

Charles County Workforce Study

Prepared for
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1.0 Executive Summary

The Charles County Economic Development Department (“the Client”) sought a study to understand the workforce of Charles County, focusing on how the county’s population contributes to the workforce in the surrounding areas and how this workforce aligns with the county’s target industries. More specifically, the Client was interested in how Charles County’s skilled workforce could be an asset in attracting these industries to the area.

To achieve the project objective, the Client contracted with the Regional Economic Studies Institute (RESI) of Towson University and the Schaefer Center for Public Policy (“the Project Team”). Based on the research needs of the Client, the Project team developed a three-phase methodology.

- The first phase of the project consisted of a literature review and analysis of secondary data to provide context on current and historical employment, demographics, and socioeconomic conditions in the county.
- The second phase of the project consisted of primary data collection and analysis through a phone survey of Charles County residents. Examination of primary data included summaries and cross tabulations of survey responses to gain additional insight into trends by industry, occupation, educational attainment, and age, among other demographic indicators.
- The third phase of the project utilized secondary data from the U.S. Census American Community Survey (ACS) to evaluate the industries and occupational groups of Charles County workers, focusing on out-of-county commuters, and to evaluate alignment of survey results with the ACS sample.

Major findings from the analysis include the following:

- Nearly 80 percent of respondents commuting outside of the county cited salaries and benefits or employment opportunities as the primary reason for leaving Charles County for work. These statistics demonstrate that Charles County is an attractive place to live, despite limited employment opportunities, and that potential future employers in the county would have access to employees with strong ties to the area.
- The survey results suggest that residents of Charles County that are employed outside the county are more highly educated than the total working-age population in the county. This trend from the survey data further emphasizes that employment opportunities within the county are unmatched to the qualifications of its resident workforce, as is noted in the strategic plan.¹

¹ Garner Economics LLC, “A Proactive Approach to Shaping the Economic Future of Charles County, Maryland,” 23-39, accessed June 18, 2018, http://www.meetcharlescounty.com/clientuploads/directory/downloads/download_files/CharlesCounty_final_051316.pdf.

- The analysis of U.S. Census ACS data showed the major industries (two-digit NAICS) with the greatest number of Charles County residents commuting outside of the county were in the Public Administration industry, the Health Care and Social Assistance industry, and the Professional, Scientific, and Technical Services industry. These industries largely align with the top three industries found through the dedicated survey analysis.
- The evaluation of U.S. Census ACS data by detailed industry codes revealed that the greatest number of out-of-county commuters were employed in National Security and International Affairs (4,686 individuals), Justice, Public Order, and Safety Activities (3,005 individuals), Hospitals (2,453), and Computer Systems Design and Related Services (2,161 individuals).
- The analysis of U.S. Census ACS data showed the major occupational groups (two-digit SOCs) with the greatest number of Charles County residents commuting outside of the county were in Office and Administrative Support occupations (8,466 individuals), and Management occupations (6,537 individuals).
- The evaluation of U.S. Census ACS by detailed occupational codes showed that the greatest number of out-of-county commuters were employed as Managers, All Other (2,695 individuals); Executive Secretaries and Executive Administrative Assistants (2,148 individuals); and First-Line Supervisors of Office and Administrative Support Workers (1,512 individuals).
- The Project Team's analysis further strengthens the case for the target industries outlined in Charles County's strategic plan, and serves as solid evidence that there is substantial opportunity for growth of these industries within the county based on the existing workforce. The survey results indicate that three of the four target industries identified in Charles County's strategic plan for economic development have relatively high shares of out-of-county commuters who have the knowledge and skillsets that businesses in the target industries can utilize. Similarly, respondents' occupational groups also demonstrated prominent connections to Charles County's strategic plan for economic development.
- Occupational classification of respondents revealed that out-of-county commuters living in Charles County are employed in both high- and low-paying occupations, indicating that there is not a high degree of concentration of a particular socioeconomic group that travels out of the county for work.

Though the analysis, the Project Team identified several strategies that Charles County can take to attract additional businesses to the county. The team recommends that Charles County:

- Leverage partnerships between emerging and established medical firms and the Health Sciences Division at the College of Southern Maryland, Charles County to cultivate an attractive business environment for new health services firms. For example, the county

could advertise itself as a healthcare innovator by highlighting local initiatives, such as the recently-unveiled Tele-Psych Program. Furthermore, this model could be expanded upon as a vehicle to address unmet healthcare demand within the county and beyond.

- Make improvements in the transportation infrastructure, create denser inner cores with high walkability, and increase awareness about Charles County as a tourism destination to attract and strengthen entrepreneurial and retail industries in the county. Examples of these projects are already underway within the county, such as the Waldorf Center within the Waldorf Urban Redevelopment Center and the Waldorf Station project in north Waldorf. The Project Team recommends that the County continues to support the mixed-use developments currently underway to capture demand for experiential retail establishments and pedestrian-friendly outdoor centers, and considers establishing or partnering with a local incubator in Waldorf Center or Waldorf Station to help attract and support a variety of new businesses in an easily-accessible environment.
- Highlight Charles County's proximity to federal clients, including those in Washington, D.C. and regional military installations, with the benefit of lower costs of doing business. It is recommended that the County highlight the "Business Costs" page of the Charles County Economic Development Department website to increase visibility of these benefits to businesses that are considering relocating or establishing within the county.² Additionally, residents' loyalty to the area can be advertised as evidence of a stable workforce for businesses who choose to locate in the Charles County. The large numbers of workers enduring long commutes to live in the county presents an opportunity for businesses to employ these workers locally. This is a mutually-beneficial relationship, as research has shown that short commute times enhance workers' quality of life and reduce employee turnover and associated costs to employers.
- Utilize resources available through platforms such as the Maryland Workforce Exchange (MWE) to connect commuters to job opportunities in the county. The MWE is a website maintained by the Maryland Department of Labor, Licensing, and Regulation that provides information for job candidates and employers, in addition to providing labor market information.³ The county could consider linking the MWE to its website or maintaining its own version. This platform would allow commuters to see job openings in the county and would provide employers with an applicant pool as well as a consolidated area to learn about local economic trends.
- Increase the use of more sophisticated data analytics for business attraction. Similar to the work related to the MWE for employers and commuters, the County could utilize an online platform to show the skills and certifications of job seekers. This information is

² "Business Costs," Charles County Economic Development Department, accessed June 25, 2018, <http://www.meetcharlescounty.com/business-costs/>.

³ "Maryland Workforce Exchange," Maryland Department of Labor, Licensing, and Regulation, accessed June 26, 2018, <https://mwejobs.maryland.gov/vosnet/Default.aspx>.

already included in the MWE and could be added to the “Workforce” page of the Charles County Economic Development Department website to showcase the potential workforce to businesses looking to relocate.⁴

⁴ “Workforce,” Charles County Economic Development Department, accessed June 25, 2018, <http://www.meetcharlescounty.com/workforce/>.

2.0 Introduction

Charles County Economic Development Department (“the Client”) sought a study to understand the workforce of Charles County, focusing on how the county’s population contributes to the workforce in the surrounding areas and how this workforce aligns with the county’s target industries. More specifically, the Client was interested in how Charles County’s skilled workforce could be an asset in attracting these industries to the area.

To achieve the project objective, the Client contracted with the Regional Economic Studies Institute (RESI) of Towson University and the Schaefer Center for Public Policy (“the Project Team”). Based on the research needs of the Client, the Project team developed a three-phase methodology. The first phase of the project consisted of a literature review and analysis of secondary data to provide context on current and historical employment, demographics, and socioeconomic conditions in the county.

The second phase of the project consisted of primary data collection and analysis through a phone survey of Charles County residents who are employed outside of the county. Examination of primary data included summaries and cross tabulations of survey responses to gain additional insight into trends by industry, occupation, educational attainment, age, among other demographic indicators.

The third phase of the project utilized secondary data from the U.S. Census American Community Survey (ACS) to evaluate the industries and occupational groups of out-of-county commuters and to evaluate alignment of survey results with the ACS sample.

This report continues as follows:

- Section 3.0 reviews attributes of Charles County, including resident demographics, dominant industries, and economic development priorities to contextualize the rest of the findings;
- Section 4.0 provides information on the Project Team’s survey methodology;
- Section 5.0 contains the Project Team’s survey analysis, with special attention to residents’:
 - Demographics,
 - Skills and educational attainment,
 - Place of work,
 - Industries and occupations of residents who are employed outside the county;
 - Entrepreneurial aspirations; and
 - Choice to live in Charles County.
- Section 6.0 includes an analysis of American Community Survey data of Charles County residents, focusing on those commuting outside of the county for employment;
- Section 7.0 outlines strategies to encourage industry relocation; and
- Section 8.0 provides concluding remarks and recommendations.

3.0 Literature Review

This section reviews existing literature on Charles County, focusing on three main areas:

- Major industries of the county and surrounding region,
- Demographic and economic trends of the county, and
- Economic development goals of the county's government.

These topics provide an overview of themes pertinent to the study which were used to facilitate survey development, as well as providing context for the findings and results.

3.1 Industries, Employment, and Wages in Charles County

One of the unique features of Charles County's economy is the prevalence of public sector employment; which refers to jobs created at the local, state, and federal levels of government to administer or manage public resources. According to data recently released by the Bureau of Labor Statistics, local, state, and government entities account for the plurality of employment in Charles County, with an estimated 9,715 jobs in 2017.⁵ This employment is concentrated in the Public Administration and Educational Services industries. However, Charles County also boasts significant levels of private sector employment in a variety of major industries such as Retail Trade; Accommodation and Food Services; Health Care and Social Assistance; Construction; Other Services; and Professional, Scientific, and Technical Services.^{6, 7}

⁵ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018, accessed June 18, 2018, <https://data.bls.gov/pdq/SurveyOutputServlet>.

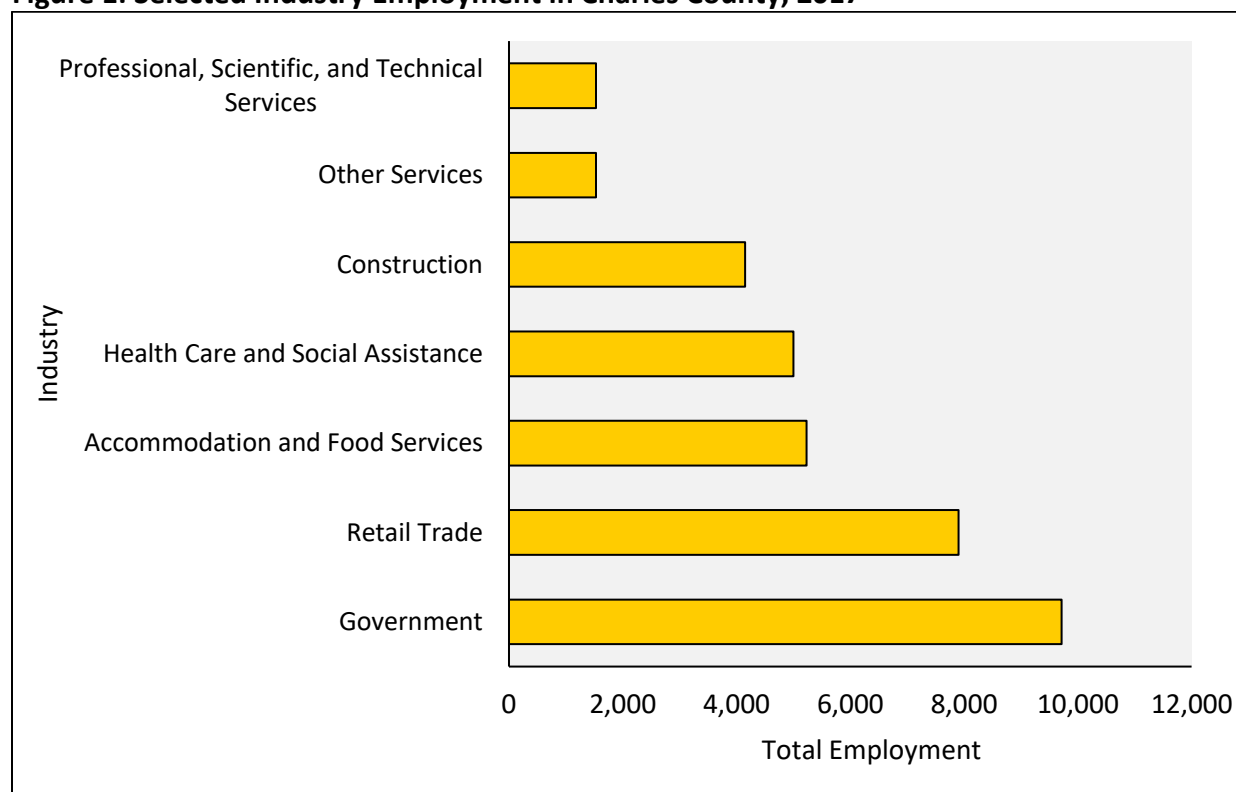
⁶ Ibid.

⁷ Garner Economics LLC, "A Competitive Realities Report for Charles County, Maryland," 83.

Retail Trade is the largest private-sector industry for employment in Charles County, accounting for an estimated 7,900 jobs in 2017.⁸ Two of the six largest private sector industries in Charles County, Healthcare and Social Services and Other Services, experienced employment growth from 2016 to 2017.⁹ Although they are not among the largest industries for employment in Charles County, the Administrative and Waste Services and Management of Companies and Enterprises industries had the largest growth in private sector employment from 2016 to 2017, increasing by 10.5 percent and 12.7 percent respectively.¹⁰

Figure 1 below displays government employment in Charles County along with private-sector employment in the six largest industries.

Figure 1: Selected Industry Employment in Charles County, 2017¹¹



Source: Bureau of Labor Statistics, RESI

Due to its geographic proximity to the nation's capital, the economy of Charles County is often described as dependent on the federal government for jobs and is referred to as a bedroom community for Washington, D.C.¹² In 2017, the U.S. Bureau of Labor Statistics (BLS) estimated

⁸ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics.

⁹ Ibid.

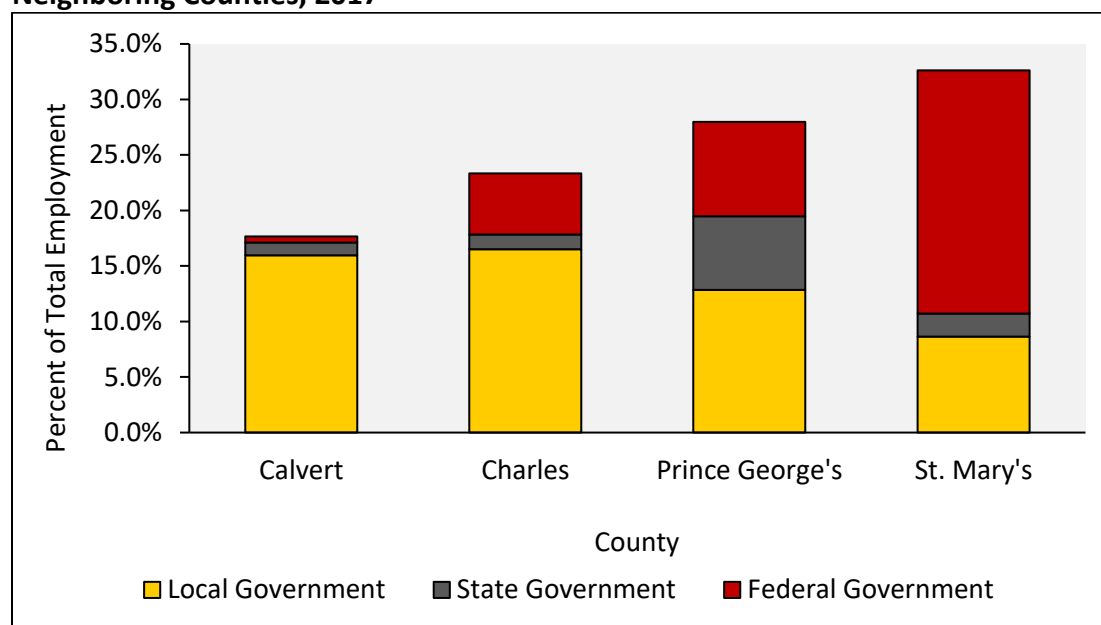
¹⁰ Ibid.

