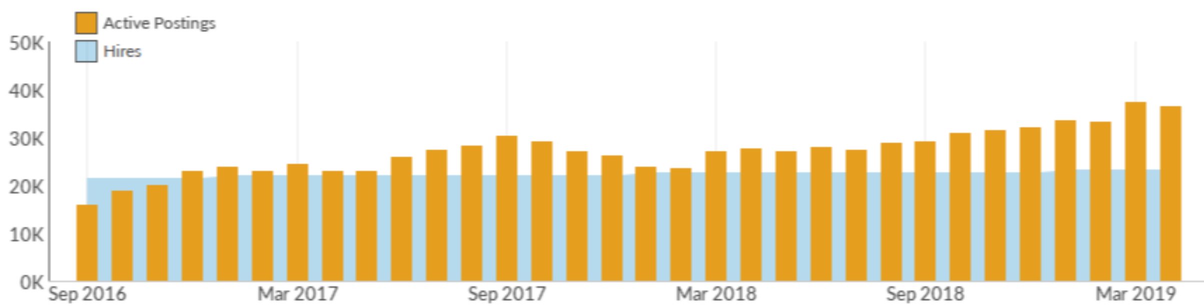
Additionally, several Berkeley County high schools have partnered with Volvo to create a training program for high school students. This 62-hour program, called ManuFirst SC, introduces students to lean manufacturing and provides safety training. Graduates of the program earn a certificate, which Volvo counts as equivalent to one year of manufacturing experience. Thirty-three (33) high school seniors graduated with this certificate in 2018 and the program has expanded across the state of South Carolina.

4.A.2 Existing Business and Industry Jobs

By analyzing the current job market, one can get a sense of the availability of jobs within the region as well as the actual response by the labor force within study region. This analysis can be performed by evaluating the current job postings compared to relevant hiring data and the target occupations most frequently found in job postings. Finally, by analyzing the job postings, specific skills and qualifications that are mentioned frequently can be evaluated to determine the level of availability within that job market for similar occupations.

Exhibit 4-4 provides a snapshot of the average monthly job postings comparative to the average monthly hires from September 2016 to March 2019. There was an average of 27,039 job postings per month during the thirty-month period compared to an average of 22,409 hires during that same period.

Exhibit 4-4:
Active Job Postings and Average Monthly Hires



Source: EMSI

Of job postings, the most common occupations include:

- Heavy and Tractor-Trailer Truck Drivers: 3,333 average monthly postings
- Registered Nurses: 1,529 average monthly postings
- First-Line Supervisors of Retail Sales Workers: 1,013 average monthly postings
- Retail Salespersons: 918 average monthly postings
- Customer Service Representatives: 622 average monthly postings
- Maintenance and Repair Workers, General: 467 average monthly postings
- Light Truck or Delivery Service Drivers: 455 average monthly postings
- First-Line Supervisors of Food Preparation and Serving Workers: 419 average monthly postings
- Stock Clerks and Order Fillers: 397 average monthly postings
- First-Line Supervisors of Office and Administrative Support Workers: 344 average monthly postings

Of those occupations, the highest average monthly hires include:

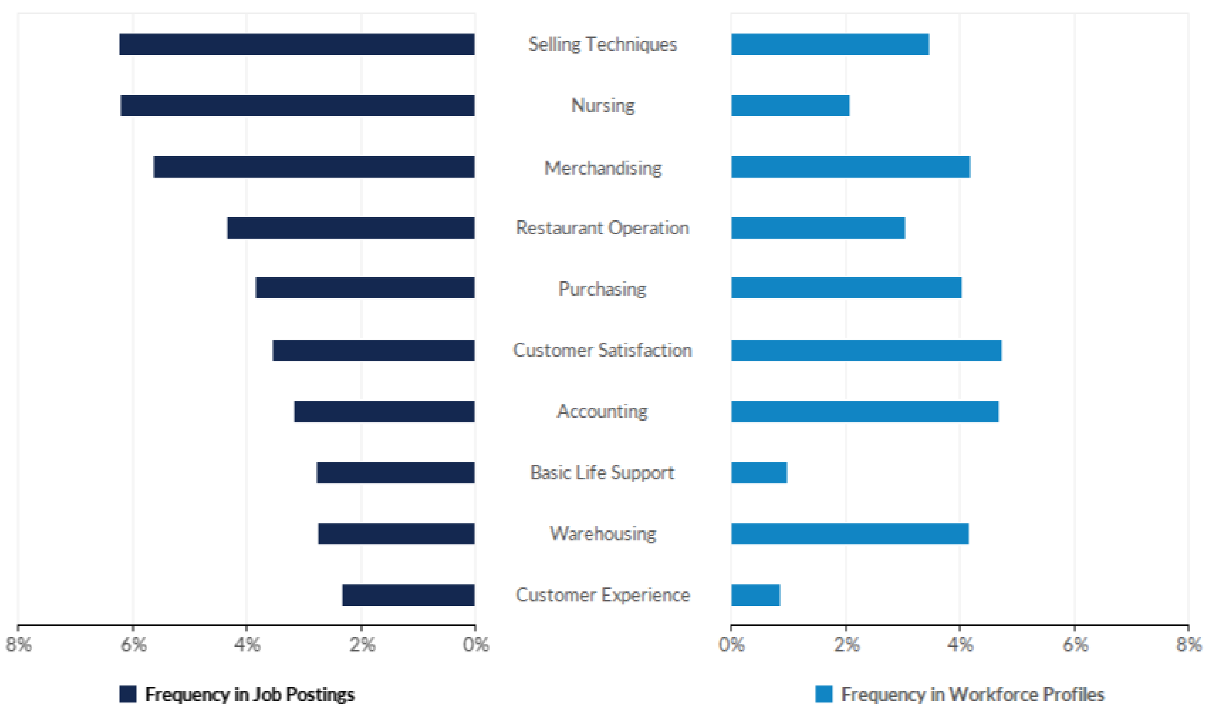
- Retail Salespersons: 1,022 average monthly hires
- Customer Service Representatives: 587 average monthly hires
- Registered Nurses: 435 average monthly hires

In-Demand Skills

The following sub-section provides insight into the supply and demand of relevant skills by comparing the frequency of skills present in job postings against skills present in today's workforce. Along with Emsi's job posting analytics, this comparison leverages Emsi's dataset of more than 100M online resumés and profiles.

Exhibit 4-5 provides an analysis of the top hard skills and their respective frequency as found in both job postings as well as in Workplace Profiles (*Workplace Profiles* are similar to a job description, but also including a set of skills, soft and/or technical, needed to be successful in the job). *Selling Techniques* and *Nursing* are the two most frequent hard skills found in job postings. While *Customer Satisfaction* and *Accounting* represent the two most frequent skills found in Workforce Profiles.

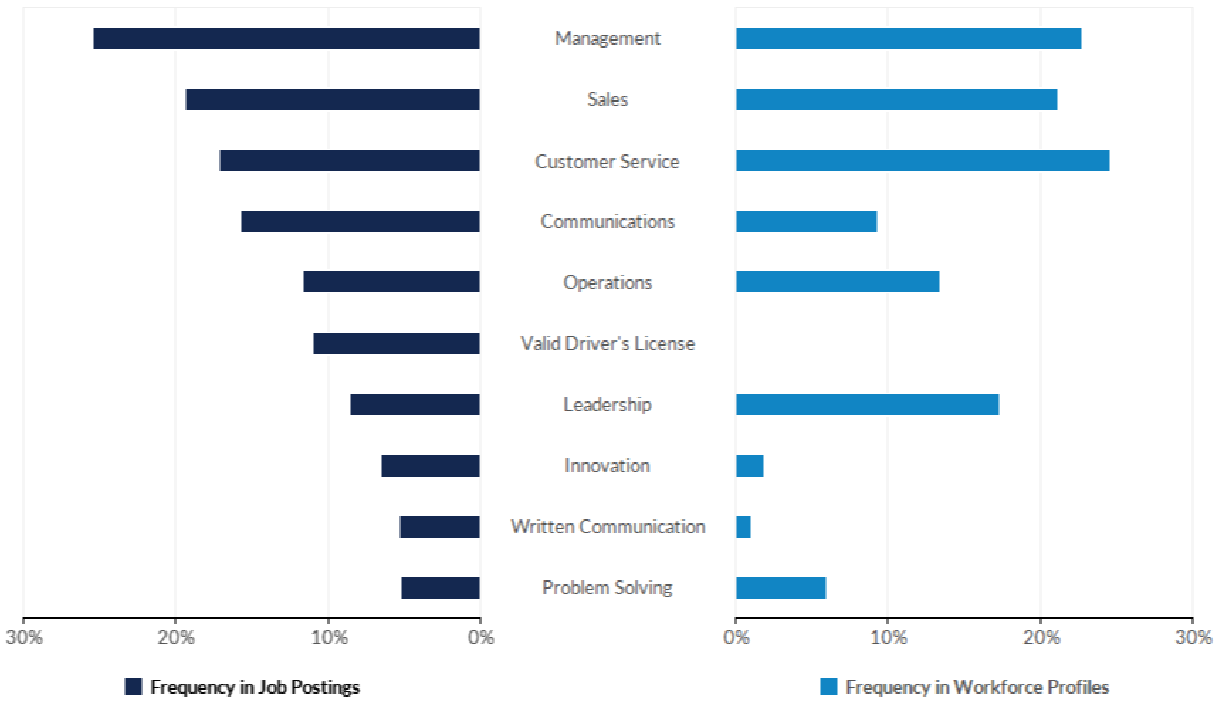
Exhibit 4-5:
Top Hard Skills in Job Postings and Workforce Profiles