¹¹ Data refers to preliminary estimates released by the Bureau of Labor Statistics, extracted on June 18, 2018.

¹² George Mason University, Center for Regional Analysis, "Targeted Industry Study for Charles County, Maryland," 1-2, accessed June 18, 2018,

that public sector employment across all three levels of government account for 23.3 percent of employment in Charles County.¹³ This includes local government, which accounts for 16.5 percent of total employment, state government employment at 1.3 percent, and federal government employment at 5.5 percent.¹⁴ Comparison of this distribution of public sector employment in Charles County to neighboring counties provides context for assessing Charles County's level of dependency on the public sector in general, and the federal government in particular. Figure 2 compares public-sector employment by level of government in Charles County to neighboring Calvert, Prince George's, and St. Mary's counties.

Figure 2: Public Sector Employment by Level of Government in Charles County and Neighboring Counties, 2017



Source: Bureau of Labor Statistics, RESI

As shown above in Figure 2, Charles County is more dependent on the public sector and specifically federal government employment than Calvert County, where public sector employment accounts for just 17.7 percent of total employment, and federal government jobs making up only 0.6 percent of the total employment in the county. Charles County is also slightly more dependent than Calvert County on state government employment, which accounts for just 1.1 percent of total employment in Calvert County, compared to 1.3 percent in Charles County.¹⁵ However, when compared to neighboring Prince George's and St. Mary's counties, Charles County is less dependent upon public sector jobs and federal government jobs

http://cra.gmu.edu/pdfs/research_reports/other_research_reports/NVBIA_report_2007/Charles_County_Targeted_Industry_Study.pdf.

¹³ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018, accessed June 18, 2018, <https://data.bls.gov/cgi-bin/dsrv>.

¹⁴ Ibid.

¹⁵ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics.

in particular.¹⁶ In both Prince George's and St. Mary's counties, public sector employment accounts for over one quarter of total employment, federal government employment representing 8.5 percent and 21.9 percent of total jobs, respectively.¹⁷ Both of these counties also have higher concentrations of employment in state government than Charles County. Interestingly, of all counties compared in Figure 2, Charles County has the highest percentage of people employed by local government entities, which is likely attributable to large numbers of employment in the educational services industry in Charles County.

Industry and employment comparisons can also be drawn between Charles County and other counties and county equivalents within the Washington, D.C. Metropolitan Statistical Area (MSA), which includes the District of Columbia and 21 surrounding counties which have significant resident populations who commute to D.C for work.¹⁸ The cities and counties that make up the Washington, D.C. MSA are as follows:

- District of Columbia; Calvert, Charles, Frederick, Montgomery, and Prince George's Counties, MD; Arlington, Clarke, Fairfax, Fauquier, Loudoun, Prince William, Spotsylvania, Stafford, and Warren Counties, VA; Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, Manassas Park Cities, VA; and Jefferson County, WV.¹⁹

When compared to other counties in the Washington, D.C. MSA, Charles County exhibits a similar split between public and private sector jobs—this is especially true when accounting for the approximately 3,000 Department of Defense and contractor positions at Naval Support Facility Indian Head.²⁰ At an industry level, there are considerable variations in employment between Charles County and the Washington, D.C. MSA at large. Figure 3 compares employment in selected major private sector industries as a percentage of total private sector employment in Charles County to the larger Washington, D.C. MSA.²¹

¹⁶ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics.

¹⁷ Ibid.

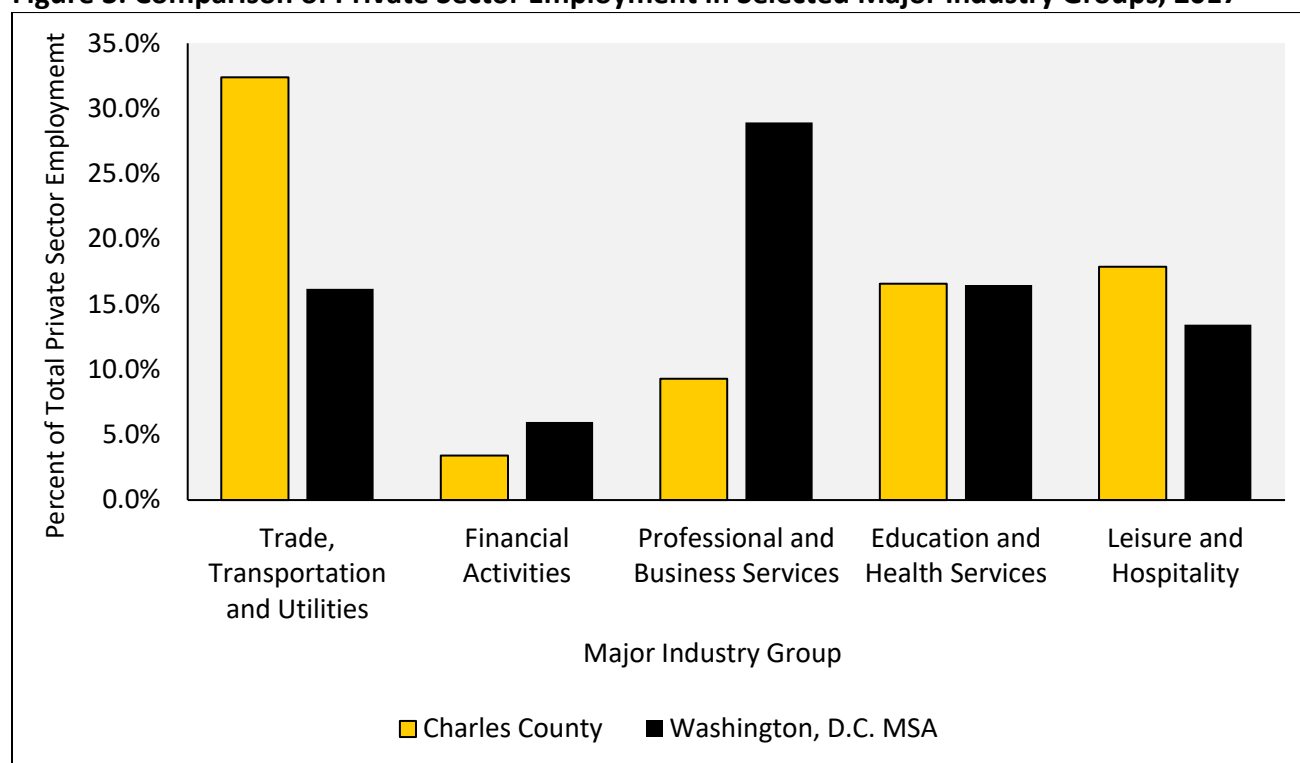
¹⁸ "Metropolitan and Micropolitan, "About," United States Census Bureau, accessed June 18, 2018, <https://www.census.gov/programs-surveys/metro-micro/about.html>.

¹⁹ Core area of District of Columbia and surrounding Virginia, Maryland, and West Virginia counties are delineated by the U.S. Office of Management and Budget (OMB)'s Core Based Statistical Area code 47900.

²⁰ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018.

²¹ This comparison is limited to private sector employment due to limitations in data reported by the Bureau of Labor Statistics for public sector employment by major industry for the Washington, D.C. MSA.

Figure 3: Comparison of Private Sector Employment in Selected Major Industry Groups, 2017



Sources: Bureau of Labor Statistics, RESI

As seen above in Figure 3, there are several significant variations in the concentration of private sector employment in Charles County compared to the larger Washington, D.C. MSA.²² The two most striking differences in private sector employment between the two areas are in the Trade, Transportation, and Utilities industry and the Professional and Business services industry. In Charles County, approximately 32 percent of private sector employment is concentrated in the Trade, Transportation, and Utilities industry compared to just over 16 percent in the larger Washington, D.C. MSA.^{23, 24} This major industry grouping includes Wholesale Trade, Retail Trade, Transportation and Warehousing, and Utilities. It is likely that the prominence of this major industry in private sector employment in Charles County is due to the County's high levels of employment in Retail Trade.²⁵

Figure 3 also shows a large difference between employment in the Professional and Business Services industry in Charles County and the Washington, D.C. MSA. This major industry grouping includes Professional, Scientific and Technical Services; Management of Companies

²² Please note that for this comparison, major industry groupings were used due to limitations in data reporting for industry-specific employment levels for the Washington, D.C. MSA.

²³ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018.

²⁴ Ibid.

²⁵ Ibid.

and Enterprises; and Administrative and Support and Waste Management Services.²⁶ In Charles County, these industries only account for 9.3 percent of public sector employment, compared to almost 29 percent in the Washington, D.C. MSA.²⁷ Charles County also has a lower concentration of private sector employment in the Financial Services industries than the Washington, D.C. MSA.

From the perspective of a business seeking to lower labor costs, Charles County compares favorably to other counties in the surrounding area.²⁸ The average weekly wage for workers in all industries in Charles County was approximately \$881 in 2017.²⁹ These differences in average weekly wages are also present among several key private-sector industries. Figure 4 below displays county comparisons of the average weekly wage per worker for selected industries. The highlighted industries were chosen due to their prominence in the Charles County economy and alignment with the County's focus industries for economic development outlined in the strategic plan.

Figure 4: Average Weekly Wage Comparisons for Selected Industries, 2017³⁰

	All Industries	Information	Healthcare and Social Services	Professional and Scientific Services	Retail Trade
Calvert County	\$1,046	\$1,274	\$973	\$1,172	\$522
Charles County	\$881	\$1,247	\$890	\$1,371	\$545
Prince George's County	\$1,088	\$1,402	\$999	\$1,749	\$624
St. Mary's County	\$1,273	\$1,175	\$993	\$1,728	\$510

Source: Bureau of Labor Statistics

As shown in Figure 4, compared to neighboring Calvert, Prince George's and St. Mary's Counties, Charles County has a substantially lower overall average weekly wage rate. Most notably, the average weekly wage for a worker in Charles County is almost \$400 less than the average weekly wage for a worker in St. Mary's County.³¹ Across selected focus industries, Charles County also has average weekly wage rates that are relatively low compared to neighboring counties, particularly in the Healthcare and Social Services industry.³² While Calvert County has the lowest average weekly wage rate for workers in the Professional, Technical, and Scientific Services industry, Charles County's average weekly wages in this industry are the

²⁶ "Industries by Supersector and NAICs Code," Bureau of Labor Statistics, accessed June 20, 2018, https://www.bls.gov/iag/tgs/iag_index_naics.htm.

²⁷ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018.

²⁸ Garner Economics LLC, "A Competitive Realities Report for Charles County, Maryland," 65.

²⁹ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018.

³⁰ Average weekly wages per worker for all industries refers to both private and public sector, whereas the average weekly wages for selected industries reflect only private sector data.

³¹ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018,

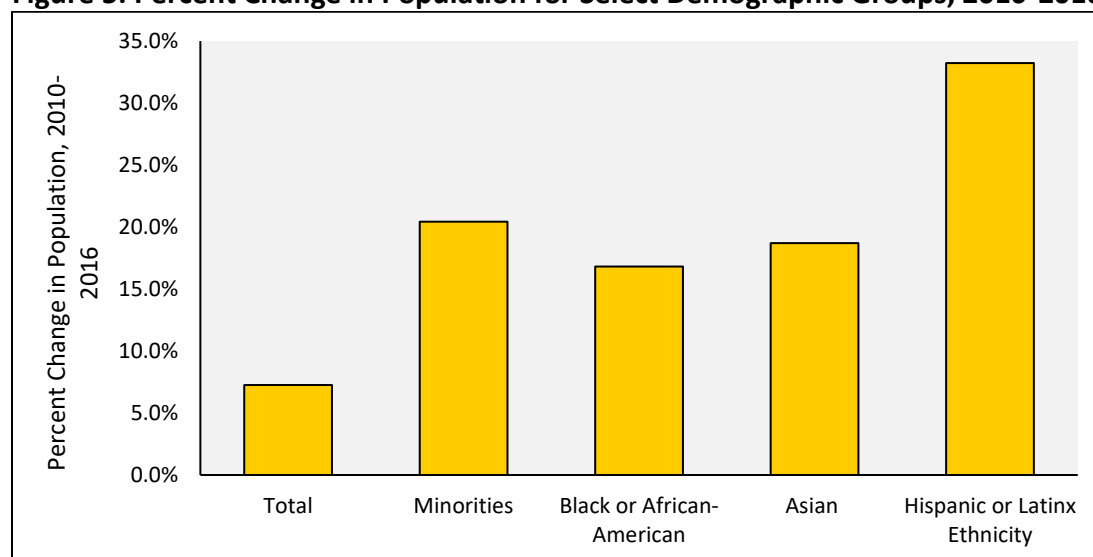
³² Ibid.

second-lowest of the counties selected for comparison, and fall more than \$350 behind those in Prince George's and St. Mary's counties.³³

3.2 Demographic and Economic Trends of Charles County

Demographic analysis of Charles County is also important to understand the characteristics of the County's workforce, and any factors that differentiate it from others. Since 2010, Charles County has added over 10,000 net residents, increasing 7.3 percent through 2016.³⁴ This population growth is primarily attributable to increases in minorities, particularly African-American and Asian populations. Figure 5 below shows the changes in Charles County's population for select demographic groups.

Figure 5: Percent Change in Population for Select Demographic Groups, 2010-2016



Sources: RESI, U.S. Census Bureau

As illustrated above, the African-American and Asian populations in Charles County grew by 16.8 percent and 18.7 percent between 2010 and 2016 respectively, while minorities as a whole grew by 20.4 percent.³⁵ Furthermore, the number of residents in Charles County that are of Hispanic or Latinx ethnicity grew by 33.2 percent during this time.³⁶ A similar trend has been seen in other Maryland counties and the state as a whole during this time period.³⁷

³³ "Quarterly Census of Unemployment and Wages," Bureau of Labor Statistics, 2018.

³⁴ "DP05: ACS Demographic and Housing Estimates: American Community Survey 5-Year Estimates," 2017, U.S. Census Bureau, accessed June 7, 2018, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_DP05&prodType=table.

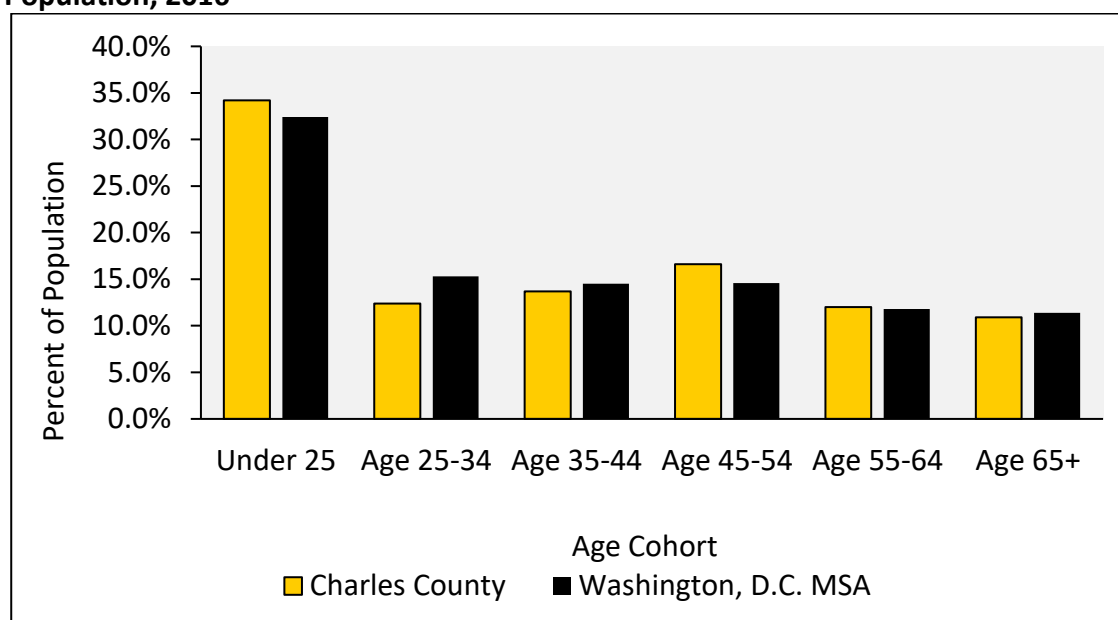
³⁵ "DP05: ACS Demographic and Housing Estimates: American Community Survey 5-Year Estimates," U.S. Census Bureau.