Source: EMSI

Exhibit 4-6 provides an analysis of the top common skills and their frequency in both job postings as well as workforce profiles. *Management* and *Sales* are the two most frequently used common skills in job postings, while *Customer Service* and *Management* are the most frequently used in Workforce Profiles.

Exhibit 4-6:
Top Common Skills in Job Postings and Workforce Profiles



Source: EMSI

Finally, Exhibit 4-7 provides a list of the most frequent qualifications or certifications found in job qualifications. The top qualification listed in job postings is a Commercial Driver's License, with over 25,000 postings.

Exhibit 4-7:
Top Qualifications in Job Postings

Qualification	Postings with Qualification
Commercial Driver's License (CDL)	25,243
Licensed Practical Nurse	3,458
CompTIA Security+	3,004
Certified Nursing Assistant	2,848
Critical Care Registered Nurse (CCRN)	2,321
Nurse Practitioner	1,895
CNOR Certification	1,743
Associate Of Science In Nursing	1,313
IAT Level II Certification	1,144
Certified Information Systems Security Professional	1,129

Source: EMSI

4.A.3 Recent Economic Development Projects

Counties, municipalities, and economic development organizations within the study area have, or had within the past twenty-four months, a very aggressive economic development strategy of recruiting new industrial entities and assisting existing industrial tenants expand within their respective borders, including Berkeley, Dorchester, Charleston, and Orangeburg Counties. This recruitment strategy, assisted by the State of South Carolina, and through cooperation have resulted in consistently high numbers of economic development announcements throughout the region. *Economic development announcements* are defined as a new or existing industry or business that locates or expands its operations and promises to invest a certain level of capital investment in real or personal property as well as hire a specified number of new employees.

In reviewing the past twelve months, there have been twenty (20) economic development announcements. These announcements are shown in Exhibit 4-8 and show an estimated $1.137 billion in new capital investment from those firms as well as a promise to hire an additional 2,127 employees over the next one to five years. The type of industry announced varies from distribution and logistics, data centers, IT-related, to automotive suppliers.

While there certainly are many more businesses and industries that have located and/or expanded within the study area, these announcements were publicly available via the South Carolina Department of Commerce. Additionally, these announcements may show the type of project(s) that the State as well as the representative Counties and/or economic development organizations are actively pursuing. Finally, it should be assumed that the businesses have evaluated the labor market and believe that they can accomplish their hiring objectives.

Exhibit 4-8

Economic Development Project Announcements

Company Name	Capital Investment (Millions)	Jobs	Industry Type	Date of Announcement	County of Project
DHL Supply Chain	$100	450	Distribution & Logistics	Apr-19	Dorchester County
Charleston Distilling	$4.20	29	Alcoholic Beverage	Feb-19	Charleston County
The Quality Model Group	$9.50	37	Plastic Injection	Feb-19	Orangeburg County
VTL Precision	$8.20	10	Auto Supplier	Jan-19	Berkeley County
Charleston River Labs	$10.90	180	Biotechnology	Dec-18	Charleston County
W International	$35.20	600	Metal Fabrication	Dec-18	Berkeley County
DeepBD	$1.60	30	IT	Dec-18	Charleston County
Sundaram-Clayton Limited	$40	100	Aluminum Cast Manufacturer	Nov-18	Dorchester County
Bintelli LLC	$2.90	20	Moped, Scooter, & EV Manufacturer	Nov-18	Charleston County
Gnotec Group	$5.90	78	Auto Supplier	Nov-18	Orangeburg County
MAHLE Behr	$36	115	Air Conditioning & Radiator Supplier	Oct-18	Charleston County
Longleaf Packaging, LLC	$6	28	Construction Material Manufacturer	Sep-18	Orangeburg County
Google	$600	0	Data Center	Aug-18	Berkeley County
Organic Standar Solutions International	$2.40	20	Laboratory & Testing	Aug-18	Charleston County
Ingevity	$5	100	Corporate Headquarters	Jul-18	Charleston County
Kuehne + Nagel, Inc	N/A	180	Distribution & Logistics	Jul-18	Charleston County
BLG Logistics	N/A	28	Third Party Logistics	Jun-18	Charleston County
JW Aluminum	$255	50	Flat-rolled Aluminum Manufacturer	Jun-18	Berkeley County
ICL	N/A	25	Minerals & Chemical Supplier	Jun-18	Dorchester County
Valagro	$14	47	Fertilizer Manufacturer	May-18	Orangeburg County

**Source: South Carolina Department of Commerce*

4.A.4 Residential Growth

In section 3.A.4 we evaluated the current residential real estate market, showing a very robust previous eighteen years of residential building permit growth as well as the number of residential closings in the top ten selling subdivisions in the Charleston MSA. This section takes a step further by calling out the planned residential subdivisions in the study area and highlighting the number of planned, permitted, and approved residential units in the area that have not yet been developed.

By showing these planned developments and comparing that to the permits and sales that have occurred, we can make an accurate determination in the level and consistency of residential growth within the study area. This will allow new and/or expanding industries and businesses to be able to make educated decisions on their ability to hire and maintain a quality workforce.

Planned Communities

There are several large planned developments that have been approved within the study area over the past five to ten years. Many of these developments are underway currently, with all the major developments listed still have hundreds of undeveloped lots remaining. The following list outlines the major residential subdivisions and lists their permitted lots:

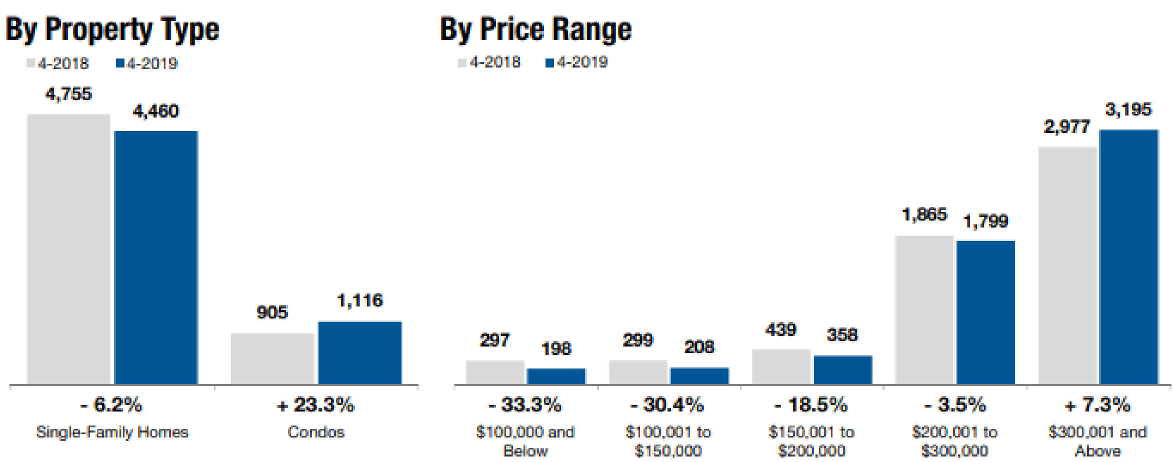
- Cane Bay Plantation: 10,000 units
- Nexton: 13,307 units
- Carnes Crossroads: 6,000 units
- Wildcat Tract: 5,778 units
- Foxbank: 2,125 units

These five (5) major residential developments will ultimately result in over 37,000 single-family residential homes being occupied less than 30 minutes from Camp Hall. Exhibit 2-11 provides a comprehensive view of current and proposed residential development within the study area

Residential Real Estate

In addition to the planned developments with undeveloped residential lots, the current inventory of residential real estate on the market for sale can be a good indicator of residential growth, especially if compared to previous data. Exhibit 4-9 provides a snapshot of the existing residential inventory for sale within the greater Charleston area and shows that the single-family inventory has decreased by 6.2% since April 2018 while the number of condos on the market has increased by 23.3% during that same time. Additionally, the number of homes under $300,000 have decreased within the previous twelve months.