³⁶ Ibid.

³⁷ Ibid.

Next, the age distribution of Charles County's population is reviewed to provide context for the survey analysis in Section 5. Furthermore, higher concentrations of certain age cohorts in a population could be an indication of what career stage the people in the workforce are in. Figure 6 below displays the distribution of the population by age cohort for Charles County and the larger Washington, D.C. MSA.

Figure 6: Charles County vs. Washington, D.C. MSA Age Cohorts as a Percent of the Population, 2016



Sources: RESI, U.S. Census Bureau

Considering the time spent in school and the age at which people begin to enter retirement, prime age workers in the United States are defined as the population between 25 and 54 years of age.³⁸ As displayed in Figure 6, 42.7 percent of Charles County's population falls into this category, compared to 44.4 percent in the larger Washington, D.C. MSA.³⁹ Among this group, Charles County has lower concentration of individuals aged 25 to 44 and a higher concentration of individuals aged 45 to 54. Charles County has a similar percentage of the population aged 55-64 and 65 and over compared to the Washington, D.C. MSA, and a higher concentration of people under the age of 25.⁴⁰

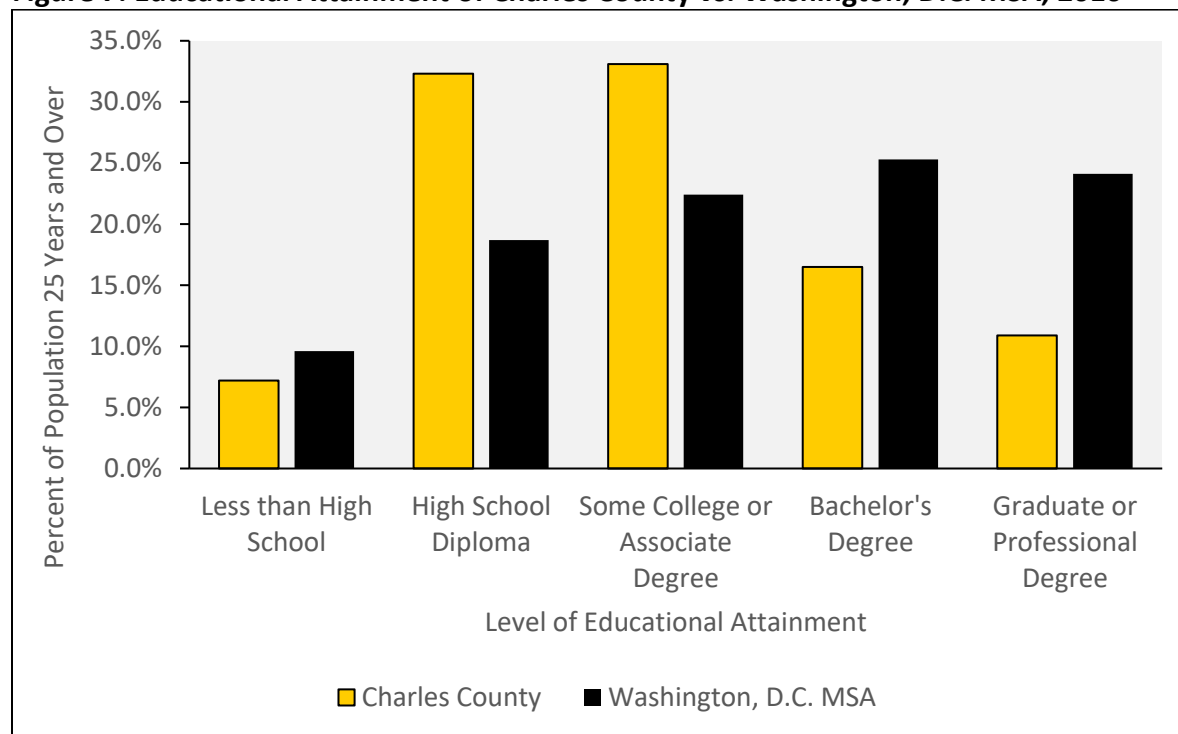
³⁸ "Labor Force Participation: The U.S. and Its Peers," The Federal Reserve Bank of St. Louis, 2015, accessed June 20, 2018, <https://www.stlouisfed.org/on-the-economy/2015/june/labor-force-participation-the-us-and-its-peers>.

³⁹ "S0101: Age and Sex: 2012-2016 American Community Survey 5-Year Estimates," United States Census Bureau, accessed June 19, 2018, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S0101&prodType=table.

⁴⁰ Ibid.

The educational attainment of Charles County residents is illustrated in Figure 7 below. When compared to the Washington, D.C. MSA, Charles County's adult population has lower levels of educational attainment. In Charles County, approximately 32.3 percent of adults aged 25 and over have a high school diploma or equivalency, versus just 18.7 percent of adults in the greater Washington, D.C. MSA.⁴¹ Furthermore, almost 60 percent of adults aged 25 years and over in the Washington, D.C. MSA have a bachelor's degree or higher, whereas only 27.4 percent of adults in Charles County hold the same level of educational attainment.⁴²

Figure 7: Educational Attainment of Charles County vs. Washington, D.C. MSA, 2016



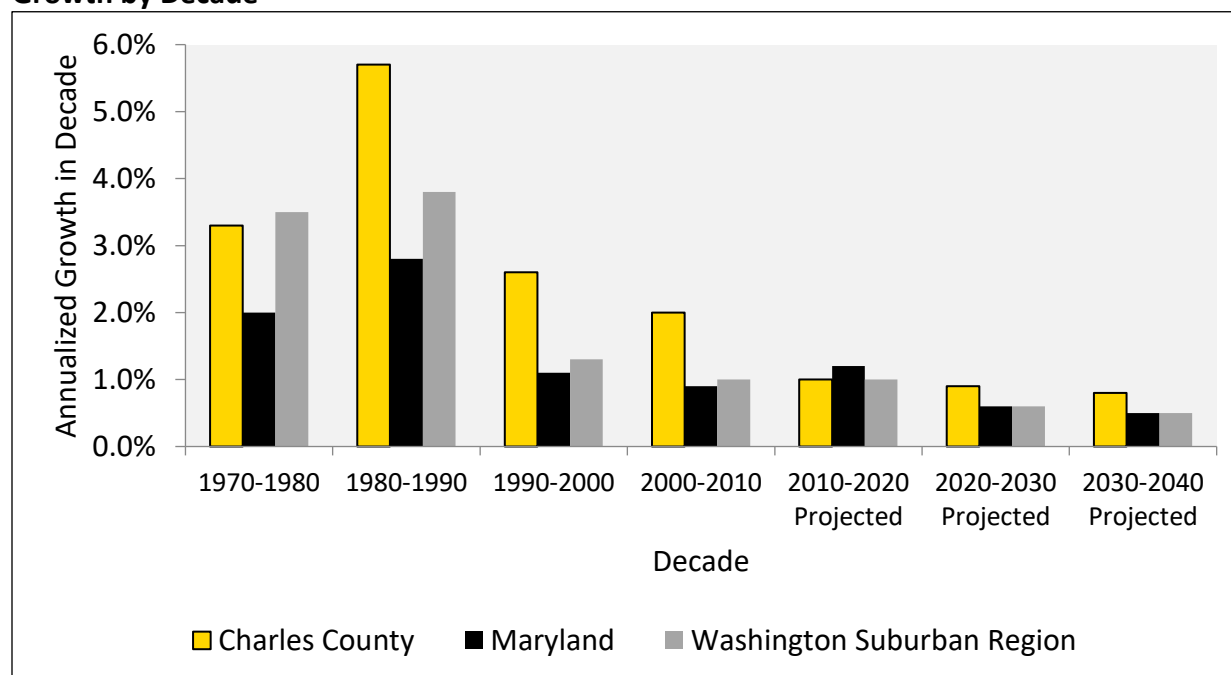
Sources: RESI, U.S. Census Bureau

⁴¹ "S1501: Educational Attainment: 2012-2016 American Community Survey 5-Year Estimates," U.S. Census Bureau, accessed June 19, 2018, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_S1501&prodType=table.

⁴² "S1501: Educational Attainment: 2012-2016 American Community Survey 5-Year Estimates," United States Census Bureau.

In regards to employment and income growth, the trends in Charles County align with those of both the state of Maryland and the Washington, D.C. metro area.⁴³ This is a fairly recent development, as jobs in Charles County grew at a much faster rate than both comparison areas from 1980 to 2010.⁴⁴ After 2010, however, job growth in Charles County was negatively impacted by national macroeconomic trends following the Global Financial Crisis. These national trends affected employment and income, causing a decrease in growth. As shown in Figure 8, this slowdown is projected to continue, however at a much more gradual pace than from 1990 to 2010.⁴⁵ Notably, while growth has slowed, the projected job growth for Charles County exceeds that of the Washington, D.C. MSA between 2020 and 2040.

Figure 8: Charles County, Maryland, and Washington Suburban Region Annualized Job Growth by Decade⁴⁶



Source: Maryland Department of Planning

⁴³ Maryland Department of Planning, "Projections to 2040: Total Jobs by Place of Work by Jurisdiction, Per Capita Personal Income for Maryland's Jurisdictions," 1, accessed June 20, 2018, http://planning.maryland.gov/MSDC/Documents/projection/Jobs/Summary_TotalJobs.pdf.

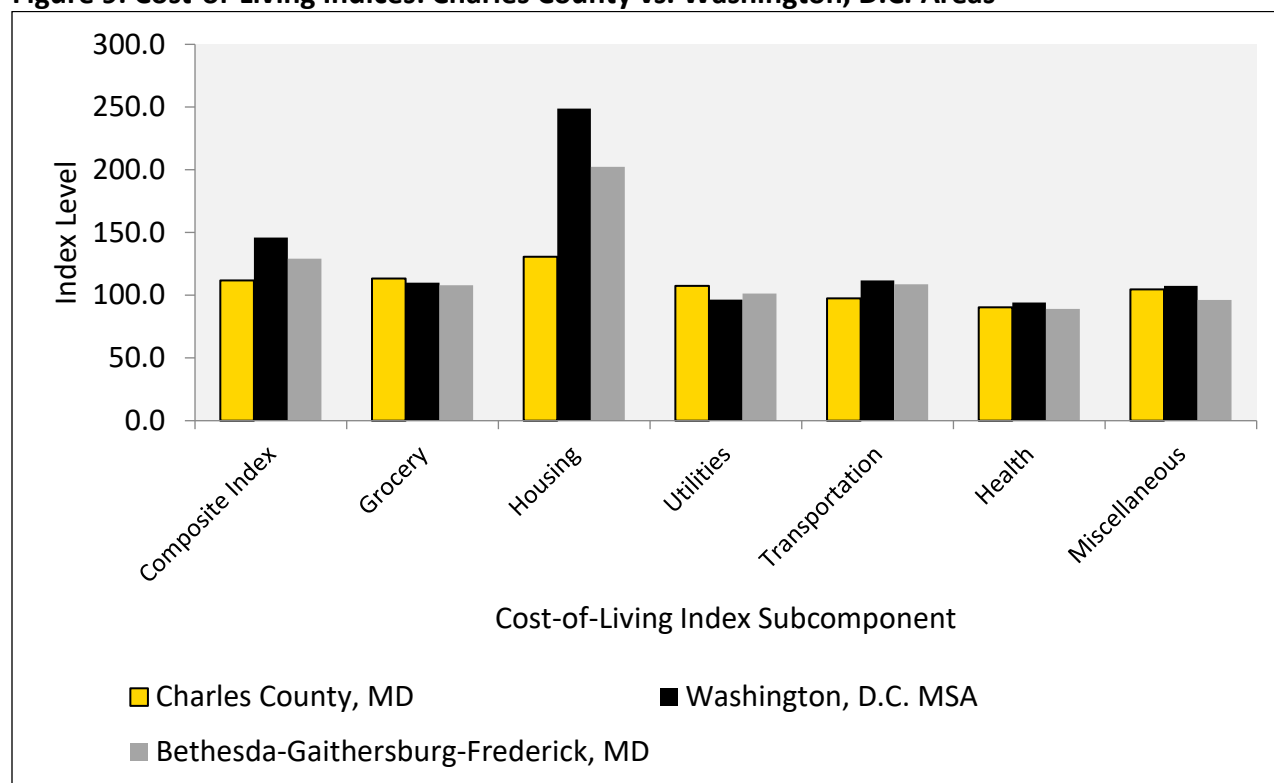
⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ The Washington Suburban Region as defined by the Maryland Department of Planning is the counties of Frederick, Montgomery, and Prince George's.

Charles County stands apart from its neighbors in regards to having a relatively lower cost of living. As shown in Figure 9, Charles County has a lower cost-of-living by index when compared to both the Washington, D.C. metro area and the Bethesda-Gaithersburg-Frederick suburban area.⁴⁷ Housing, a large portion of any household's budget, is especially competitively priced compared to the rest of the Washington, D.C. metro area (which is high on a national basis as well).⁴⁸

Figure 9: Cost-of-Living Indices: Charles County vs. Washington, D.C. Areas



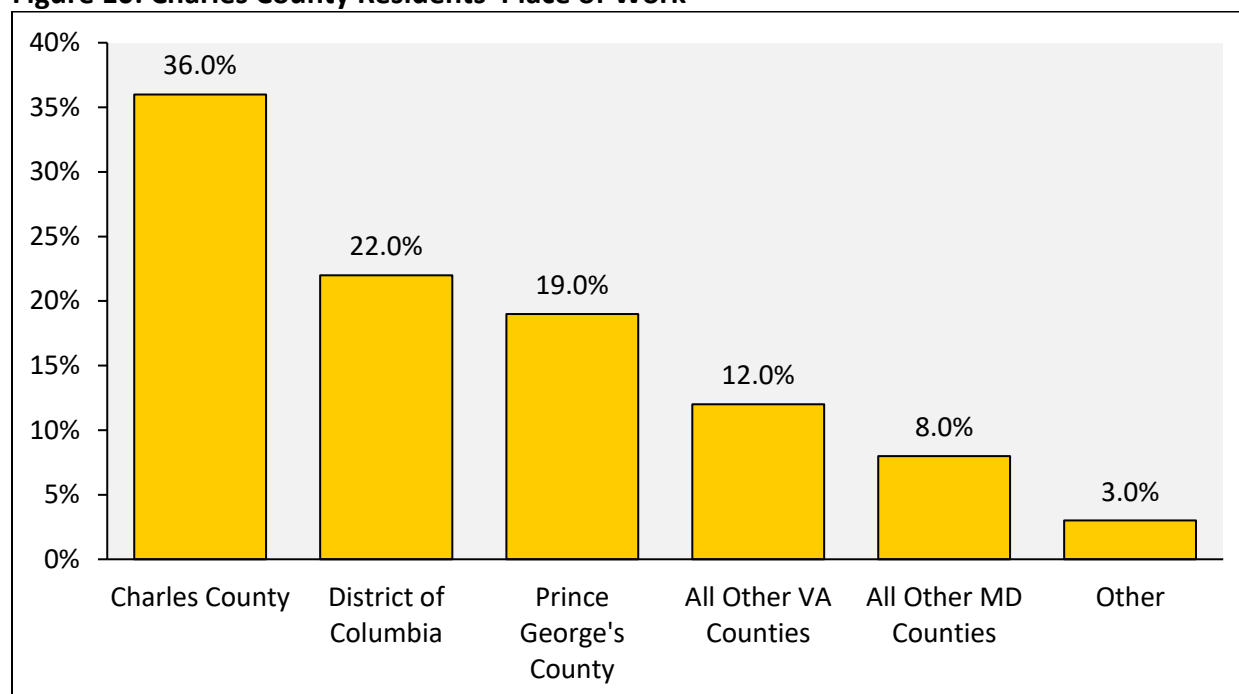
Source: Garner Economics LLC

⁴⁷ Garner Economics LLC, "A Competitive Realities Report for Charles County, Maryland," 48.

⁴⁸ Ibid.

In addition to a relatively low cost-of-living, the work commuting patterns of Charles County are a distinguishing feature—a majority of its residents commute out of the county for work.⁴⁹ Only 36 percent of Charles County residents commute within the county for work, while the remaining 64 percent of residents commute to Washington, D.C.; neighboring Prince George’s County, Maryland; other Maryland counties; or Virginia counties.⁵⁰ The commuting patterns of Charles County residents are displayed in Figure 10 below.

Figure 10: Charles County Residents' Place of Work



Source: Charles County Economic Development Department

The Project Team also considered commuting patterns for residents who leave the county for work. When residents who work in Charles County are excluded, the percentages of residents who out-commute are as follows:

- 34.4 percent out-commute to Washington, D.C.;
- 29.7 percent out-commute to Prince George’s County, MD;
- 18.8 percent out-commute to all other VA counties;
- 12.5 percent out-commute to all other MD counties; and
- 4.7 percent out-commute to some other location.

⁴⁹ Charles County Economic Development Department, “Charles County 2016 Annual Report: Shaping the Economic Future of Charles County,” 12, accessed June 18, 2018, http://www.meetcharlescounty.com/clientuploads/directory/downloads/download_files/Charles-County-2016-Annual-Report_FINAL.pdf.

⁵⁰ Ibid.

3.3 Economic Variation within Charles County

The previous section examined how Charles County varies in terms of demographic and economic characteristics when compared to neighboring areas—however considerable variation in socioeconomic factors and demographic variables also exists within Charles County. According to the Maryland Department of Planning, Charles County has mostly an urban population with roughly 71 percent of its residents living in cities or towns.⁵¹ The remaining 29 percent reside in rural areas within the county.⁵² The urban proportion is the highest in Southern Maryland but comparatively low when compared to other Maryland counties within the Baltimore or Suburban Washington regions.^{53, 54}

The major cities and towns within Charles County have differing levels of population, income, unemployment, poverty, and educational attainment, as seen in Figure 11.⁵⁵

Figure 11: Economic Variables of Select Charles County Cities/Towns

City/Town	Population	Median Household Income	Unemployment Rate	% Below Poverty	% of Age 25-64 Population with a Bachelor's Degree or Higher
Waldorf	71,399	\$84,848	7.1%	8.6%	29.5%
La Plata	8,994	\$95,729	3.4%	11.4%	33.4%
Bryans Road	7,458	\$79,167	7.1%	7.2%	25.8%
Indian Head	3,903	\$71,250	6.9%	7.8%	20.5%
Hughesville	2,206	\$137,333	6.7%	12.5%	31.9%

Source: U.S. Census Bureau

Waldorf is clearly the largest urban center in Charles County although La Plata, which has a much lower unemployment rate, is the seat of County government. Despite having higher rates of college degrees and median household income, both La Plata and Hughesville have higher poverty rates, suggesting greater economic disparity. Bryans Road and Indian Head, which are adjacent to each other and close to Naval Support Facility Indian Head, have both lower rates of

⁵¹ Maryland Department of Planning, "Maryland Urban and Rural Population by Jurisdiction: 2010, 2000, 1990," 1, accessed June 19, 2018, http://planning.maryland.gov/MSDC/Documents/Census/Cen2010/urban_rural/PctUrbanRural_County_region_r2.pdf.

⁵² Ibid.

⁵³ Maryland Department of Planning, "Maryland Urban and Rural Population by Jurisdiction: 2010, 2000, 1990."

⁵⁴ Southern Maryland is defined as Calvert, Charles, and St. Mary's Counties. The Baltimore Region is defined as Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties and Baltimore City. The Washington Suburban region was defined previously.

⁵⁵ U.S. Census Bureau, "American FactFinder: Community Facts, 2015 American Community Survey," tables DP05, S1901, S2301, accessed June 19, 2018, <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>.

college degrees and median household income compared to other major cities and towns within the county.

3.4 Economic Development in Charles County

The economic development goals of Charles County have been outlined in comprehensive plans, reinforced in the County Government's annual reports, and implemented using the recently released five-year strategic plan developed by an external consultant.⁵⁶ In Charles County's 2016 Comprehensive Plan, the County Planning Commission set the following goals:

- Expand the number of jobs in the county paying above-average salaries;
- Strengthen the county's economic base through growth and expansion of existing businesses and industry;
- Diversify the county's economic base through the attraction of new businesses and encouraging start-ups;
- Retain large employers in the county, such as the Naval Support Facility located at Indian Head;
- Enhance the county's infrastructure through a capital improvement program;
- Support tourism development, particularly associated with natural resources, historic and cultural resources, and land- and water-based recreation;
- Promote and support the arts as a contributor to quality of life; and
- Provide affordable broadband coverage to all.^{57,58}

To accomplish the above goals, the five-year strategic plan has set forth three primary strategy recommendations.⁵⁹ The first of these recommendations is to develop assets and initiatives in key areas with the goal of strengthening Charles County infrastructure. Specific action items to achieve this goal include creating sustainable funding sources to improve the county's economic development infrastructure; enhancing county water and wastewater capacity and availability; providing free, public high-speed Internet access; improving gateways into the county, and supporting the Maryland Airport.⁶⁰

Second, the strategic plan proposes the expansion and reorganization of the Charles County Economic Development Department, and encourages collaborations with other economic development entities to present a unified brand.⁶¹ To accomplish these objectives, several staffing and organizational changes are recommended, including the hiring of a business investment and retention ombudsman in the Charles County Administrator's Office and reorganizing the county's Economic Development Department to create an advisory board of

⁵⁶ Garner Economics LLC, "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 2-68.

⁵⁷ Charles County Planning Commission, "Charles County Comprehensive Plan," 7-1, 7-2, July 2016, accessed June 19, 2018, <http://www.charlescountymd.gov/pgm/planning/comprehensive-plan-2016>.

⁵⁸ Ibid.

⁵⁹ Garner Economics LLC. "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 63-66.

⁶⁰ Ibid.

⁶¹ Ibid.

directors.⁶² Furthermore, the strategic plan also recommends the development of realistic and sustainable business incentive policies and establishing regular visits to other cities and counties.⁶³ Ultimately, this focus on economic development is intended to attract new industries and companies that will enhance Charles County's global competitiveness.

Finally, the third recommended strategy is to focus on marketing Charles County as a location for business investment and economic development.⁶⁴ This initiative includes updating the county's digital marketing effort, strengthening relationships with the local business community, continuing to build relationships with site selection consultants and commercial brokers, and prioritizing engagement with target sector c-level executives.⁶⁵ These proposed actions are intended to adapt the current economic development marketing strategies and solidify positive perceptions of the County's economic development leadership.⁶⁶ Together, these three strategies aim to provide pathways for Charles County to achieve its economic development goals.

The department has been and continues to execute the recommendations in this five-year plan and regularly updates the community on the progress status of each recommendation during Quarterly Business Roundtables, the Annual Fall Meeting, and presentations to the County Commissioners.⁶⁷ Several recommendations have been fulfilled, and the department is making progress towards the others.

3.5 Major Infrastructure and Redevelopment Projects

Charles County has committed to numerous infrastructure and redevelopment projects that will contribute to economic development within the county. One of the most significant of these projects is the County's investment in the Waldorf Urban Redevelopment Corridor (WURC). The project intends to turn the Old Washington Road corridor located in downtown Waldorf into a vibrant, urban community that is walking-friendly and transit-oriented.⁶⁸ The project complements a 2010 Maryland Transit Administration (MTA) study recommending mass transit service between Charles County and the Branch Avenue Metro station in Prince George's County, connecting Waldorf and Washington, D.C.^{69,70} Phase I of development of the WURC includes construction of "500 new multifamily dwellings, 130,000 square feet of

⁶² Garner Economics LLC. "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 63-66.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid

⁶⁶ Ibid

⁶⁷ Charles County Economic Development Department, private communications, June 25, 2018.

⁶⁸ "Waldorf Urban Redevelopment Corridor," Charles County Government, accessed June 19, 2018, <http://www.meetcharlescounty.com/wurc>.

⁶⁹ Ibid, 2-3.

⁷⁰ Maryland Transit Administration, "Southern Maryland Rapid Transit Study (SMRT): Draft Alternatives Report 2016 – Executive Summary," 1, accessed June 19, 2018,

http://smrtmaryland.com/images/library/SMRT_Final_Alternatives_Report/SMRT%20Final%20Report%20-%20Executive%20Summary.pdf.

commercial space, a 50,000 square foot office building, a 100-room hotel, and 1,200 structured parking spaces.”⁷¹ Construction of Phase I of the WURC began in early 2017, and is projected to be completed in mid-2019. Further development plans for the WURC include a multi-purpose civic center, public markets, and nature parks.⁷²

Charles County Commissioners have also committed \$30 million for infrastructure investments in the county’s Capital Improvements Program in order to support necessary changes in the water and wastewater capacity in Waldorf for further development of the WURC.⁷³ The five-year strategic plan highlighted the need to extend water and sewer infrastructure to potential industrial sites as these improvements are prerequisites for businesses during their site selection process.⁷⁴ Additional details on the water and sewer projects as well as transportation infrastructure projects can be found in the latest Charles County Annual Report.⁷⁵

Charles County has recently made significant progress on a variety of initiatives that have supported the economic development of the County. One such initiative that has made considerable headway is the Hughesville Village Revitalization Plan, which includes the development of a Regional Hughesville Campus of the College of Southern Maryland, and the plans for the Hughesville Station Business Center to support the growth of industries in the area that would benefit from close proximity to a major educational institution.⁷⁶ The Regional Hughesville Campus recently completed Phase I of the five-phase master plan with the opening of the Center for Trade and Energy Training building.⁷⁷

The County’s 2017 Annual Report also lists several other economic development achievements including:

- Beginning operations at the newly constructed St. Charles Energy Center, a project which has created 700 construction jobs and 24 high-paying permanent jobs, and is expected to generate over \$120 million in revenue for the County over 20 years;
- Adding a Class-A office building for medical use at the White Plains Corporate Center, which is expected to house 200 employees;
- Breaking ground on the construction of a new U.S. Army Reserve Center, expected to create 60-70 new full-time jobs, and will train up to 200 reservists per year once completed;

⁷¹ “Waldorf Urban Redevelopment Corridor,” Charles County Government, accessed June 19, 2018, <http://www.meetcharlescounty.com/wurc>.

⁷² Crossroads Consulting Services, “Market and Economic Analysis for a Proposed New Multi-Purpose Civic Center in Waldorf,” 2-4, 2015, accessed June 19, 2018, http://www.meetcharlescounty.com/clientuploads/MarketEcoAnalysis_Waldorf%20Civic%20Center.pdf.

⁷³ Ibid, 4.

⁷⁴ Garner Economics LLC, “A Proactive Approach to Shaping the Economic Future of Charles County, Maryland,” 44.

⁷⁵ Charles County Government, “Charles County Government Annual Report 2017,” 11-15, accessed June 18, 2018, <http://www.charlescountymd.gov/sites/default/files/AnnualReport2017.pdf>.

⁷⁶ “Hughesville Revitalization,” Charles County Government, accessed June 19, 2018, <http://www.meetcharlescounty.com/hughesville-revitalization/>.

⁷⁷ Ibid.

- Expanding the University of Maryland Charles Regional Medical Center with the introduction of a Population Health Department and Palliative Care Department, and the opening of a brand-new ambulatory Medical Pavilion;
- Announcing a new partnership between the firm Nammo Energetics Indian Head and the Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technical Division, which includes a \$30 million investment in base manufacturing facilities as well as operations in the Town of Indian Head; and
- Opening of a treatment facility by Recovery Centers of America;^{78,79}
- Fiber to and through the Town of Indian Head.

In addition to the projects listed above, the 2017 Annual Report references the ongoing development of the Velocity Center in the Town of Indian Head. This public/private partnership, led by the College of Southern Maryland, will provide a location for educational and innovation activities in conjunction with the Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technical Division, and will spur economic development and revitalization in the Town of Indian Head through facilitating external research collaborations and bringing base-related workforce into facilities outside the gate.⁸⁰

In 2018, Waldorf Station, a transitional redevelopment project in north Waldorf, moved forward with the Commissioners' action to complete Western Parkway in support of this project. The department continues to support the Maryland Airport as an asset through advocacy that has resulted in a planned overlay zone to support commercial activity in and around that facility as well as preservation of the county-owned 50-acre tract adjacent to the airport for future commercial development.

The following section provides an overview of the survey methodology utilized to obtain additional information on Charles County residents commuting outside of the county for employment. Additional details for the methodology of both Section 5 and Section 6 can be found in Appendix A.

4.0 Survey Methodology

To implement the survey, the Project Team first obtained a random, dual-frame sample of phone numbers in Charles County from Survey Sampling, Inc. The sampling method allowed for coverage of approximately 80 percent of cell phones in Charles County by drawing on the billing address for actively used cell phones, instead of phones purchased within the county or telephone numbers assigned in the county. Landline phone numbers were included in the

⁷⁸ Charles County Government, "Charles County Government Annual Report 2017," 17-31.

⁷⁹ Recovery Treatment Centers of America, "Locations—Waldorf, Maryland," accessed June 25, 2018, <https://recoverycentersofamerica.com/locations/waldorf-maryland/>.

⁸⁰ Charles County Economic Development Department, "Town of Indian Head: Innovation Center/Mixed Use Development Implementation Strategy," 1-2, accessed June 18, 2018, <http://www.meetcharlescounty.com/clientuploads/Indian%20Head%20Revitalization%20Strategy.pdf>.

sample, but research has shown that an increasing number of households are phasing out their landlines and relying solely on cell phones for telephone access.⁸¹

After the survey questions were finalized, a pre-test of the survey was performed to ensure that the survey could be conducted within 10 minutes and would be generally understood as intended by potential respondents.

The Project Team conducted the survey by calling during daytime, evening, and weekend hours to cover a variety of workers and professions. Up to four attempts were made with each number to establish contact with a potential respondent. Respondents were presented questions as open-ended, with answers then being categorized by the survey administrator into pre-defined categories if applicable.

Over 550 completed responses were obtained over the sampling period between September 2017 and May 2018. Respondents were only able to complete the full survey if they answered that they were employed outside of Charles County for pay at any job.

5.0 Survey Analysis

Using data obtained through the survey analysis, RESI analyzed responses of Charles County residents who commute outside of the county for employment. The majority of survey respondents were concentrated in Waldorf, specifically within the zip codes of 20601, 20602, and 20603, which comprised 57.1 percent of the sample. As will be discussed throughout this section, because the survey sample deviated somewhat from the county population as a whole (according to U.S. Census data), some information gleaned from the survey sample may not reflect all residents of the county.

The following section reviews these findings including demographics, reasons for living in the county, skills and education, place of employment, and major industries and occupational groups of employment.

⁸¹ Stephen Blumberg and Julian Luke, "Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July –December 2017," National Center for Health Statistics (June 2018): 1, accessed June 25, 2018, <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201806.pdf>.