Exhibit 4-9
Inventory of Existing Homes for Sale



Source: Charleston Trident Association of Realtors

Rental Apartments

Beyond single-family residential home growth, the study area is also seeing tremendous growth in the apartment market. Exhibit 4-10 provides a snapshot of the current apartment real estate market and also includes information on apartments that are under construction as well as those in the planning stages.

Within the past twenty-four months, the region has added 7,322 apartment units, with the vacancy rate staying relatively stable during that same time. Additionally, there are currently 5,343 apartment units under construction with an additional 4,544 units proposed, as of February 2019. The submarkets closest to Camp Hall are the Summerville and Goose Creek markets, which have a combined total of 14,391 apartment units with an additional 1,613 units under construction.

Exhibit 4-10
Apartment Market Information

Charleston Market	Feb-17	Aug-17	Feb-18	Aug-18	Feb-19
# of Units	35,752	38,787	39,918	40,680	43,074
# Vacant	3,146	3,452	4,515	4,095	4,566
% Vacant	8.8%	8.9%	11.3%	10.1%	10.6%
Rental Rate (per month)	$1,123	$1,159	$1,170	$1,242	$1,246
Net Absorption	-178	1,725	360	2,206	1,356
Units Under Construction	5,150	5,259	5,439	4,964	5,343
Units Proposed	5,160	5,232	5,685	1,356	4,544

Submarket – February 2019	Total Units	Vacant Units	Vacancy Rate	Rental Rate/Month	Net Absorption	Units Under Construction
Central (Peninsula Inside I-526)	2,489	573	23.0%	$1,767	266	1,815
Goose Creek	5,122	383	7.5%	$1,114	152	802
James/Johns Island	2,278	177	7.8%	$1,409	-67	401
Mt. Pleasant	8,531	1,219	14.3%	$1,567	293	619
North Charleston	5,254	496	9.4%	$990	-78	508
Summerville	9,269	903	9.7%	$1,089	390	811
West Ashley	10,131	815	8.0%	$1,152	400	387
Totals/Averages	43,074	4,566	10.6%	$1,246	1,356	5,343

Source: Real Data Apartment Index Report; Hargett Consulting, LLC; May 2019.

4.B Example Labor Projections for Targeted Industries

The following subsections provide Santee Cooper along with its economic development partners that are responsible for recruiting industries to Camp Hall more specific information related to the recruitment of specific target industries and how those target industries could be successful in recruiting and retaining a qualified workforce from the area surrounding Camp Hall. Furthermore, the following data would be of benefit to the specific industry decision-makers as they evaluate Camp Hall as a business location.

Based on the target industries identified by Santee Cooper, the following three types of industries are used in the following subsections:

- Battery Manufacturer
- Automotive Supplier – excluding engine manufacturer
- Back-Office/Shared Services Operation

Each subsection will provide a basic assumption of employment needs followed by a high-level evaluation of the skills and occupations that would be needed by each respective industry. Finally, an analysis of the workforce, utilizing all the data compiled in the previous sections, will be undertaken providing an estimate of whether said industry would be successful in recruiting its workforce.

4.B.1 Battery Manufacturer

The assumption is that a battery manufacturer may seek to locate at Camp Hall in order to satisfy the needs of Volvo Car's recent announcement that they "aim for 50% of sales to be 'fully electric' by 2025." The following outlines the needs of the company in terms of labor:

- Total Employment at full operation: 2,000
    - Employment spread out over a five-year period: 400 new hires per year
    - Majority of hires focused within the engineering, technical, and production.

Executive Summary

There are approximately 19,723 jobs within the study area that are similar to the positions that the battery manufacturer would need. These types of jobs have increased by 9.7% over the previous five years, outpacing the national growth rate of 4.5%. Furthermore, these occupations are projected to increase an additional 9.5% over the next five years, projecting an additional 1,874 jobs for a total of 21,597 jobs.

These jobs fall within one of thirty-six primary occupations that are typically seen within a similar employer. Occupations range from Industrial Production Managers, Electrical Engineers, Industrial Machinery Mechanics, to First-Line Supervisors of Production and Operating Workers, Computer-Controlled Machine Tool Operators, and Machinists. All thirty-six occupations are listed in Exhibit 4-11.

Regional job concentration per capita for jobs in these thirty-six occupations is 1.09 times the national job concentration. In other words, there are 9% more jobs in these thirty-six occupations in this region than we would expect to find in the average region. This would indicate that employers would have an improved ability to recruit similar workers than other locations within the nation.

The cost of labor in the region is above median. The median earnings for the thirty-six occupations in the region is $19.25 per hour; which is $0.40 per hour (2.1%) above the national median of $18.85 per hour. And there were approximately 1,361 educational completions/graduations in 2017 alone that would assist the graduate in meeting the requirements and skills of the related occupations.

Occupational & Earnings Information

By focusing only on the engineering, technical, and production-related occupations that the battery manufacturer would need, there are approximately thirty-six occupations that relate to the industry or could have transferable skills for the positions to be posted. Exhibit 4-11 (which is provided at the end of this sub-section) provides a very detailed analysis of the occupations and their respective earnings, listing each of the thirty-six occupations and the average earnings for each.

In terms of earning, the average earnings for all the occupations is estimated to be $22.43 per hour and the median earnings is estimated to be $19.25 per hour. The 25th percentile earnings are $14.34 per hour and the 75th percentile earnings are $26.54 per hour.

Educational Completions

Recent graduates of certificate programs or with either an Associate's or Bachelor's degree can add to an industry or business labor recruitment program, provided that the student's education is relevant to the workforce needs of the industry. Based on the occupations outlined in Exhibit 4-11, there were eighteen programs that provided relevant training within the study area. Within those eighteen programs, there were 1,361 graduates or completions in 2017. Exhibit 4-12 provides a snapshot of all relevant education completions and Exhibit 4-13 provides a historic trend of the completions of the relevant programs from 2003 to 2017.

Exhibit 4-12
Battery Manufacturer Relevant Education Completions

18	1,361
Programs (2017)	Completions (2017)

CIP Code	Program	Completions (2013)	Completions (2014)	Completions (2015)	Completions (2016)	Completions (2017)
52.0201	Business Administration and Management, General	778	773	752	802	778
11.0301	Data Processing and Data Processing Technology/Technician	135	142	157	162	138
52.0101	Business/Commerce, General	76	65	82	75	95
15.1501	Engineering/Industrial Management	29	23	84	72	60
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	42	52	63	51	53
47.0604	Automobile/Automotive Mechanics Technology/Technician	46	72	82	84	47
48.0508	Welding Technology/Welder	67	58	92	35	46
14.1001	Electrical and Electronics Engineering	42	36	51	50	45
48.0501	Machine Tool Technology/Machinist	53	40	27	17	22
47.0303	Industrial Mechanics and Maintenance Technology	9	18	34	43	21

Source: EMSI

Exhibit 4-13
Battery Manufacturer Relevant Education Completions Historical Trend

Source: EMSI

Final Recommendation

Based on the above information of similar jobs within the region, estimates of earnings, and educational output, it is estimated that the Battery Manufacturer could hire approximately 400 employees per year within the study area out of the 1,361 annual graduates or the existing labor pool; however, the starting wages for some occupations may need to be slightly higher than the national average.