5.1 Demographics

In the survey sample, individuals identifying as black or African American were highly represented, comprising approximately 50.3 percent of respondents. This was roughly 15 percentage points higher than white respondents who represented the second-largest group, as shown below in Figure 12. This is an overrepresentation of black or African-American respondents compared to data available in the 2016 American Community Survey, which estimates that white and black residents have approximately equal population in Charles County.⁸²

Figure 12: Race of Survey Respondents

Race	Frequency	Percent
Black or African American	280	50.3%
White	195	35.0%
Other	29	5.2%
Prefer not to respond	29	5.2%
Asian/Pacific Islander	14	2.5%
Native American or American Indian	10	1.8%
Total	557	100.0%

Sources: RESI, Schaefer Center for Public Policy

More women than men responded to the survey, with 52 percent of respondents identifying themselves as female versus 47 percent identifying as male. This is roughly in line with the estimates of gender in the 2016 ACS, which found a slight advantage for women in the overall Charles County population.⁸³

Figure 13: Gender of Survey Respondents

Gender	Frequency	Percent
Female	291	52.2%
Male	263	47.1%
Prefer not to respond	4	0.7%
Total	558	100.0%

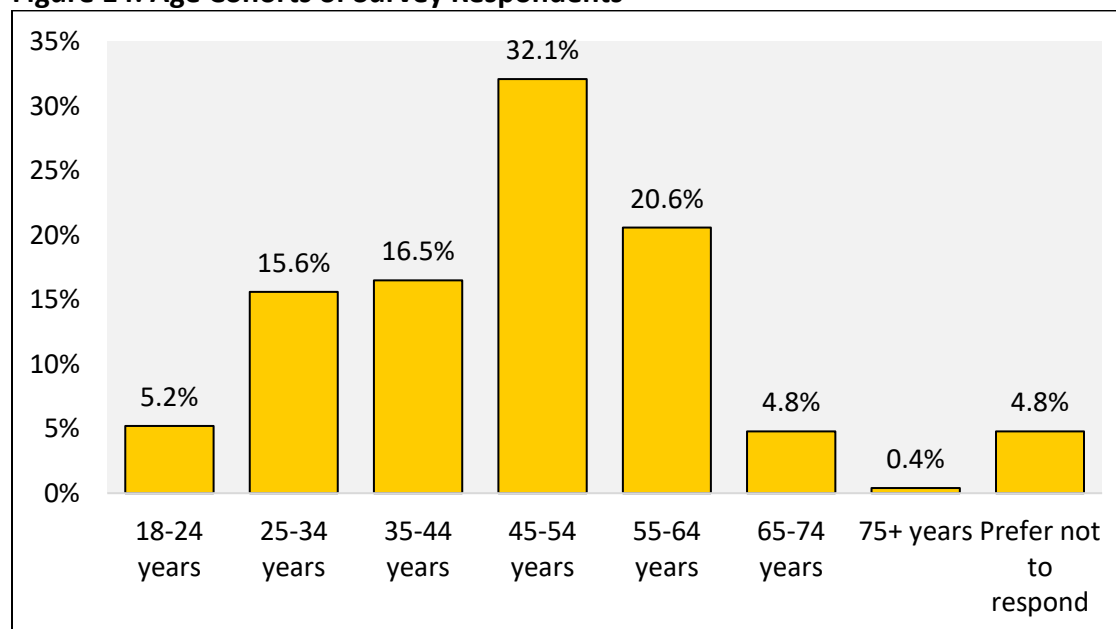
Sources: RESI, Schaefer Center for Public Policy

⁸² U.S. Census Bureau, American Factfinder, “2016 American Community Survey 1-Year Supplemental Estimates,” K200201, accessed May 10, 2018, <https://www.census.gov/acs/www/data/data-tables-and-tools/supplemental-tables/>.

⁸³ U.S. Census Bureau, American Factfinder, “2016 American Community Survey 1-Year Supplemental Estimates,” K200101, accessed May 10, 2018, <https://www.census.gov/acs/www/data/data-tables-and-tools/supplemental-tables/>.

In addition to race and gender, age distribution of the Charles County residents surveyed was also evaluated, with findings shown in Figure 14. As illustrated below, the plurality of respondents commuting outside of the county fell within the age range of 45 to 54 years old, at 32.1 percent. The second-largest group was 55 to 64 years old (20.6 percent), followed by 35- to 44-year-olds with 16.5 percent.

Figure 14: Age Cohorts of Survey Respondents



Sources: RESI, Schaefer Center for Public Policy

In total, over half of respondents were between the age of 45 and 64 years old, which does not align with the proportions in Charles County's population. Workers ages 45-64 are especially overrepresented in the survey sample. ACS estimates indicate that the age cohort between 55 and 64 years represents between 12 and 13 percent of the population, while this cohort was 20.6 percent of survey respondents. For the cohort ages 45-54, which represents 32.1 percent of respondents, ACS data indicate that this cohort represents roughly 17 percent of Charles County's population. This could potentially bias the results towards workers more established in their careers.

5.2 Skills and Education

In Section 3, educational attainment of all Charles County residents was reviewed, showing that approximately 17.2 percent of residents hold a bachelor's degree, while 10.5 percent hold a graduate or professional degree. Figure 15 below illustrates the educational attainment of survey respondents who commute outside of the county for employment.

Figure 15: Education Level of Survey Respondents

Education Level	Frequency	Percent
Professional/doctorate degree	21	3.8%
Master's degree	96	17.2%
Bachelor's degree	124	22.2%
Associate degree or trade/technical	94	16.9%
Some college credit, no degree	102	18.3%
High school graduate or equivalent	104	18.6%
Some schooling, no high school diploma	9	1.6%
Prefer not to respond	8	1.4%
Total	558	100.0%

Sources: RESI, Schaefer Center for Public Policy

As detailed above, survey respondents showed a greater concentration of having a bachelor's degree or higher compared to all Charles County residents (43.2 percent vs. 27.7 percent, respectively). This is also above the state of Maryland's rate of 38.4 percent of residents holding a bachelor's degree or higher.⁸⁴ This result is not surprising, given that the industries and occupation survey respondents commute for generally require higher levels of education. Industries and occupations are discussed further in Section 5.5. For those holding an associate degree or who have completed some college, the distribution between all residents and the survey respondents aligned more closely, with 34.0 percent of all residents versus 35.2 percent in the sample cohort.

⁸⁴ "QuickFacts Maryland," U.S. Census Bureau, accessed May 20, 2018, <https://www.census.gov/quickfacts/MD>.

In addition to educational attainment, certifications and licenses of survey respondents was also assessed. Approximately half of respondents stated that they possessed some sort of license or certification, with these credential types illustrated in Figure 16 below.

Figure 16: Professional Licenses and Certifications Held by Survey Respondents

Type of License	Frequency	Percent
Other	56	20.9%
Skilled Trades	48	17.9%
Medical	31	11.6%
Commercial Driver's License	28	10.4%
Business	22	8.2%
Information Technology	18	6.7%
Project Management	18	6.7%
Teaching	18	6.7%
Legal	13	4.9%
Computer	7	2.6%
Real Estate	6	2.2%
Social Worker	2	0.7%
Sales	1	0.4%
Total	268	100.0%

Sources: RESI, Schaefer Center for Public Policy

Of all certifications and licenses, the largest response group consisted of commuters in skilled trades. Respondents who indicated that they had a license or certification in skilled trades were not asked to specify the type of skilled trade. This was followed by respondents with licenses to work in medical professions, which in addition to doctors included physical therapists, mental health therapists, and nurses. Commercial driver's licenses were the third most common type of license.

More than 20 percent of respondents with a license did not fall into one of the defined categories. When asked for further information regarding these licenses, some respondents indicated that they had some variety of security clearance or law enforcement license—roughly 17.8 percent of respondents who indicated that they had some “other” license or certification noted that they had a security or top-secret clearance. Other responses were generally either unique to that respondent or failed to specify the type of license.

5.3 Place of Work

As noted in the literature review, the majority of Charles County residents, approximately 64 percent, commute outside of the county for work.⁸⁵ Figure 17 below illustrates the location of employment for survey respondents, who all travel outside of Charles County for work. Please note that respondents were allowed to select multiple responses, so totals will not sum to 100 percent.

Figure 17: Commuter Place of Work

Place of Work	Frequency	Percent
Washington, DC	211	37.8%
Prince George's County	133	23.8%
Northern Virginia	101	18.1%
Other area	80	14.3%
St. Mary's County	49	8.8%
Other Maryland County	45	8.1%
Anne Arundel County	35	6.3%
Calvert County	29	5.2%
King George County area	6	1.1%
All work is inside Charles County, though employer is outside Charles County	23	4.1%
Refused to answer	5	0.9%
Total responses	689	--
Total respondents	558	--

Sources: RESI, Schaefer Center for Public Policy

As seen above, survey respondents were most likely to commute to Washington, DC, with 37.8 percent of respondents indicating that they worked in the nation's capital. Prince George's County was the next most common commute destination, with 23.8 percent of respondents indicating that they worked in Prince George's County. Of note, 86 respondents indicated that they worked in multiple places outside of Charles County. Additionally, 28 respondents either indicated that, though their employer was outside Charles County, all of their work was in Charles County, or did not indicate where they worked outside of Charles County.

As shown above, 37.8 percent of Charles County survey respondents travel to Washington, D.C.—the largest group of any county or area in the survey. This is roughly in line with the statistic seen in the text following Figure 10, once the residents are removed who work within Charles County. Another significant destination in the survey is Northern Virginia, which comprises 18.1 percent of workers commuting from Charles County in the survey, and 18.8 percent of out-commuters in the literature review. Charles County's other neighbor, St. Mary's County, only attracts 8.8 percent of commuters leaving the county.

⁸⁵ Charles County Economic Development Department, "Charles County 2016 Annual Report: Shaping the Economic Future of Charles County," 12.

In addition to location of employment, the survey questions sought to categorize why residents commuting outside of Charles County chose this option over local employment.

Figure 18 below summarizes responses to this question, with the plurality of respondents (47.5 percent) citing salary and benefit opportunities available outside the county.

Figure 18: Reason to Work Outside of Charles County

Response	Frequency	Percent
Salary and benefits	265	47.5%
Employment opportunities	176	31.5%
Career advancement	31	5.6%
Diversity of job market	24	4.3%
Other	23	4.1%
Working in a metropolitan area	11	2.0%
Flexibility of hours	8	1.4%
Short commute	8	1.4%
Networking opportunities	6	1.1%
Option to telecommute or work from home.	3	0.5%
Refused	2	0.4%
Diversity	1	0.2%
Total	558	100.0%

Sources: RESI, Schaefer Center for Public Policy

The second-highest reason reported for commuting outside of the county for work was employment opportunities, with 31.5 percent of respondents, though the specific reason for this response varied. Some out-of-county commuters stated that there was no work in Charles County, or no work specifically in their field. A number of these respondents also specifically mentioned working in the federal government. However, many others stated that were employed in their job prior to moving into Charles County.

Although the same two responses remained in the top two across all age groups, there were smaller differences. RESI observed that respondents in the 35 to 44 year age range were more likely to respond with salary and benefits and less likely to respond with employment opportunities. More respondents in the 25-to-34 years cohort listed career advancement, which was accompanied by a reduction in the number who cited salary and benefits as a driving motivation for working outside of the county.

The reasons to work outside of Charles County also showed variation based on where someone was traveling to work. When compared to the respondent pool as a whole, commuters to Washington, D.C. were more likely to state that they were traveling for salary and benefits, while commuters to Prince George's County were more likely to reference employment opportunities.

5.4 Industries and Occupational Groups of Charles County Commuters

To gain understanding of the industries and occupations that Charles County residents commute to other areas for employment, survey responses were classified into two-digit major North American Industry Classification System (NAICS) codes. Results from survey respondents are detailed in Figure 19 below. A further breakdown of survey data appears in Appendices C and D.

Figure 19: Commuter Industries of Employment

Industry	Frequency	Percent
Public Administration	185	39.5%
Healthcare and Social Assistance	42	9.0%
Professional, Scientific, and Technical Services	40	8.5%
Construction	28	6.0%
Educational Services	27	5.8%
Transportation and Warehousing	24	5.1%
Other Services (Except Public Administration)	17	3.6%
Administrative and Support and Waste Management and Remediation Services	16	3.4%
Retail Trade	15	3.2%
Information	13	2.8%
Finance and Insurance	12	2.6%
Wholesale Trade	11	2.4%
Accommodation and Food Services	9	1.9%
Manufacturing	9	1.9%
Real Estate and Rental and Leasing	7	1.5%
Arts, Entertainment, and Recreation	5	1.1%
Utilities	5	1.1%
Agriculture, Forestry, Fishing, and Hunting	1	0.2%
Federal Contracting	1	0.2%
Mining, Quarrying, and Oil and Gas Extraction	1	0.2%
Total	468	100.0%

Sources: RESI, Schaefer Center for Public Policy

As illustrated above, Charles County residents who commute out of the county for work are far more likely to be working in a government job than in any other industry. Nearly 40 percent of survey respondents who provided information on their employer work in the Public Administration industry, far more than in any other major industry, and more than four times as many commuters than in the next-largest industry of Healthcare and Social Assistance. Unsurprisingly, commuters who work in Public Administration are more likely than other industries to commute to Washington, D.C., with nearly half of respondents in this industry reporting employment in this location. This is significantly higher than the overall rate of 33.1 percent of survey respondents traveling to Washington, D.C. for work.

Outside of employment in Public Administration, the next-largest group of Charles County commuters who provided employer information reported working in Healthcare and Social Assistance, at 9.0 percent. Commuters in this industry were more likely to commute to Prince George's County than other industries. The Professional, Scientific, and Technical Services industry followed closely as the third-highest industry of employment with 8.5 percent of respondents. Commuters in this industry were nearly twice more likely to travel to Northern Virginia for employment than the survey group as a whole.

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RESI also considered respondents' occupations, using the Standard Occupational Classifications (SOCs) system. The major occupational groups of Charles County commuters are slightly less concentrated than the industries of the same cohort of commuters. Figure 20 below details the distribution of two-digit occupational groups.

Figure 20: Commuter Occupational Groups

Occupational Group	Frequency	Percent
Management Occupations	102	18.3%
Office and Administrative Support Occupations	67	12.0%
Business and Financial Operations Occupations	42	7.5%
Architecture and Engineering Occupations	32	5.7%
Sales and Related Occupations	30	5.4%
Protective Service Occupations	28	5.0%
Transportation and Material Moving Occupations	28	5.0%
Education, Training, and Library Occupations	26	4.7%
Refused	26	4.7%
Unknown	24	4.3%
Computer and Mathematical Occupations	21	3.8%
Healthcare Practitioners and Technical Occupations	21	3.8%
Construction and Extraction Occupations	20	3.6%
Installation, Maintenance, and Repair Occupations	18	3.2%
Legal Occupations	13	2.3%
Production Occupations	12	2.2%
Healthcare Support Occupations	11	2.0%
Building and Grounds Cleaning and Maintenance Occupations	8	1.4%
Community and Social Service Occupations	8	1.4%
Food Preparation and Serving Related Occupations	6	1.1%
Arts, Design, Entertainment, Sports, and Media Occupations	5	0.9%
Personal Care and Service Occupations	5	0.9%
Life, Physical, and Social Science Occupations	4	0.7%
Farming, Fishing, and Forestry Occupations	2	0.4%
Total	559	100%

Sources: RESI, Schaefer Center for Public Policy

Figure 20 shows that the most common occupational group was Management occupations, with approximately 18.3 percent of respondents. The second most-common occupational group was Office and Administrative Support occupations, at 12.0 percent, followed by Business and Financial Operations occupations which comprised 7.5 percent of responses. Interestingly, the top two occupational groups of employment cited by survey respondents vary significantly in annual wages. While Management occupations have an average annual wage of \$119,910, Office and Administrative Support occupations have a mean annual wage of

\$37,950.⁸⁶ Furthermore, survey respondents across all household income levels indicated that employment opportunities and salary and benefits are the two most common reasons for working outside of Charles County.

Within the Management and Office and Administrative occupational groups, respondents were slightly more likely than the overall survey group to say that they worked outside of Charles County for salary and benefits, and slightly less likely to say that they left for employment opportunities. In Business and Financial occupations, the opposite was true, with respondents citing employment opportunities more often than people in other occupations.

Although Legal occupations was a relatively small group within the survey, more than 80 percent of respondents in this group reported commuting to Washington, D.C. for employment. Other occupational groups with at least 40 percent of commuters traveling to Washington, D.C. included Business and Financial Operations, Architecture and Engineering, and Computer and Mathematical occupations.

Among the top-two occupational groups of survey respondents, commuters in Management occupations reported being slightly more likely to travel to Northern Virginia, while Office and Administrative commuters were less likely to commute to this area. Despite these small differences, these groups generally matched the overall survey group in the location of their jobs.

Several occupations were more frequently cited within the largest industries. More than 50 percent of Office and Administrative occupations reported working within Public Administration, along with more than 60 percent of both Business and Financial occupations and Computer and Mathematical occupations. Unsurprisingly, Healthcare occupations aligned with the Healthcare and Social Assistance industry. Every respondent in a Healthcare Support occupation reported working in that industry, along with more than 60 percent of respondents in Healthcare Practitioners and Technical occupations.

⁸⁶ "May 2017 National Occupational Employment and Wage Estimates," U.S. Bureau of Labor Statistics, accessed May 20, 2018, https://www.bls.gov/oes/current/oes_nat.htm.

5.5 Entrepreneurship Amongst Commuters

Given the strategic plan's emphasis on supporting entrepreneurship within Charles County, the Project Team sought to understand the entrepreneurial inclination of out-commuting residents. Commuters were also asked about whether they had considered starting a business in Charles County. In general, most commuters, or 73.9 percent, had not, while 23.9 percent had (please see Appendix C for more information).

For more detail on the respondents who indicated that they had considered starting their own business, the Project Team considered these individuals' industries of employment. Given the large number of industries and the relatively small sample size, the Project Team chose to focus on only industries that had at least 20 responses of *Yes* or *No* to the entrepreneurship question. Information regarding interest in entrepreneurship by industry of employment is presented in Figure 21.

Figure 21: Percent of Charles County Commuting Residents who have Considered Starting their Own Business, by Industry of Employment

Industry	Percent
Construction	8.7%
Educational Services	44.0%
Healthcare and Social Assistance	16.7%
Professional, Scientific, and Technical Services	25.6%
Public Administration	25.2%
Total, All Industries	27.8%

Sources: RESI, Schaefer Center for Public Policy

As seen in Figure 21, 27.8 percent of residents who commute out of the county and provided information on both their industry of employment and entrepreneurship ideas indicated that they had considered starting their own business in Charles County. Only five industries—Construction; Educational Services; Healthcare and Social Assistance; Professional, Scientific, and Technical Services; and Public Administration—had at least 20 respondents. Of these five industries, out-commuting residents in Educational Services, at 44.0 percent, were most likely to have considered starting their own business.

5.6 Living in Charles County

Survey respondents were asked to indicate why they choose to live in Charles County, regardless of whether or not they commute out of the county. Figure 22 contains information for residents who both live and work in Charles County as well as residents who work outside of Charles County but choose to live in Charles County.

Figure 22: Reasons for Living in Charles County Regardless of Work Location

Response	Frequency	Percent
Been here all my life / or since childhood	232	27.2%
Affordable to live here/ Cost of living	207	24.2%
Other (Specify Reason)	123	14.4%
Sense of community/place	95	11.1%
Raising family	88	10.3%
Education system	59	6.9%
Close to major cities / Proximity	42	4.9%
Retirement	4	0.5%
Recreational activities	2	0.2%
Refused	2	0.2%
Total	854	100.0%

Sources: RESI, Schaefer Center for Public Policy

As detailed above, the top response was that the resident had lived in Charles County for a significant period of time (27.2 percent), followed by the affordable cost of living (24.2 percent).

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Figure 23 below shows reasons for living in Charles County from residents who both live and work in Charles County. For comparison, Figure 24 details why residents commuting outside of the county live in Charles County.

Figure 23: Reasons for Living in Charles County for Residents whose Employer is NOT Outside Charles County

Reason	Frequency	Percent
Been here all my life / or since childhood.	96	32.54%
Other (Specify Reason)	61	20.68%
Affordable to live here/ Cost of living	51	17.29%
Raising family	39	13.22%
Sense of community/place	27	9.15%
Education system	11	3.73%
Close to major cities / Proximity	6	2.03%
Refused	2	0.68%
Recreational activities	1	0.34%
Retirement	1	0.34%
Total	295	100.00%

Sources: RESI, Schaefer Center for Public Policy

Figure 24: Reasons for Living in Charles County for Residents who Commute Outside of Charles County

Response	Frequency	Percent
Affordable to live here/ Cost of living	156	27.9%
Been here all my life / or since childhood.	136	24.3%
Sense of community/place	68	12.2%
Other (Specify Reason)	62	11.1%
Raising family	49	8.8%
Education system	48	8.6%
Close to major cities / Proximity	36	6.4%
Retirement	3	0.5%
Recreational activities	1	0.2%
Total	559	100.0%

Sources: RESI, Schaefer Center for Public Policy

While the majority of resident respondents choose to live in Charles County for its affordability or because they have lived here since childhood whether or not they commute outside the county for work, it is interesting to note that these two categories switch order depending on the respondent sample. That is, workers who commute outside of Charles County are more likely to live in the county because it is affordable, whereas residents who remain in the county for work, and the respondent pool as a whole, is more likely to live in Charles County because they grew up in the county. Sense of community or place was important to both respondent

groups as well. Additionally, please note that the “other” responses were numerous. In some cases, the Project Team could re-categorize the responses into existing categories, but many remained “other”—for more information, please see Appendix D.

The Project Team analyzed respondents’ preferences to understand ways to market the county’s amenities differently. Respondents employed in management and finance occupations were twice as likely to indicate they valued the county’s education system. Additionally, married survey respondents — likely those with families — were more likely to value the education system in Charles County as compared to those found in other areas. Charles County’s education system was valued more highly by respondents who earned over \$100,000 a year than any other income group.

Additionally, the Project Team found that government workers and workers employed in office and administration were more likely to reply that the county’s affordability led them to live in Charles County. Additionally, workers employed by the government were more likely to reply that they were lifelong residents of Charles County.

The Project Team also examined why telecommuters choose to live in Charles County instead of another county in Maryland or neighboring state. Telecommuters were less likely to be lifelong residents of the county and were more likely to care about the education system in the county. Residents of Charles County under the age of 35 were twice as likely as middle-aged or older residents to have lived in Charles County since childhood. Younger residents placed less of an emphasis on Charles County’s affordability, the education system, or the general sense of belonging in the county. The lower emphasis on the county’s affordability is interesting, given that young survey respondents were nearly three times as likely to hold a low-paying job as respondents over the age of 35.

Residents of Charles County tend to emphasize the affordability of the county as they age. Workers between the ages of 35 and 55 were more likely than young workers to value affordability, and workers over the age of 55 were the most likely to value affordability, even though older workers were much less likely to hold lower-paying jobs than young workers. This indicates that young commuters from Charles County may implicitly value the county’s affordability.

In general, survey respondents indicated that quality-of-life measures were important for their decision to live in Charles County. Thus, as the county works to attract new businesses, the county can further market itself as an affordable location where workers actively choose to live.

5.7 Key Findings of the Charles County Commuter Survey

The survey results reveal several interesting points about Charles County residents who commute outside of the county for work. Information gleaned from the survey supports the targets of the strategic plan and provides further support for the plan’s goals.

Demographically, the survey respondents were disproportionately Black or African-American and more likely to be over the age of 45 when compared to the Charles County resident population as a whole. In addition, the survey results notably suggest that residents of Charles County that are employed outside the county are more highly educated than the total working-age population in Charles County. This trend from the survey data further confirms that employment opportunities within the county are unmatched to the qualifications of its resident workforce, as is noted in the strategic plan. The strategic plan is focused on creating more employment opportunities in the county, and understanding the qualifications of the commuting workforce, many of whom hold specialized skillsets and institutional knowledge of public agencies, can inform policy in support of strategic plan recommendations.

Across all survey respondents, there was a reasonable degree of consensus on reasons for living in Charles County and reasons for working outside of the county. In both cases, over 50 percent of respondents indicated one of two defined responses. Approximately 52 percent of respondents who commute out of the county for work indicate affordable costs of living or that they have lived in the county their whole lives at their primary reason for residing in Charles County. This percentage remains constant when workers who work in Charles County are also considered. Meanwhile, almost 80 percent of out-commuting respondents cited salaries and benefits or employment opportunities as the primary reason for leaving Charles County for work. These statistics demonstrate that Charles County is an attractive place to live and that potential future employers in the county would have access to employees with strong ties to the area.

The survey analysis provides additional information that bolsters the goals of the strategic plan. Several of the industries with the highest number of respondents that commute outside of Charles County for work align with the industries of focus identified in Charles County's strategic plan for economic development.⁸⁷ Other than Public Administration, which includes employment by the federal government, the two industries with the highest number of respondents who travel outside Charles County for work were Healthcare and Social Assistance and the Professional, Scientific, and Technical Services. Healthcare and Social Assistance, which accurately matches the Healthcare Services industry detailed in Target 2 of the strategic plan, accounts for 9 percent of respondents who commute outside of the county for work.⁸⁸ The Professional, Scientific, and Technical Services industry, in which 8.5 percent of respondents were employed, includes engineering, scientific research and development, and computer systems design, thereby adequately matching the R&D, Engineering, and Computing industry outlined in Target 4 of the strategic plan.⁸⁹ This industry also contributes to Federal Contracting and Professional and Business Services, included in Target 4 of the strategic plan. Therefore, the

⁸⁷ Garner Economics LLC. "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 23-39.

⁸⁸ Garner Economics LLC. "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 23-39, accessed June 2, 2017.

⁸⁹ Garner Economics LLC. "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 23-39, accessed June 2, 2017.

survey results indicate that three of the four target industries identified in Charles County's strategic plan for economic development have relatively high shares of out-of-county commuters who have the knowledge and skillsets that businesses in the target industries can utilize.

Occupational classification of respondents revealed that out-of-county commuters living in Charles County are employed in both high- and low-paying occupations, indicating that there is not a high degree of concentration of a particular socioeconomic group that travels out of the county for work. Similar to industry-level findings, respondents' occupational groups also demonstrated prominent connections to Charles County's strategic plan for economic development. Target 1 of the strategic plan focusses on the Federal Contracting and High-Value Professional and Business Services industry, which includes target subsectors such as Accounting, Tax Preparation, Bookkeeping, and Payroll Services, Management, and Office Administrative Services.⁹⁰ These industry subsectors align closely with Management, Office and Administrative Support, and Business and Financial Operations occupations, which are the top three occupational groupings among out-of-county commuters in Charles County. Thus, the county is well positioned to support its target industries as its strategic plan is implemented and carried out.

Moving forward, to attract new business, Charles County can highlight the diverse workforce that is dedicated to living to the county. Survey responses indicate that they have moved to and choose to live in the county despite a lack of relevant employment opportunities—in fact, over 76 percent of respondents mentioned a reason for living in Charles County that was not associated with having lived there for their entire life (see Figure 24). Further application of this study's research to the strategic plan, and the target areas in particular, will be explored in Section 7.

6.0 American Community Survey Commuter Analysis

RESI supplemented the dedicated survey analysis with additional information on Charles County residents commuting outside of the county for work, obtained from the U.S. Census ACS. This section evaluates the composition of Charles County commuters by both industry codes (North American Industry Classification System, or NAICS) and occupational groups (Standard Occupational Classifications, or SOCs). A comparison of both industry groups and occupational groups highlights patterns that could be obscured by focusing on only one of the two classifications. For example, an information technology professional may work in the Professional, Scientific, and Technical Services industry but also could provide network security for a firm in the Manufacturing industry.

The following subsections provide an overview of residents commuting outside of Charles County for employment, followed by more detailed analysis of the top industries and

⁹⁰ Garner Economics LLC. "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 23-39.

occupations by employment, duration of commute, and educational characteristics. Additional data for residents working within Charles County is included for comparison.

6.1 Overview by NAICS and SOCs

For a high-level overview of out-of-county commuter characteristics, RESI first evaluated industry codes using two-digit NAICS classifications. As shown below in Figure 25, the greatest number of employees commuting outside of Charles County work in the Public Administration industry with 13,314 individuals, corresponding to 27.6 percent of all out-of-county commuters. This was followed by the Health Care and Social Assistance industry (6,108 individuals or 12.7 percent) and the Professional, Scientific, and Technical Services industry (5,406 individuals or 11.2 percent). For comparison, the proportions of in-county commuters for each major industry are also included in the summary table below.

Figure 25: Major Industry of Employment by Commuting Status

NAICS	Description	Out-of-County Commuters		In-County Commuters	
		Number	Percent	Number	Percent
11	Agriculture, Forestry, Fishing and Hunting	45	0.1%	74	0.3%
21	Mining	0	0.0%	77	0.3%
22	Utilities	560	1.2%	380	1.3%
23	Construction	3,466	7.2%	2,333	7.9%
31-33	Manufacturing	1,413	2.9%	797	2.7%
42	Wholesale Trade	831	1.7%	439	1.5%
44-45	Retail Trade	3,288	6.8%	4,622	15.6%
48-49	Transportation and Warehousing	2,133	4.4%	1,041	3.5%
51	Information	914	1.9%	368	1.2%
52	Finance and Insurance	1,269	2.6%	575	1.9%
53	Real Estate Rental and Leasing	614	1.3%	795	2.7%
54	Professional, Scientific, and Technical Services	5,406	11.2%	1,659	5.6%
55	Management of Companies and Enterprises	11	0.0%	0	0.0%
56	Administrative and Support and Waste Management and Remediation Services	2,471	5.1%	1,186	4.0%
61	Educational Services	2,515	5.2%	3,525	11.9%
62	Health Care and Social Assistance	6,108	12.7%	3,655	12.4%
71	Arts, Entertainment, and Recreation	609	1.3%	219	0.7%
72	Accommodation and Food Services	1,036	2.1%	2,693	9.1%
81	Other Services (except Public Administration)	2,197	4.6%	1,931	6.5%
92	Public Administration	13,314	27.6%	3,220	10.9%
Total		48,200	100%	29,589	100%

Sources: IPUMS, RESI, U.S. Census

Compared to the survey results in Section 5, employment in the top-three major industries follow the same trend in the ACS data. However, the proportion of overall employment for the top-three industries within the ACS sample varied somewhat compared to the commuter survey. For example, employment in the Public Administration industry comprised 27.6 percent of all out-of-county commuters in the ACS sample, but was the industry of employment for 39.5 percent of all out-of-county commuters surveyed. The second-highest proportion in both the ACS and commuter survey samples was for the Health Care and Social Assistance industry, representing 12.7 percent of out-of-county commuters in the ACS sample, and 9.0 percent of the commuter survey sample. For Charles County residents working within the county, the top major industries of employment differed from the out-of-county commuters. Employment in Retail Trade comprised the greatest proportion of in-county workers (15.6 percent), followed by Health Care and Social Assistance (12.4 percent) and Educational Services (11.9 percent).

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Differences in income levels by major two-digit industry were evaluated between residents working outside of Charles County and those working within the county, shown in Figure 26 below.

Figure 26: Average Annual Income by Major Industry and Commuting Status

NAICS	Description	Out-of-County Commuters	In-County Commuters	Greater Income Level
11	Agriculture, Forestry, Fishing and Hunting	\$101,017	\$47,028	Outside
21	Mining	N/A	\$21,057	N/A
22	Utilities	\$76,052	\$71,586	Outside
23	Construction	\$64,119	\$66,266	Inside
31-33	Manufacturing	\$70,404	\$49,144	Outside
42	Wholesale Trade	\$74,447	\$57,091	Outside
44-45	Retail Trade	\$46,654	\$28,514	Outside
48-49	Transportation and Warehousing	\$62,908	\$38,821	Outside
51	Information	\$74,801	\$51,570	Outside
52	Finance and Insurance	\$69,515	\$89,563	Inside
53	Real Estate Rental and Leasing	\$81,404	\$86,590	Inside
54	Professional, Scientific, and Technical Services	\$92,523	\$86,291	Outside
55	Management of Companies and Enterprises	\$30,379	N/A	N/A
56	Administrative and Support and Waste Management and Remediation Services	\$58,495	\$57,285	Outside
61	Educational Services	\$64,365	\$49,180	Outside
62	Health Care and Social Assistance	\$53,320	\$41,684	Outside
71	Arts, Entertainment, and Recreation	\$44,692	\$39,680	Outside
72	Accommodation and Food Services	\$31,800	\$17,181	Outside
81	Other Services (except Public Administration)	\$55,158	\$39,653	Outside
92	Public Administration	\$93,434	\$65,682	Outside

Sources: IPUMS, RESI, U.S. Census

For the majority of industries, workers commuting outside of Charles County reported higher average annual incomes. The greatest difference in income levels was in the Agriculture, Forestry, Fishing, and Hunting industry, which had a nearly \$54,000 difference between average in-county salary (\$47,028) and out-of-county salary (\$101,017). Workers in the Public Administration industry had the second-highest wage gap; Charles County residents employed outside of the county made an average of \$93,434, compared to in-county workers who made an average of \$65,682. Three industries—Construction, Finance and Insurance, and Real Estate Rental and Leasing—had higher average salaries for workers within Charles County. The

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greatest difference was in the Finance and Insurance Industry, with in-county workers making an average of \$20,048 more compared to out-of-county workers.