Report

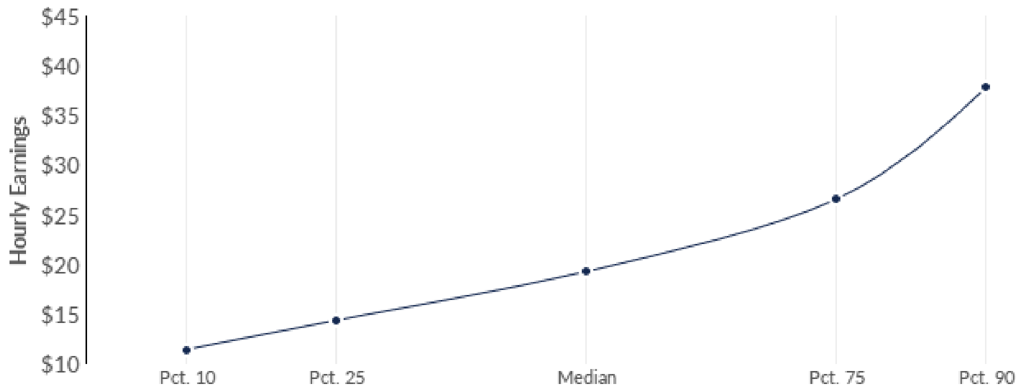
Emsi Q2 2019 Data Set

May 2019

550 Congressional Blvd #145
Indiana 46032

Earnings

$22.43/hr	$14.34/hr	$19.25/hr	$26.54/hr
Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings



Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Industrial Production Managers (11-3051)	$55.35	$37.52	$54.36	$69.70
Electrical Engineers (17-2071)	$41.54	$33.67	$41.59	$48.73
Electronics Engineers, Except Computer (17-2072)	$52.05	$44.69	$53.12	$56.82
Electrical and Electronics Engineering Technicians (17-3023)	$31.29	$21.48	$29.36	$42.82
Electro-Mechanical Technicians (17-3024)	$17.63	$13.66	$17.32	$21.44
Industrial Engineering Technicians (17-3026)	$25.60	$17.33	$24.21	$33.87
Engineering Technicians, Except Drafters, All Other (17-3029)	$29.04	$22.75	$28.73	$35.28
Electric Motor, Power Tool, and Related Repairers (49-2092)	$27.45	$20.70	$26.27	$32.74
Electrical and Electronics Repairers, Commercial and Industrial Equipment (49-2094)	$27.05	$24.28	$27.76	$30.69
Electronic Equipment Installers and Repairers, Motor Vehicles (49-2096)	$16.28	$13.18	$15.94	$19.31
Industrial Machinery Mechanics (49-9041)	$24.21	$19.67	$24.17	$28.34
Maintenance Workers, Machinery (49-9043)	$19.18	$15.28	$18.49	$22.68

Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Precision Instrument and Equipment Repairers, All Other (49-9069)	$22.49	$19.05	$22.12	$25.95
Maintenance and Repair Workers, General (49-9071)	$18.64	$13.55	$17.49	$23.26
Helpers--Installation, Maintenance, and Repair Workers (49-9098)	$13.90	$11.29	$14.00	$16.66
First-Line Supervisors of Production and Operating Workers (51-1011)	$31.91	$23.66	$30.41	$38.96
Coil Winders, Tapers, and Finishers (51-2021)	$15.11	$11.37	$14.59	$17.88
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers (51-2028)	$22.04	$15.22	$22.82	$28.14
Engine and Other Machine Assemblers (51-2031)	$21.70	$16.75	$21.30	$27.08
Assemblers and Fabricators, All Other, Including Team Assemblers (51-2098)	$15.26	$11.93	$14.13	$17.45
Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011)	$21.00	$19.33	$21.27	$23.05
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)	$37.07	$27.38	$37.52	$43.96
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031)	$18.46	$16.06	$18.08	$20.46
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4032)	$17.41	$13.94	$16.78	$20.92
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4033)	$18.39	$14.10	$17.62	$23.89
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4034)	$21.22	$17.10	$21.60	$25.41
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4035)	$14.93	$13.17	$14.90	$17.19
Machinists (51-4041)	$19.08	$15.56	$18.56	$22.38
Welders, Cutters, Solderers, and Brazers (51-4121)	$20.29	$16.19	$19.28	$23.45

Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)	$21.16	$15.57	$20.39	$24.93
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic (51-4191)	$18.19	$15.39	$18.10	$20.84
Layout Workers, Metal and Plastic (51-4192)	$24.21	$18.77	$24.48	$29.46
Metal Workers and Plastic Workers, All Other (51-4199)	$21.16	$15.74	$20.51	$26.15
Semiconductor Processors (51-9141)	$17.95	$13.96	$17.89	$21.43
Helpers--Production Workers (51-9198)	$15.17	$9.92	$12.40	$18.61
Production Workers, All Other (51-9199)	$14.30	$10.35	$12.14	$17.40

Appendix A - Data Sources and Calculations

Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

State Data Sources

This report uses state data from the following agencies: South Carolina Employment Security Commission, Labor Market Information Department

4.B.2 Automotive Supplier

The assumption is that an automotive supplier may be looking to locate at Camp Hall, possibly to improve its supply chain for the adjacent Volvo Car US manufacturing facility. The following outlines the needs of the company in terms of labor:

- Total Employment at full operation: 500
    - Employment will be spread out equally over a five-year period: 100 new hires per year
    - Majority of hires will be focused within the occupations of automotive repair, metal fabrication, machine tool, CNC, and other production-related occupations

Executive Summary

There are approximately 34,289 current jobs within the study area that are similar to the positions that the automotive supplier would need. The similar jobs fall within fifty-six occupations that are listed in Exhibit 4-14. These types of jobs or occupations have increased by 13.9% over the previous five years, outpacing the national growth rate of 9.3%. Furthermore, these occupations are projected to increase an additional 8.7% over the next five years.

Regional job concentration per capita for jobs in these fifty-six occupations is 1.07 times the national job concentration. In other words, there are 7% more jobs in these fifty-six occupations in this region than we would expect to find in the average region. This would indicate that employers would have an improved ability to recruit similar workers than other locations within the nation.

The cost of labor in the region is above median. The median earnings for the fifty-six occupations in the region is $16.93 per hour; which is $0.56 per hour (or 3.4%) above the national median of $16.37 per hour. And there were approximately 1,321 educational completions/graduations in 2017 alone that would assist the graduate in meeting the requirements and skills of the related occupations.

Occupational & Earnings Information

By focusing only on the engineering, technical, and production-related occupations that the automotive supplier would need, there are approximately fifty-six occupations that relate to the industry or could have transferable skills for the positions to be posted. Exhibit 4-14 (which is provided at the end of this sub-section) provides a very detailed analysis of the occupations and their respective earnings, listing each of the fifty-six occupations and the average earnings for each.

In terms of earning, the average earnings for all the occupations is estimated to be $19.20 per hour and the median earnings is estimated to be $16.93 per hour. The 25th percentile earnings are $12.80 per hour and the 75th percentile earnings are $23.49 per hour.

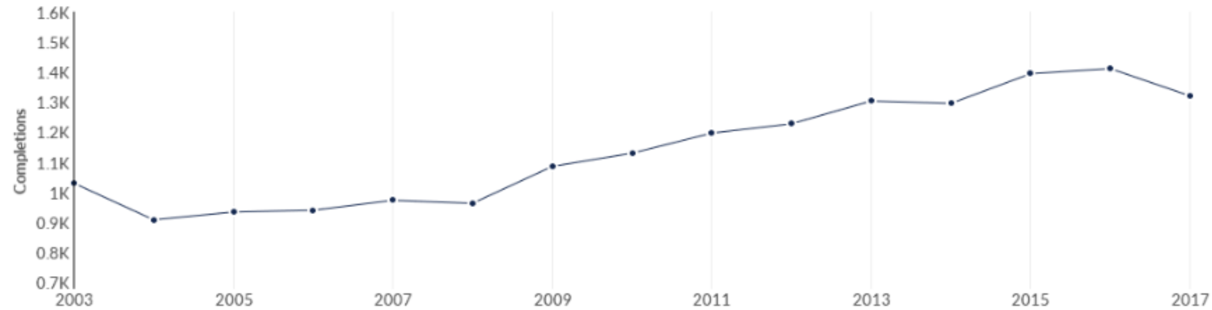
Educational Completions

Recent graduates of certificate programs or with either an Associate's or Bachelor's degree can add to an industry or business labor recruitment program, provided that the student's education is relevant to the workforce needs of the industry. Based on the occupations outlined in Exhibit 4-14, there were seventeen programs that provided relevant training within the study area. Within those seventeen programs, there were 1,321 graduates or completions in 2017. Exhibit 4-15 provides a snapshot of all relevant education completions and Exhibit 4-16 provides a historic trend of the completions of the relevant programs from 2003 to 2017.