In addition to evaluating the major industries that employ out-of-county commuters, occupational classifications were also examined. Figure 27 below shows the number of individuals working in each of the major two-digit SOC groups and commuting outside of Charles County. Once again, the proportion of in-county commuters from the ACS sample are included for comparison in the summary table below.

Figure 27: Out-of-County Commuters by Two-Digit SOC

SOC	Occupation Description	Out-of-County Commuters		In-County Commuters	
		Number	Percent	Number	Percent
11	Management	6,537	13.6%	2,778	9.4%
13	Business and Financial Operations	3,870	8.0%	1,074	3.6%
15	Computer and Mathematical	3,642	7.6%	533	1.8%
17	Architecture and Engineering	865	1.8%	506	1.7%
19	Life, Physical, and Social Science	256	0.5%	170	0.6%
21	Community and Social Service	759	1.6%	434	1.5%
23	Legal	651	1.4%	222	0.8%
25	Education, Training, and Library	1,362	2.8%	2,626	8.9%
27	Arts, Design, Entertainment, Sports, and Media	656	1.4%	462	1.6%
29	Healthcare Practitioners and Technical	2,446	5.1%	1,193	4.0%
31	Healthcare Support	869	1.8%	662	2.2%
33	Protective Service	4,053	8.4%	763	2.6%
35	Food Preparation and Serving Related	667	1.4%	2,164	7.3%
37	Building and Grounds Cleaning and Maintenance	769	1.6%	837	2.8%
39	Personal Care and Service	1,225	2.5%	1,576	5.3%
41	Sales and Related	2,743	5.7%	3,833	13.0%
43	Office and Administrative Support	8,466	17.6%	4,260	14.4%
45	Farming, Fishing, and Forestry	19	0.0%	-	0.0%
47	Construction and Extraction	2,723	5.6%	1,527	5.2%
49	Installation, Maintenance, and Repair	1,803	3.7%	918	3.1%
51	Production	1,303	2.7%	713	2.4%
53	Transportation and Material Moving	1,947	4.0%	1,816	6.1%
55	Military-Specific	569	1.2%	522	1.8%
Total		48,200	100.0%	29,589	100.0%

Sources: IPUMS, RESI, U.S. Census

As detailed above, the greatest number of out-of-county commuters were employed in Office and Administrative Support occupations and Management occupations with approximately

8,466 employees and 6,537 employees, respectively. As proportions of all out-of-county commuters, Administrative Support occupations comprised 17.6 percent while Management occupations represented 13.6 percent. Three other occupational groups—Protective Service Occupations, Business and Financial Operations Occupations, and Computer and Mathematical Occupations—each had roughly 4,000 workers commuting outside of Charles County for employment. In the commuter survey responses reviewed in Section 5, results were similar with the greatest proportions of out-of-county workers in Management occupations (18.3 percent), followed by Office and Administrative Support Occupations (12.0 percent).

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Differences in income levels by major two-digit occupational groups were evaluated between residents working outside of Charles County and those working within the county, shown in Figure 28 below.

Figure 28: Average Annual Income by Major Occupational Group and Commuting Status

SOC	Occupation Description	Out-of-County Commuters	In-County Commuters	Greater Income Level
11	Management	\$99,348	\$91,375	Outside
13	Business and Financial Operations	\$87,980	\$76,933	Outside
15	Computer and Mathematical	\$104,690	\$95,436	Outside
17	Architecture and Engineering	\$100,725	\$104,386	Inside
19	Life, Physical, and Social Science	\$95,388	\$78,175	Outside
21	Community and Social Service	\$54,816	\$47,154	Outside
23	Legal	\$94,455	\$161,959	Inside
25	Education, Training, and Library	\$63,790	\$47,152	Outside
27	Arts, Design, Entertainment, Sports, and Media	\$83,221	\$56,872	Outside
29	Healthcare Practitioners and Technical	\$81,659	\$74,370	Outside
31	Healthcare Support	\$25,302	\$30,339	Inside
33	Protective Service	\$75,441	\$70,034	Outside
35	Food Preparation and Serving Related	\$32,436	\$14,735	Outside
37	Building and Grounds Cleaning and Maintenance	\$36,713	\$32,239	Outside
39	Personal Care and Service	\$31,081	\$31,026	Outside
41	Sales and Related	\$55,659	\$32,899	Outside
43	Office and Administrative Support	\$59,126	\$36,186	Outside
45	Farming, Fishing, and Forestry	\$130,860	N/A	N/A
47	Construction and Extraction	\$59,234	\$48,665	Outside
49	Installation, Maintenance, and Repair	\$59,953	\$46,549	Outside
51	Production	\$56,397	\$49,146	Outside
53	Transportation and Material Moving	\$53,508	\$35,206	Outside
55	Military-Specific	\$65,514	\$31,130	Outside

Sources: IPUMS, RESI, U.S. Census

For almost all of the major occupational groups, workers commuting outside of Charles County reported higher average annual incomes. Notably however, the greatest difference in income levels was in Legal occupations, which had a \$67,503 difference between the higher average in-county salary (\$161,959) and out-of-county salary (\$94,455). This finding likely indicates that more legal support workers—with comparatively lower salaries than attorneys—work outside of the county, while the smaller number of in-county workers (222 individuals) are more highly-paid attorneys. Two other occupational groups—Architecture and Engineering, and Health Care Support—had higher average salaries within Charles County. Workers in Military-specific

occupations had the second-highest wage gap overall and the highest wage premium for traveling outside of the county; Charles County residents employed outside of the county made an average of \$65,514, compared to in-county workers who made an average of \$31,130.

RESI further assessed the top industry and occupational groups comprising the greatest number of Charles County residents that commute outside of the county for employment. The following subsections provide additional information on the top-ten detailed industries and occupational codes of the major industry and occupational groups that employ out-of-county commuters, respectively.

6.1.1 Detailed Industries of Charles County Commuters

RESI evaluated the top-three major NAICS codes with the greatest number of commuters by detailed industries (three-, four-, five-, or six-digit NAICS level). As shown above, the Public Administration industry had the greatest number of out-of-county commuters (13,314), with the top-ten detailed industries (by employment) in this group shown below in Figure 29. In-county commuters within each detailed industry are also displayed below for comparison, with the percentages representing the proportion of all workers in the Public Administration industry for each commuting group.

Figure 29: Top Public Administration Industries of Commuters by Detailed NAICS

NAICS	Description	Out-of-County Commuters		In-County Commuters	
		Number	Percent	Number	Percent
928	National Security and International Affairs	4,686	35.2%	914	28.4%
922	Justice, Public Order, and Safety Activities	3,005	22.6%	788	24.5%
926, 927	Administration of Economic Programs and Space Research	1,860	14.0%	235	7.3%
92111, 92112, 92114	Executive Offices and Legislative Bodies	1,028	7.7%	288	8.9%
92113	Public Finance Activities	661	5.0%	65	2.0%
923	Administration of Human Resource Programs	589	4.4%	213	6.6%
928110	U.S. Air Force	529	4.0%	19	0.6%
924, 925	Administration of Environmental Quality and Housing Programs	311	2.3%	75	2.3%
92119	Other General Government and Support	294	2.2%	47	1.5%
928110	U.S. Navy	145	1.1%	72	2.2%
Total, Top 10		13,108	98.5%	2,716	84.3%

Sources: IPUMS, RESI, U.S. Census

Of the out-of-county commuters employed in the Public Administration industry, the greatest number were classified in National Security and International Affairs with 4,686, or 35.2 percent of out-of-county commuters in this industry. The second-highest detailed industry was the Justice, Public Order, and Safety Activities industry with 3,005 employees, followed by 1,860 employees in Administration of Economic Programs and Space Research. There are also a significant number of employees in the Executive Offices and Legislative Bodies industry (1,028 individuals), comprising 7.8 percent of the out-of-county commuters employed in Public Administration. While there are significantly fewer workers employed within Charles County in the Public Administration industry, the top detailed occupations follow similar patterns to out-of-county commuters.

Figure 30 below shows the top-ten detailed industries within Health Care and Social Assistance, which had the second-highest number of employees living inside Charles County and commuting outside the county for work (6,108). In-county commuters within each detailed industry are also displayed below for comparison, with the percentages representing the proportion of all workers in the Health Care and Social Assistance industry for each commuting group.

Figure 30: Top Health Care and Social Assistance Industries of Commuters by Detailed NAICS

NAICS	Description	Out-of-County Commuters		In-County Commuters	
		Number	Percent	Number	Percent
622	Hospitals	2,453	40.2%	825	22.6%
6215, 6219	Other Healthcare Services	594	9.7%	211	5.8%
6214	Outpatient Care Centers	545	8.9%	240	6.6%
6211	Offices of Physicians	482	7.9%	416	11.4%
6241	Individual and Family Services	428	7.0%	354	9.7%
6212	Offices of Dentists	389	6.4%	197	5.4%
6232, 6233, 6239	Residential Care Facilities, Except Skilled Nursing Facilities	379	6.2%	66	1.8%
6244	Child Day Care Services	358	5.9%	803	22.0%
6231	Nursing Care Facilities	170	2.8%	298	8.2%
6216	Home Healthcare Services	148	2.4%	74	2.0%
Total, Top 10		5,946	97.3%	3,484	95.3%

Sources: IPUMS, RESI, U.S. Census

In the Health Care and Social Assistance industry, by far, the greatest number of out-of-county commuters were classified in the Hospitals industry with 2,453 workers or 40.2 percent of out-of-county commuters in this industry. The second-highest detailed was Other Healthcare Services with 594 employees, followed by 545 employees in Outpatient Care Centers. Workers in the Offices of Physicians industry comprised 482 out-of-county commuters, while 428

employees were categorized in the Individual and Family Services industry. Both in- and out-of-county commuters had the greatest proportion of workers in Hospitals, though workers in Child Day Care Services comprised a much greater proportion of in-county commuters (22.0 percent) compared to individuals traveling outside of the county (5.9 percent). Workers in Child Day Care Services had an average wage of \$28,430 in 2017, significantly lower than the state average of \$57,270 for all workers.^{91,92} Given this low wage, it is unsurprising that these workers would be less likely to commute out of the county for employment.

Figure 31 below shows the top-ten detailed industries within the Professional, Scientific, and Technical Services industry, which had the third-highest number of employees working outside of Charles County (5,406).

Figure 31: Top Professional, Scientific, and Technical Services Industries of Commuters by Detailed NAICS

NAICS	Description	Out-of-County Commuters		In-County Commuters	
		Number	Percent	Number	Percent
5415	Computer Systems Design and Related Services	2,161	40.0%	308	18.6%
5413	Architectural, Engineering, and Related Services	934	17.3%	492	29.7%
5411	Legal Services	738	13.7%	165	9.9%
5416	Management, Scientific and Technical Consulting Services	666	12.3%	230	13.9%
5417	Scientific Research and Development Services	527	9.7%	181	10.9%
5412	Accounting, Tax Preparation, Bookkeeping and Payroll Services	173	3.2%	36	2.2%
5419	Other Professional, Scientific and Technical Services	72	1.3%	67	4.0%
54194	Veterinary Services	70	1.3%	13	0.8%
5414	Specialized Design Services	34	0.6%	116	7.0%
5418	Advertising, Public Relations, and Related Services	31	0.6%	51	3.1%
Total, Top 10		5,406	100.0%	1,659	100.0%

Sources: IPUMS, RESI, U.S. Census

⁹¹ "May 2017 National Industry-Specific Occupational Employment and Wage Estimates: NAICS 624400 - Child Day Care Services," U.S. Bureau of Labor Statistics, accessed June 20, 2018, https://www.bls.gov/oes/current/naics4_624400.htm.

⁹² "May 2017 State Occupational Employment and Wage Estimates: Maryland," U.S. Bureau of Labor Statistics, accessed June 20, 2018, https://www.bls.gov/oes/current/oes_md.htm#00-0000.

As shown above, the greatest number of out-of-county commuters in the Professional, Scientific, and Technical Services industry were found in the Computer Systems Design and Related Services industry with 2,161 workers. The second-highest number of employees commuting outside of Charles County were in the Architectural, Engineering, and Related Services industry with 934 workers, followed by 738 workers in the Legal Services industry. In-county workers showed similar employment trends for the top detailed industries within Professional, Scientific, and Technical Services, with several notable differences. In-county commuters in the Computer Systems Design and Related Services industry comprise a significantly lower proportion (18.6 percent) of workers in the Professional, Scientific, and Technical Services industry, compared to the 40.0 percent of workers who commute out of the county. Similarly, workers in Legal Services commuting outside of the county comprise 13.7 percent of employees in the Professional, Scientific, and Technical Services industry, but represent a lower proportion of in-county commuters (9.9 percent). In-county commuters in the Architectural, Engineering, and Related Services industry comprised the largest proportion of workers (29.7 percent) within the overall major industry, but only represented 17.3 percent of out-of-county commuters.

After evaluating detailed NAICS codes, RESI determined detailed occupations within the top SOC codes that employ the greatest number of out-of-county commuters from Charles County, as shown previously in Figure 27. The following subsection evaluates the top-ten detailed Office and Administrative occupations and Management occupations, respectively.

6.1.2 Detailed Occupations of Charles County Commuters

Detailed occupations (six-digit SOC level) were assessed focusing in on the top-two major SOC code groups with the greatest number of out-of-county commuters residing in Charles County. Office and Administrative Support occupations had the greatest number of out-of-county commuters, as stated above, with the top-ten detailed occupations (by employment) in this group shown in Figure 32 below.

Figure 32: Top Office and Administration Occupations of Commuters by Six-Digit SOC

SOC	Description	Out-of-County Commuters		In-County Commuters	
		Number	Percent	Number	Percent
43-6011	Executive Secretaries and Executive Administrative Assistants	2,148	25.4%	948	22.3%
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1,512	17.9%	377	8.8%
43-4051	Customer Service Representatives	484	5.7%	473	11.1%
43-5081	Stock Clerks and Order Fillers	446	5.3%	522	12.3%
43-3031	Bookkeeping, Accounting, and Auditing Clerks	444	5.2%	89	2.1%
43-4171	Receptionists and Information Clerks	432	5.1%	232	5.4%
43-9061	Office Clerks, General	410	4.8%	289	6.8%
43-5052	Postal Service Mail Carriers	304	3.6%	82	1.9%
43-9199	Office and Administrative Support Workers, All Other	286	3.4%	243	5.7%
43-9022	Word Processors and Typists	239	2.8%	76	1.8%
Total, Top 10		6,705	79.2%	3,331	78.2%

Sources: IPUMS, RESI, U.S. Census

As illustrated above, the Office and Administrative Support occupation with the greatest number of employees commuting outside of Charles County was executive secretaries and executive administrative assistants with 2,148 individuals or 25.4 percent of workers in this occupational group. Comparatively, in-county workers also had the plurality of workers in this occupational group with a slightly lower proportion of 22.3 percent. First-line supervisors of office and administrative support workers was the detailed occupation with the second-highest number of out-of-county commuters (1,512 employees), with a lower proportion of in-county commuters in this detailed occupation (8.8 percent). Executive secretaries and executive administrative assistants and first-line supervisors of office and administrative support workers had average wages of \$67,570 and \$62,060, respectively, both higher than the Maryland

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average of \$57,270.⁹³ In-county commuter had higher proportions of employees working as stock clerks and order fillers (12.3 percent) and customer service representatives (11.1 percent). These occupations both had lower than annual wages compared to the state average, at \$27,810 and \$36,820, respectively.

Management occupations had the second-highest number of out-of-county commuters, as stated previously, with 6,537 employees living in Charles County and working elsewhere. The top-ten detailed occupations within this group (by employment) are shown in Figure 33 below.