Exhibit 4-15
Automotive Supplier Relevant Education Completions

17 Programs (2017)		1,321 Completions (2017)				
CIP Code	Program	Completions (2013)	Completions (2014)	Completions (2015)	Completions (2016)	Completions (2017)
52.0201	Business Administration and Management, General	778	773	752	802	778
11.0301	Data Processing and Data Processing Technology/Technician	135	142	157	162	138
52.0101	Business/Commerce, General	76	65	82	75	95
15.1501	Engineering/Industrial Management	29	23	84	72	60
47.0604	Automobile/Automotive Mechanics Technology/Technician	46	72	82	84	47
48.0508	Welding Technology/Welder	67	58	92	35	46
50.0409	Graphic Design	53	45	33	31	26
15.0805	Mechanical Engineering/Mechanical Technology/Technician	15	19	10	14	23
48.0501	Machine Tool Technology/Machinist	53	40	27	17	22
47.0303	Industrial Mechanics and Maintenance Technology	9	18	34	43	21

Exhibit 4-16
Supplier Relevant Education Completions Historical Trend



Final Recommendation

Based on the above information of similar jobs within the region, estimates of earnings, and educational output, it is estimated that the Automotive Supplier could easily hire approximately 100 employees per year out of the 1,321 new graduates or existing labor pool within the study area over a five-year period; however, the starting wages for some occupations may need to be slightly hirer than the national average.

Report

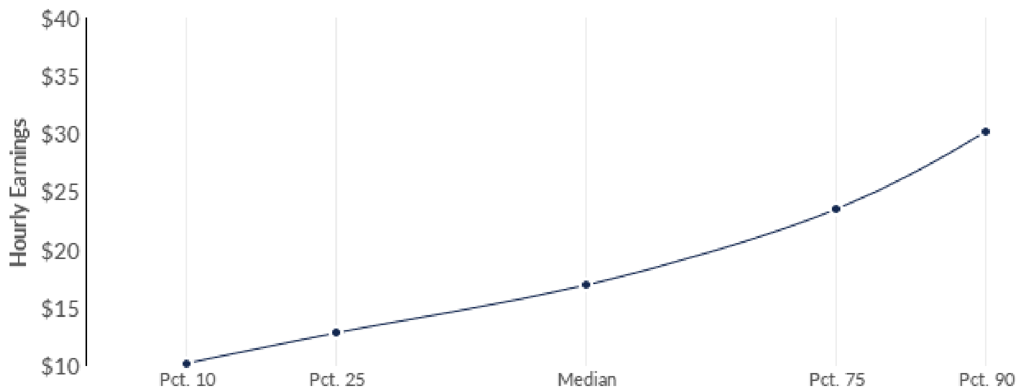
Emsi Q2 2019 Data Set

May 2019

550 Congressional Blvd #145
Indiana 46032

Earnings

$19.20/hr	$12.80/hr	$16.93/hr	$23.49/hr
Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings



Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Industrial Production Managers (11-3051)	$55.35	$37.52	$54.36	$69.70
Industrial Engineering Technicians (17-3026)	$25.60	$17.33	$24.21	$33.87
Mechanical Engineering Technicians (17-3027)	$28.15	$25.73	$28.01	$30.30
Engineering Technicians, Except Drafters, All Other (17-3029)	$29.04	$22.75	$28.73	$35.28
First-Line Supervisors of Mechanics, Installers, and Repairers (49-1011)	$27.61	$21.21	$26.51	$31.48
Automotive Body and Related Repairers (49-3021)	$20.75	$16.11	$19.39	$24.14
Automotive Glass Installers and Repairers (49-3022)	$18.71	$15.58	$18.52	$21.41
Automotive Service Technicians and Mechanics (49-3023)	$19.85	$14.37	$18.10	$24.39
Tire Repairers and Changers (49-3093)	$12.59	$10.37	$11.72	$14.52
Mechanical Door Repairers (49-9011)	$19.22	$14.50	$17.69	$22.87
Control and Valve Installers and Repairers, Except Mechanical Door (49-9012)	$14.35	$8.49	$11.48	$14.71
Maintenance Workers, Machinery (49-9043)	$19.18	$15.28	$18.49	$22.68

Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Precision Instrument and Equipment Repairers, All Other (49-9069)	$22.49	$19.05	$22.12	$25.95
Maintenance and Repair Workers, General (49-9071)	$18.64	$13.55	$17.49	$23.26
Helpers--Installation, Maintenance, and Repair Workers (49-9098)	$13.90	$11.29	$14.00	$16.66
Installation, Maintenance, and Repair Workers, All Other (49-9099)	$18.78	$14.13	$18.01	$24.39
First-Line Supervisors of Production and Operating Workers (51-1011)	$31.91	$23.66	$30.41	$38.96
Engine and Other Machine Assemblers (51-2031)	$21.70	$16.75	$21.30	$27.08
Structural Metal Fabricators and Fitters (51-2041)	$16.84	$13.92	$17.72	$20.72
Fiberglass Laminators and Fabricators (51-2091)	$13.87	$10.93	$13.48	$16.51
Timing Device Assemblers and Adjusters (51-2093)	$22.76	$17.34	$21.70	$25.95
Assemblers and Fabricators, All Other, Including Team Assemblers (51-2098)	$15.26	$11.93	$14.13	$17.45
Computer-Controlled Machine Tool Operators, Metal and Plastic (51-4011)	$21.00	$19.33	$21.27	$23.05
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (51-4012)	$37.07	$27.38	$37.52	$43.96
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4021)	$20.58	$13.85	$20.52	$26.40
Forging Machine Setters, Operators, and Tenders, Metal and Plastic (51-4022)	$22.27	$12.09	$18.57	$32.56
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic (51-4023)	$21.51	$16.43	$23.44	$27.29
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031)	$18.46	$16.06	$18.08	$20.46
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4032)	$17.41	$13.94	$16.78	$20.92

Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4033)	$18.39	$14.10	$17.62	$23.89
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4034)	$21.22	$17.10	$21.60	$25.41
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic (51-4035)	$14.93	$13.17	$14.90	$17.19
Machinists (51-4041)	$19.08	$15.56	$18.56	$22.38
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081)	$20.12	$17.26	$20.17	$24.04
Tool and Die Makers (51-4111)	$24.36	$21.47	$24.38	$27.87
Welders, Cutters, Solderers, and Brazers (51-4121)	$20.29	$16.19	$19.28	$23.45
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders (51-4122)	$21.16	$15.57	$20.39	$24.93
Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic (51-4191)	$18.19	$15.39	$18.10	$20.84
Layout Workers, Metal and Plastic (51-4192)	$24.21	$18.77	$24.48	$29.46
Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic (51-4193)	$14.32	$10.34	$13.52	$17.54
Tool Grinders, Filers, and Sharpeners (51-4194)	$20.50	$15.28	$19.95	$24.61
Metal Workers and Plastic Workers, All Other (51-4199)	$21.16	$15.74	$20.51	$26.15
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers (51-6091)	$21.04	$16.49	$21.14	$25.36
Upholsterers (51-6093)	$15.53	$11.95	$14.93	$18.87
Grinding and Polishing Workers, Hand (51-9022)	$14.73	$12.40	$14.89	$17.83
Mixing and Blending Machine Setters, Operators, and Tenders (51-9023)	$16.32	$11.48	$14.24	$20.01
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders (51-9121)	$18.18	$15.08	$18.27	$21.34
Painters, Transportation Equipment (51-9122)	$21.94	$17.65	$20.95	$24.58

Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Painting, Coating, and Decorating Workers (51-9123)	$10.37	$8.76	$10.26	$11.56
Tire Builders (51-9197)	$13.14	$9.84	$13.12	$16.90
Helpers--Production Workers (51-9198)	$15.17	$9.92	$12.40	$18.61
Production Workers, All Other (51-9199)	$14.30	$10.35	$12.14	$17.40
Industrial Truck and Tractor Operators (53-7051)	$19.05	$13.28	$16.80	$23.81
Laborers and Freight, Stock, and Material Movers, Hand (53-7062)	$15.11	$10.95	$13.57	$16.75
Packers and Packagers, Hand (53-7064)	$10.49	$8.49	$9.45	$11.34
Material Moving Workers, All Other (53-7199)	$15.69	$10.94	$13.49	$19.31

Appendix A - Data Sources and Calculations

Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

State Data Sources

This report uses state data from the following agencies: South Carolina Employment Security Commission, Labor Market Information Department

4.B.3 Back-Office/Shared Services Operation

The assumption is that a Back-Office/Shared Services operation would like to locate in Camp Hall. The following outlines the needs of the company in terms of labor:

- Total Employment at full operation: 250
    - Employment spread out over a five-year period: 50 new hires per year
    - Majority of hires will be focused within the occupations of IT, finance, and administrative-related occupations

Executive Summary

There are approximately 45,977 jobs within the study area that are similar to the positions that the Back-Office/Shared Services Operation would need. These types of jobs have increased by 13.4% over the previous five years, outpacing the national growth rate of 5%. Furthermore, these occupations are projected to increase an additional 7.1% over the next five years.

Regional job concentration per capita for jobs in these thirty-four occupations is 0.95 times the national job concentration. In other words, there are 5% fewer jobs in these thirty-four occupations in this region than we would expect to find in the average region. This would indicate that employers may have a slightly harder time in recruiting similar workers than other locations within the nation.

The cost of labor in the region is below the national median. The median earnings for the thirty-four occupations in the region is $17.81 per hour; which is $1.59 per hour (or 8.2%) below the national median of $19.40 per hour. And there were approximately 723 educational completions/graduations in 2017 alone that would assist the graduate in meeting the requirements and skills of the related occupations.

Occupational & Earnings Information

By focusing only on the finance, IT, and administrative-related occupations that the back-office/shared services operation would need, there are approximately thirty-four occupations that relate to the industry or could have transferable skills for the positions to be posted. Exhibit 4-17 (which is provided at the end of this sub-section) provides a very detailed analysis of the occupations and their respective earnings, listing each of the thirty-four occupations and the average earnings for each.

In terms of earning, the average earnings for all the occupations is estimated to be $21.60 per hour and the median earnings is estimated to be $17.81 per hour. The 25th percentile earnings are $13.56 per hour and the 75th percentile earnings are $17.81 per hour.

Educational Completions

Recent graduates of certificate programs or with either an Associate's or Bachelor's degree can add to an industry or business labor recruitment program, provided that the student's education is relevant to the workforce needs of the industry. Based on the occupations outlined in Exhibit 4-17, there were twenty-five programs that provided relevant training within the study area. Within those twenty-five programs, there were 723 graduates or completions in 2017. Exhibit 4-18 provides a snapshot of all relevant education completions and Exhibit 4-19 provides a historic trend of the completions of the relevant programs from 2003 to 2017.

Exhibit 4-18
Back-Office/Shared Services Relevant Education Completions

25 Programs (2017)		723 Completions (2017)				
CIP Code	Program	Completions (2013)	Completions (2014)	Completions (2015)	Completions (2016)	Completions (2017)
52.0301	Accounting	254	226	263	215	175
11.0301	Data Processing and Data Processing Technology/Technician	135	142	157	162	138
52.0407	Business/Office Automation/Technology/Data Entry	98	85	114	97	82
11.0101	Computer and Information Sciences, General	55	55	65	77	69
52.0801	Finance, General	3	37	49	63	69
52.0401	Administrative Assistant and Secretarial Science, General	47	47	39	62	51
11.0701	Computer Science	18	18	22	34	31
11.0801	Web Page, Digital/Multimedia and Information Resources Design	12	7	12	15	25
11.0401	Information Science/Studies	3	2	4	13	23
51.2706	Medical Informatics	0	0	0	0	21

Source: EMSI

Exhibit 4-19
Back-Office/Shared Services Relevant Education Completions Historical Trend

Source: EMSI

Final Recommendation

Based on the above information of similar jobs within the region, estimates of earnings, and educational output, it is estimated that the Back-Office/Share Services operation could hire approximately 50 employees per year within the study area over a five-year period out of the 723 graduates or existing labor pool; however, the recruitment may require more evaluation of the talent. The business may be able to increase its starting wages to recruit more experienced workers from existing businesses and remain below the national hourly averages.

Report

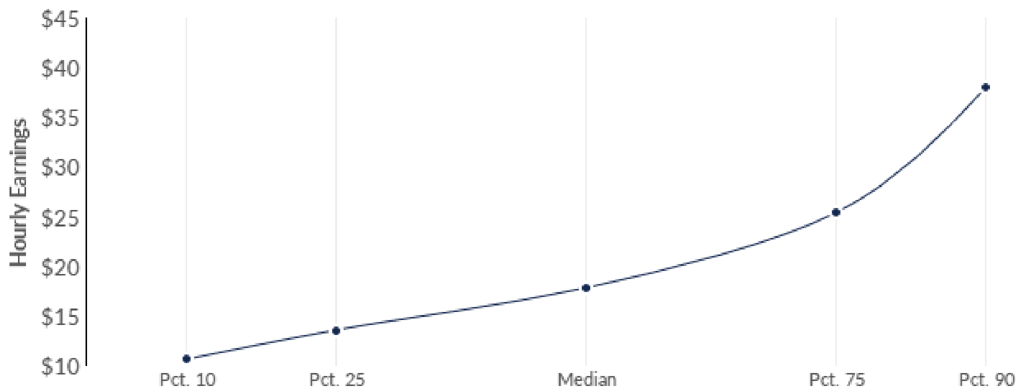
Emsi Q2 2019 Data Set

May 2019

550 Congressional Blvd #145
Indiana 46032

Earnings

$21.60/hr	$13.56/hr	$17.81/hr	$25.39/hr
Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings



Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Computer and Information Systems Managers (11-3021)	$61.67	$44.18	$58.13	$73.40
Accountants and Auditors (13-2011)	$28.13	$18.96	$26.13	$35.01
Financial Analysts (13-2051)	$38.66	$25.43	$31.71	$39.62
Computer Systems Analysts (15-1121)	$38.42	$27.51	$36.97	$47.75
Information Security Analysts (15-1122)	$40.85	$30.43	$40.70	$51.77
Computer Programmers (15-1131)	$35.75	$27.97	$34.90	$42.47
Database Administrators (15-1141)	$37.31	$25.12	$32.06	$48.46
Network and Computer Systems Administrators (15-1142)	$40.76	$30.60	$38.61	$49.52
Computer Network Architects (15-1143)	$40.77	$29.58	$37.52	$49.28
Computer User Support Specialists (15-1151)	$25.03	$18.48	$23.61	$30.57
Computer Network Support Specialists (15-1152)	$29.11	$22.56	$27.86	$34.69
Computer Occupations, All Other (15-1199)	$44.53	$36.36	$45.40	$53.09
Telemarketers (41-9041)	$12.31	$8.99	$10.87	$14.01

Occupation	Average Earnings	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
First-Line Supervisors of Office and Administrative Support Workers (43-1011)	$25.19	$18.87	$23.84	$29.80
Switchboard Operators, Including Answering Service (43-2011)	$14.83	$13.04	$14.40	$16.20
Telephone Operators (43-2021)	$16.04	$10.16	$13.91	$20.99
Communications Equipment Operators, All Other (43-2099)	$11.97	$9.14	$11.57	$14.17
Bill and Account Collectors (43-3011)	$17.71	$13.31	$16.90	$20.74
Billing and Posting Clerks (43-3021)	$17.01	$14.36	$16.75	$19.03
Bookkeeping, Accounting, and Auditing Clerks (43-3031)	$17.38	$14.00	$16.91	$19.67
Customer Service Representatives (43-4051)	$15.41	$11.74	$14.36	$17.83
File Clerks (43-4071)	$15.20	$12.33	$14.55	$17.42
New Accounts Clerks (43-4141)	$20.05	$16.58	$18.75	$21.71
Order Clerks (43-4151)	$16.48	$13.80	$16.22	$18.84
Receptionists and Information Clerks (43-4171)	$13.82	$11.06	$13.41	$15.62
Information and Record Clerks, All Other (43-4199)	$20.31	$17.76	$20.51	$23.03
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive (43-6014)	$17.13	$13.43	$16.70	$20.25
Computer Operators (43-9011)	$23.83	$17.82	$24.41	$29.11
Data Entry Keyers (43-9021)	$14.08	$11.96	$13.59	$15.61
Word Processors and Typists (43-9022)	$17.04	$14.14	$16.19	$19.81
Desktop Publishers (43-9031)	$18.05	$12.47	$16.86	$23.30
Insurance Claims and Policy Processing Clerks (43-9041)	$19.76	$14.72	$18.32	$23.63
Office Clerks, General (43-9061)	$12.95	$9.47	$12.72	$15.57
Office and Administrative Support Workers, All Other (43-9199)	$22.26	$18.05	$21.15	$25.74

Appendix A - Data Sources and Calculations

Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

State Data Sources

This report uses state data from the following agencies: South Carolina Employment Security Commission, Labor Market Information Department

4.C Example Labor Projections by Occupation and Wage

Taking our analysis one-step further, we can identify some example occupations that would be common to the types of industries that South Carolina's economic development organizations would be a good fit to recruit to Camp Hall and analyze the likelihood of a business or industry being able to recruit said occupations within the study area. We can then layer a starting hourly wage with that occupation title, which would determine the number of potential workers the business could attract from within same and similar occupations within the study area.

For this subsection, we have identified three occupation titles with a corresponding hourly wage that we will perform this occupation and wage analysis:

- Front-line Supervisors of Production-related Employees at $25 per hour;
- Production-related Employees at $15 per hour; and
- Administrative-related Employees at $15 per hour.

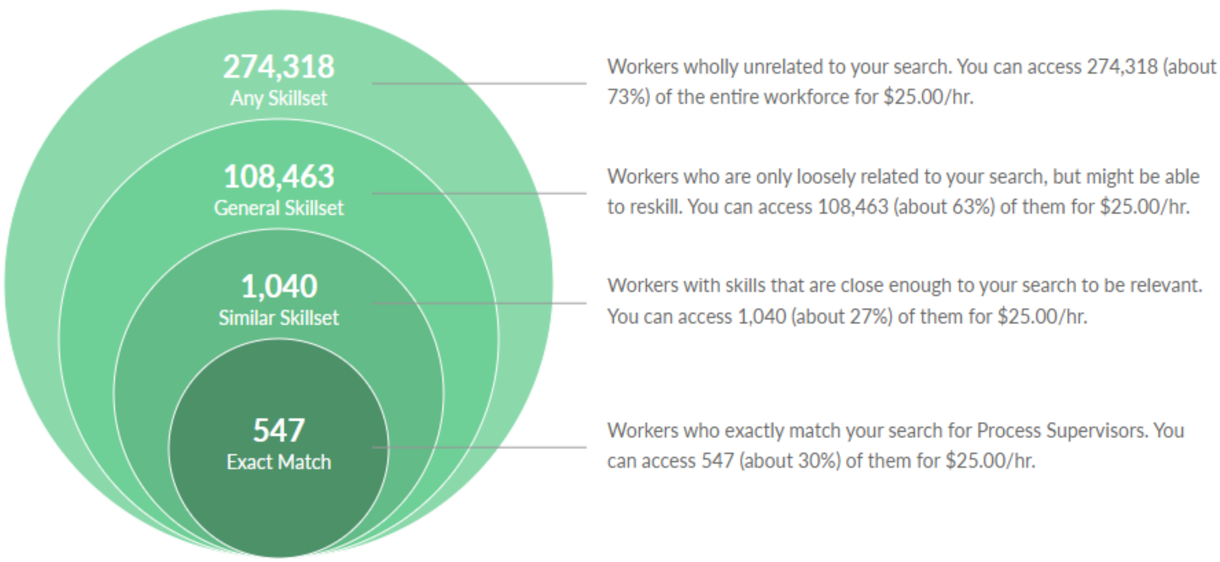
The following subsections outline the availability of workers within this classification with those that have a similar skillset. This information would allow businesses to make an informed decision on their ability to recruit and retain employees within the study area.

4.C.1 Front Line Supervisors

Front-line supervisors are individuals that directly supervise workers on a production line. Their skill set has a largely technical component, specific to each job; however, the front-line supervisor also has a high management and supervisory component. Many of the front-line supervisors in an industry have served in production-level occupations and with a combination of experience and education have been promoted to their current level. Because of this promotion, new businesses and industries that are hiring front-line supervisors must carefully analyze each individual's resume and background and ensure that the individual is a "fit" for the business.

Based on a starting hourly salary of $25 per hour, there are approximately 547 exact matches to the occupation First-Line Supervisor of Production and Operating Workers. Expanding the occupation search to those occupations with similar skillsets, the pool of qualified individuals increases to 1,040. Exhibit 4-20 provides an overview of the quantity of the pool of workers that meet the skillset of a front-line supervisor. The business can increase or decrease the available pool of workers by tightening or loosening the occupational and skillset requirements as seen in Exhibit 4-20, allowing the business to draw up as much as 274,318 workers.

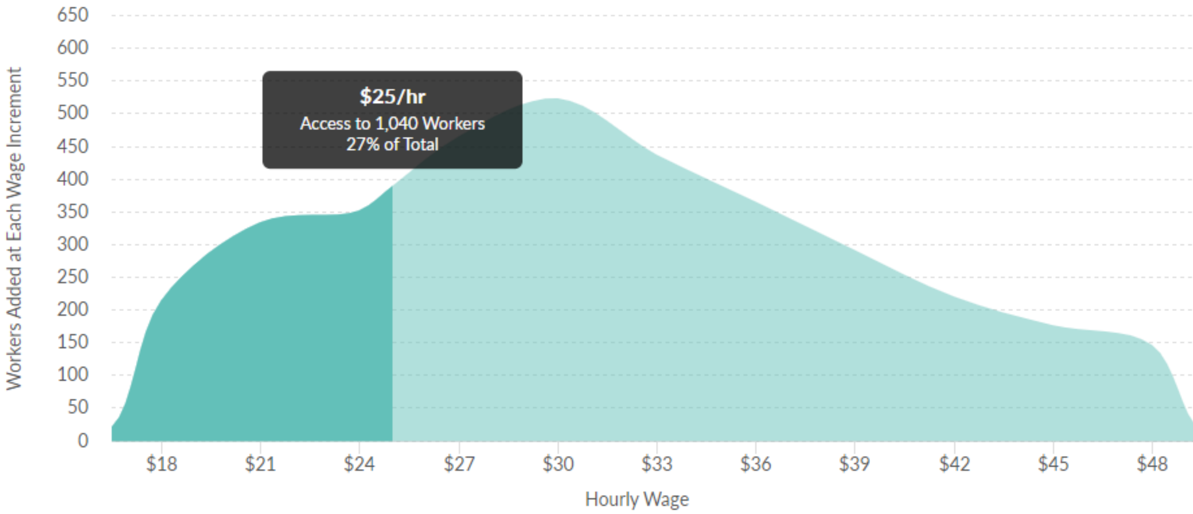
Exhibit 4-20
Workforce Availability of Front-Line Supervisors at $25/HR



Source: EMSI

Furthermore, Exhibit 4-21 provides a graph of the availability of Front-Line Supervisors by wage. As one can see, a starting hourly wage of $25/HR enables the business to access approximately 27% of the total pool of relevantly skilled workers within the study area. By increasing the hourly salary to $30/HR, the business can access 50% of the total pool, increasing the pool to 1,887 workers.

Exhibit 4-21
Availability of Front-Line Supervisors by Wage



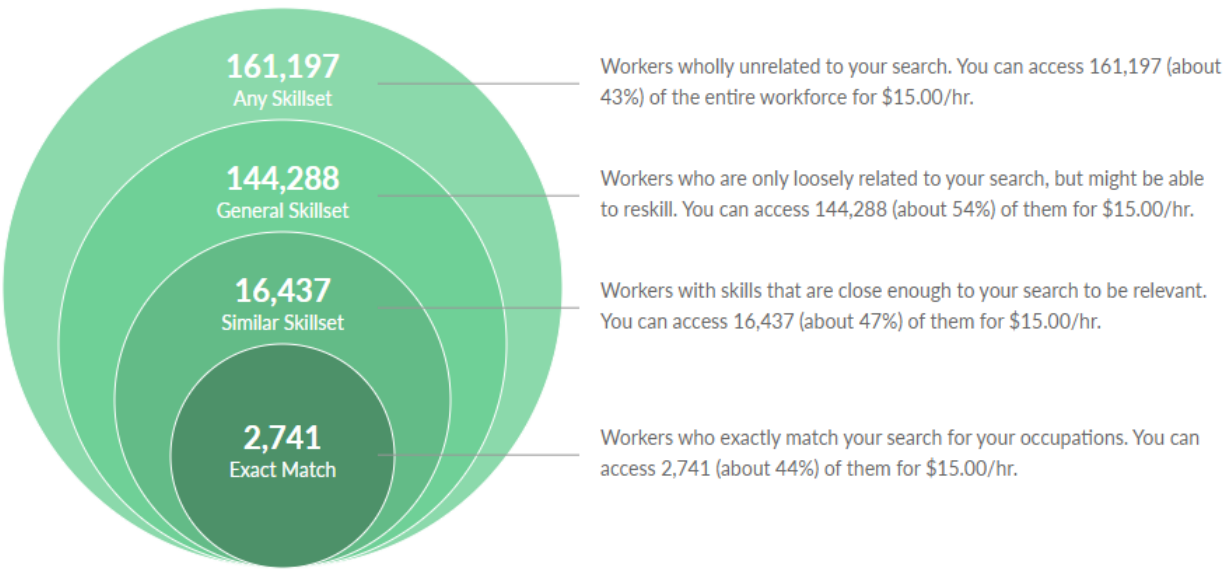
Source: EMSI

4.C.2 Production-Related Occupations

Production-related occupations are the most common employees for manufacturing-related industries. These workers vary from assemblers and fabricator occupations to more technical occupations like computer numerical control (CNC) and machine tool operators.

Based on a starting hourly salary of $15 per hour, there are approximately 2,741 exact matches to the occupation of Production-Related Workers. Expanding the occupation search to those occupations with similar skillsets, the pool of qualified individuals increases to 16,437. Exhibit 4-22 provides an overview of the quantity of the pool of workers that meet the skillset of production-related positions. The business can increase or decrease the available pool of workers by tightening or loosening the occupational and skillset requirements as seen in Exhibit 4-22, allowing the business to draw up as much as 161,197 workers.

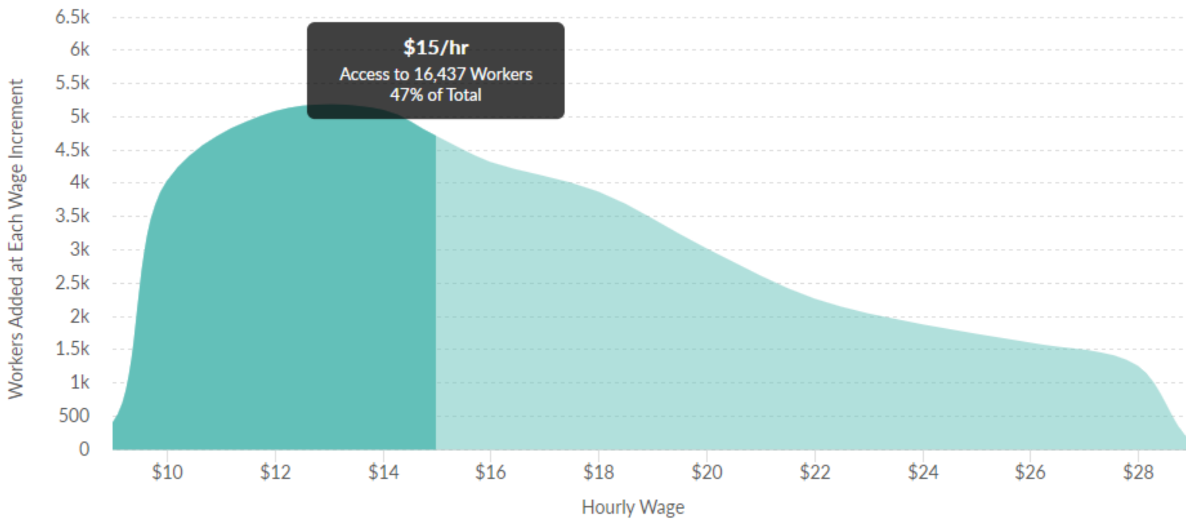
Exhibit 4-22
Workforce Availability of Production-Related Occupations at $18/HR



Source: EMSI

Furthermore, Exhibit 4-23 provides a graph of the availability of Production-Related Occupations by wage. As one can see, a starting hourly wage of $15/HR enables the business to access approximately 47% of the total pool of relevantly skilled workers within the study area. By increasing the hourly salary to $20/HR, the business can access 73% of the total pool, increasing the pool to 25,433workers.

Exhibit 4-23
Availability of Production-Related Occupations by Wage



Source: EMSI

Lastly, Exhibit 4-24 provides a list of occupations with the respective number of workers with that occupation, that have similar occupational skill sets to those that would be needed in Production-Related occupations.

Exhibit 4-24
Similar Skillsets to Production-Related Occupations

Occupation	Workers Making ≤ $15.00/hr
Laborers and Freight, Stock, and Material Movers, Hand	4,274
Landscaping and Groundskeeping Workers	2,048
Assemblers and Fabricators, All Other, Including Team Assemblers	2,045
Dishwashers	1,371
Laundry and Dry-Cleaning Workers	458
Industrial Truck and Tractor Operators	439
Helpers--Installation, Maintenance, and Repair Workers	386
Helpers--Production Workers	327
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	314
Sewing Machine Operators	294

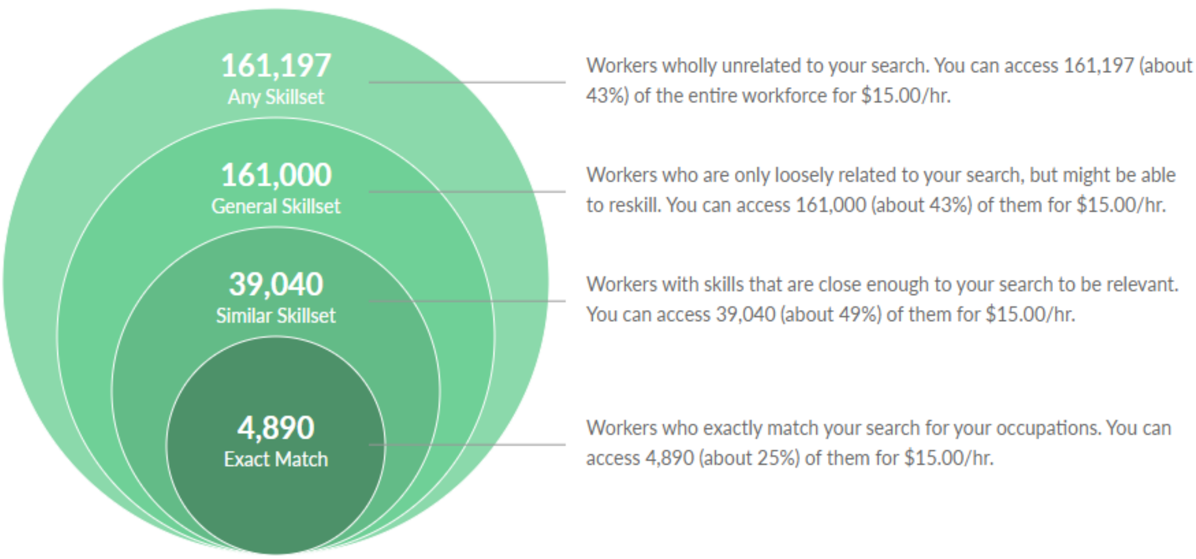
Source: EMSI

4.C.3 Administrative-Related Occupations

Administrative-related occupations are the most common employees for back-office and/or shared services businesses. These workers vary from secretaries and administrative assistants to more financial-focused occupations such as financial analysts, bookkeepers, and financial clerks.

Based on a starting hourly salary of $15 per hour, there are approximately 4,890 exact matches to the occupation of Administrative-Related Workers. Expanding the occupation search to those occupations with similar skillsets, the pool of qualified individuals increases to 39,040. Exhibit 4-25 provides an overview of the quantity of the pool of workers that meet the skillset of production-related positions. The business can increase or decrease the available pool of workers by tightening or loosening the occupational and skillset requirements as seen in Exhibit 4-25, allowing the business to draw up as much as 161,197 workers.

Exhibit 4-25
Workforce Availability of Administrative-Related Occupations at $15/HR



Source: EMSI

Furthermore, Exhibit 4-26 provides a graph of the availability of Administrative-Related Occupations by wage. As one can see, a starting hourly wage of $15/HR enables the business to access approximately 49% of the total pool of relevantly skilled workers within the study area. By increasing the hourly salary to $20/HR, the business can access 70% of the total pool, increasing the pool to 55,494 workers.

Exhibit 4-26
Availability of Administrative-Related Occupations by Wage

Source: EMSI

Lastly, Exhibit 4-27 provides a list of occupations with the respective number of workers with that occupation, that have similar occupational skill sets to those that would be needed in Administrative-Related occupations.

Exhibit 4-27
Similar Skillset Occupations to Administrative-Related Occupations

Occupation	Workers Making ≤ $15.00/hr
Retail Salespersons	10,611
Cashiers	10,462
Office Clerks, General	4,103
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,647
Receptionists and Information Clerks	1,725
Bookkeeping, Accounting, and Auditing Clerks	1,266
Hotel, Motel, and Resort Desk Clerks	1,164
First-Line Supervisors of Retail Sales Workers	1,079
Pharmacy Technicians	717
Counter and Rental Clerks	658

Source: EMSI