Figure 33: Top Management Occupations of Commuters by Six-Digit SOC

SOC	Description	Out-of-County Commuters		In-County Commuters	
		Number	Percent	Number	Percent
11-9199	Managers, All Other	2,695	41.2%	885	31.9%
11-3031	Financial Managers	543	8.3%	61	2.2%
11-3021	Computer and Information Systems Managers	416	6.4%	12	0.4%
11-3121	Human Resources Managers	373	5.7%	116	4.2%
11-9031	Education Administrators, Preschool and Childcare Center/Program	310	4.7%	300	10.8%
11-9111	Medical and Health Services Managers	256	3.9%	54	1.9%
11-1021	General and Operations Managers	253	3.9%	85	3.1%
11-9051	Food Service Managers	250	3.8%	224	8.1%
11-3071	Transportation, Storage, and Distribution Managers	204	3.1%	102	3.7%
11-9021	Construction Managers	188	2.9%	276	9.9%
Total, Top 10		5,488	84.0%	2,115	76.1%

Sources: IPUMS, RESI, U.S. Census

As illustrated above, (all other) managers was the detailed occupation that had, by far, the greatest number of workers commuting outside of Charles County for employment. In total, there were 2,695 individuals or 41.2 percent of all out-of-county commuters in Management occupations. A smaller proportion of in-county commuters (31.9 percent) worked in this high-paying occupation, with an average salary of \$123,360 in 2017.⁹⁴ Individuals employed as financial managers comprised the second-highest detailed occupational group with 543 workers (8.3 percent) commuting outside of the county. Again, a lower proportion of in-county commuters (2.2 percent) were employed as financial managers, which had an average salary in 2017 of \$148,990. In-county commuters had a higher proportion of employees working as education administrators for preschool and childcare centers/programs with 10.8 percent of all Management occupations. This occupation had an average wage of \$57,960 in 2017—higher

⁹³ “May 2017 State Occupational Employment and Wage Estimates: Maryland,” U.S. Bureau of Labor Statistics.

⁹⁴ Ibid.

than the state average but significantly lower than the average wage for Management occupations of \$128,650.⁹⁵

6.2 Duration of Commute by Industry and Occupational Group

Research has found that long commutes, particularly those above one hour, can negatively impact employees' workplace satisfaction and increases their probability of employee turnover.⁹⁶ A study evaluating commuting trends and workplace satisfaction in 13 countries found that 39 percent of individuals commuting more than an hour "seriously considered leaving their job" at least once in the past two years, compared with 19 percent for all workers.⁹⁷ A separate study found that workers with a very short commute, less than five miles, resulted in workers staying with their employers 20 percent longer.⁹⁸

⁹⁵ "May 2017 State Occupational Employment and Wage Estimates: Maryland," U.S. Bureau of Labor Statistics.

⁹⁶ John Sullivan, "How Commute Issues Can Dramatically Impact Employee Retention," Talent Management and HR, April 25, 2015, accessed June 18, 2018, <https://www.tlnt.com/how-commute-issues-can-dramatically-impact-employee-retention/>.

⁹⁷ "Long Distance Commuters More Likely to Leave Job," Flexibility, January 2010, accessed June 18, 2018, <http://www.flexibility.co.uk/flexwork/general/commuters-leave-jobs.htm>.

⁹⁸ Sullivan, "How Commute Issues Can Dramatically Impact Employee Retention."

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RESI analyzed commuting times by both industry and occupational group to gain insight on the types of employers that would likely have the greatest potential for both attracting Charles County residents to work at their establishments and retaining these employees for a significant amount of time. For comparison purposes, commuting times were defined as short (30 minutes or less), medium (31-60 minutes), long (61-90 minutes), and super (over 90 minute) commutes. The majority of ACS respondents had a medium commute with 54.7 percent, followed by long commutes (20.8 percent) and short commutes (20.1 percent). Less than 5 percent of all out-of-county commuters reported a super commute exceeding 90 minutes. Figure 34 below summarizes the commute duration of out-of-county workers by major industry.

Figure 34: Out-of-County Commute Time by Industry

NAICS	Description	Short	Medium	Long	Super
11	Agriculture, Forestry, Fishing and Hunting	0.0%	0.0%	66.7%	33.3%
21	Mining	n/a	n/a	n/a	n/a
22	Utilities	27.1%	56.8%	16.1%	0.0%
23	Construction	26.5%	44.8%	24.7%	4.0%
31-33	Manufacturing	23.7%	56.3%	10.5%	9.4%
42	Wholesale Trade	33.1%	58.2%	8.7%	0.0%
44-45	Retail Trade	32.1%	51.0%	14.2%	2.8%
48-49	Transportation and Warehousing	15.3%	66.0%	17.1%	1.6%
51	Information	6.0%	53.8%	27.2%	12.9%
52	Finance and Insurance	22.1%	32.9%	40.4%	4.6%
53	Real Estate Rental and Leasing	20.2%	50.0%	19.2%	10.6%
54	Professional, Scientific, and Technical Services	11.1%	50.4%	34.2%	4.3%
55	Management of Companies and Enterprises	0.0%	100.0%	0.0%	0.0%
56	Administrative and Support and Waste Management and Remediation Services	23.8%	52.8%	17.9%	5.5%
61	Educational Services	33.4%	51.3%	13.6%	1.7%
62	Health Care and Social Assistance	23.6%	55.7%	17.8%	3.0%
71	Arts, Entertainment, and Recreation	25.5%	51.4%	16.4%	6.7%
72	Accommodation and Food Services	36.3%	47.6%	6.5%	9.7%
81	Other Services (except Public Administration)	27.8%	59.0%	8.5%	4.7%
92	Public Administration	11.5%	60.6%	22.8%	5.1%

Sources: IPUMS, RESI, U.S. Census

When industry of occupation is considered, individuals working in Agriculture, Forestry, Fishing and Hunting had the greatest proportion of workers with a long or super commute—66.6 percent and 33.3 percent, respectively. Individuals working in the Finance and Insurance

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industry had the second-highest proportion of long commutes with 40.4 percent traveling 61 to 90 minutes, followed by those in the Professional, Scientific, and Technical Services industry at 34.2 percent. The second- and third-highest proportions of super commutes were in the Information industry with 12.9 percent, and the Real Estate Rental and Leasing industry with 10.6 percent of all workers traveling more than 90 minutes. Based on the existing research surrounding the negative impacts of long commutes, businesses in these industries may find a higher-than-average willingness of qualified Charles County residents to consider changing their employer to reduce their substantial commute.

RESI also evaluated differences in commute length by major occupational group, focusing on residents commuting outside of the county. This assessment adds additional context to the occupations which employers may find easiest to fill if they were to relocate to Charles County. Findings are illustrated in Figure 35 below.

Figure 35: Out-of-County Commute Time by Occupational Group

SOC	Occupational Group Description	Short	Medium	Long	Super
11	Management	15.5%	49.5%	27.4%	7.6%
13	Business and Financial Operations	11.5%	60.3%	25.3%	2.9%
15	Computer and Mathematical	9.9%	54.1%	31.2%	4.7%
17	Architecture and Engineering	18.3%	59.2%	19.8%	2.8%
19	Life, Physical, and Social Science	14.1%	70.7%	4.7%	10.5%
21	Community and Social Service	23.6%	66.8%	9.6%	0.0%
23	Legal	7.1%	41.3%	49.0%	2.6%
25	Education, Training, and Library	29.7%	59.8%	10.1%	0.3%
27	Arts, Design, Entertainment, Sports, and Media	4.9%	58.1%	19.1%	18.0%
29	Healthcare Practitioners and Technical	33.4%	55.2%	8.9%	2.5%
31	Healthcare Support	37.6%	58.5%	3.9%	0.0%
33	Protective Service	21.8%	62.2%	13.3%	2.7%
35	Food Preparation and Serving Related	48.9%	41.7%	5.7%	3.7%
37	Building and Grounds Cleaning and Maintenance	21.3%	54.2%	10.7%	13.8%
39	Personal Care and Service	30.0%	51.3%	14.2%	4.5%
41	Sales and Related	27.0%	50.2%	21.2%	1.6%
43	Office and Administrative Support	15.9%	49.0%	28.4%	6.7%
45	Farming, Fishing, and Forestry	0.0%	0.0%	100.0%	0.0%
47	Construction and Extraction	31.0%	47.4%	17.9%	3.7%
49	Installation, Maintenance, and Repair	18.3%	62.8%	15.3%	3.5%
51	Production	22.9%	57.3%	16.0%	3.8%
53	Transportation and Material Moving	22.8%	68.2%	8.2%	0.8%
55	Military-Specific	17.9%	73.6%	8.4%	0.0%

Sources: IPUMS, RESI, U.S. Census

All ACS respondents residing in Charles County, but working in Farming, Fishing, and Forestry occupations outside of Charles County reported a long commute between 61 and 90 minutes. Employees in Legal occupations and Computer and Mathematical occupations working outside of the county each had high proportions of long commutes, at 49.0 percent and 31.2 percent, respectively. The highest rates of super commutes, over 90 minutes, were in Arts, Design, Entertainment, Sports, and Media occupations (18.0 percent); Building and Grounds Cleaning and Maintenance occupations (13.8 percent); and Life, Physical, and Social Science occupations (10.5 percent). These occupational groups, particularly Legal occupations and Computer and Mathematical occupations, represent employment categories that would likely be attractive to Charles County residents currently commuting outside of the county. Both of these occupations also had high average annual wages in 2017, with workers in Legal occupations earning an average of \$92,010 and Computer and Mathematical occupations earning \$99,010.⁹⁹

The highest concentration of medium-time commutes was for Military-Specific occupations at 73.6 percent, which may be reflective of the large number of individuals employed at military bases adjacent to Charles County including Naval Surface Warfare Center in King George County, Virginia and Joint Base Andrews in Prince George's County.

6.3 Educational Characteristics of Out-of-County Commuters

RESI also evaluated the educational characteristics of both out-of-county commuters and in-county commuters. Educational attainment levels were classified as high school or less, some college or associate degree, bachelor's degree, and graduate degree. A comparison of out-of-county commuters and in-county commuters is shown in Figure 36 below.

Figure 36: Educational Characteristics of Charles County Residents by Work Location

Resident Work Location	HS or Less	Some College or Associate Degree	Bachelor's Degree	Graduate Degree
Out-of-County Commuters	29.4%	37.8%	20.1%	12.7%
Inside County	43.5%	32.0%	14.6%	10.0%

Sources: IPUMS, RESI, U.S. Census

The plurality of out-of-county commuters had some college or an associate degree (37.8 percent), followed by high school or less (29.4 percent). Approximately 20.1 percent of out-of-county commuters held a bachelor's degree, while 12.7 percent have attained a graduate degree. Comparatively, the plurality of ACS respondents (43.5 percent) of in-county workers had a high school diploma or less, followed by 32.0 percent with some college or an associate degree. There were lower proportions of in-county commuters with bachelor's degrees (14.6 percent) or graduate degrees (10.0 percent) compared to out-of-county commuters.

⁹⁹ "May 2017 State Occupational Employment and Wage Estimates: Maryland," U.S. Bureau of Labor Statistics.

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To gain additional insight on the industries and occupations with highly-educated workers (those with a bachelor's degree or greater) leaving the county for work, RESI evaluated educational levels by industry and occupation for out-of-county commuters. This information highlights the industries and occupations that have significant potential for capturing these employees if additional businesses in these occupations and industries moved to Charles County. Figure 37 below shows the educational attainment of out-of-county commuters by major industry.

Figure 37: Educational Characteristics of Out-of-County Commuters by Industry

NAICS	Description	HS or Less	Some College or Associate Degree	Bachelor's Degree	Graduate Degree
11	Agriculture, Forestry, Fishing and Hunting	0.0%	57.8%	42.2%	0.0%
21	Mining	N/A	N/A	N/A	N/A
22	Utilities	45.4%	22.5%	6.4%	25.7%
23	Construction	57.3%	28.6%	10.1%	4.0%
31-33	Manufacturing	65.6%	15.4%	15.1%	3.8%
42	Wholesale Trade	35.1%	41.6%	23.2%	0.0%
44-45	Retail Trade	46.7%	37.0%	11.6%	4.7%
48-49	Transportation and Warehousing	47.6%	40.3%	7.2%	4.9%
51	Information	26.7%	28.2%	22.1%	23.0%
52	Finance and Insurance	29.6%	46.4%	19.1%	5.0%
53	Real Estate Rental and Leasing	16.9%	39.4%	29.0%	14.7%
54	Professional, Scientific, and Technical Services	16.5%	34.3%	30.0%	19.2%
55	Management of Companies and Enterprises	0.0%	100.0%	0.0%	0.0%
56	Administrative and Support and Waste Management and Remediation Services	35.9%	46.7%	14.9%	2.5%
61	Educational Services	21.7%	21.7%	26.7%	29.9%
62	Health Care and Social Assistance	25.5%	44.0%	18.5%	12.0%
71	Arts, Entertainment, and Recreation	25.3%	35.8%	31.2%	7.7%
72	Accommodation and Food Services	45.5%	45.1%	9.5%	0.0%
81	Other Services (except Public Administration)	43.6%	30.5%	22.2%	3.8%
92	Public Administration	14.8%	43.1%	23.5%	18.6%

Sources: IPUMS, RESI, U.S. Census

As detailed above, individuals employed in the Agriculture, Forestry, Fishing, and Hunting industry had the highest proportion of bachelor's degree holders commuting out of the county

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(42.2 percent), and the second-highest proportion of out-of-county commuters with some college or associate degree (57.8 percent). Focusing on graduate degree holders, the industries with the highest-proportion of out-of-county commuters were in Educational Services (29.9 percent), Utilities (25.7 percent), and Information (23.0 percent) industries.

To further evaluate differences in educational levels of out-of-county commuters, educational attainment by occupational groups are illustrated in Figure 38 below.

Figure 38: Educational Characteristics of Out-of-County Commuters by Occupational Group

SOC	Occupation Description	HS or Less	Some College or Associate Degree	Bachelor's Degree	Graduate Degree
11	Management	13.4%	32.9%	31.7%	22.0%
13	Business and Financial Operations	14.6%	28.7%	31.7%	25.0%
15	Computer and Mathematical	12.9%	38.8%	26.5%	21.9%
17	Architecture and Engineering	7.5%	43.0%	36.2%	13.3%
19	Life, Physical, and Social Science	18.0%	7.0%	22.7%	52.3%
21	Community and Social Service	8.0%	15.9%	39.3%	36.8%
23	Legal Occupations	12.3%	22.7%	8.3%	56.7%
25	Education, Training, and Library	6.1%	24.4%	41.0%	28.6%
27	Arts, Design, Entertainment, Sports, and Media	29.7%	18.9%	28.5%	22.9%
29	Healthcare Practitioners and Technical	13.4%	37.7%	31.7%	17.3%
31	Healthcare Support	20.1%	67.3%	0.0%	12.5%
33	Protective Service	23.7%	56.5%	15.3%	4.5%
35	Food Preparation and Serving Related	39.6%	45.7%	14.7%	0.0%
37	Building and Grounds Cleaning and Maintenance	71.0%	22.9%	6.1%	0.0%
39	Personal Care and Service	42.6%	32.8%	18.8%	5.8%
41	Sales and Related	42.6%	32.8%	18.8%	5.8%
43	Office and Administrative Support	33.3%	47.3%	15.4%	4.1%
45	Farming, Fishing, and Forestry	0.0%	0.0%	100.0%	0.0%
47	Construction and Extraction	67.0%	23.5%	9.5%	0.0%
49	Installation, Maintenance, and Repair	56.0%	33.8%	3.9%	6.3%
51	Production	67.3%	27.2%	3.5%	2.1%
53	Transportation and Material Moving	47.0%	45.9%	3.5%	3.6%
55	Military-Specific	7.7%	76.8%	2.1%	13.4%

Sources: IPUMS, RESI, U.S. Census

Interestingly, when evaluating occupations rather than industries, several occupational groups with high educational attainment are commuting outside of Charles County for employment. The highest proportions of graduate degree holders commuting outside of the county are in

Legal occupations (56.7 percent); Life, Physical, and Social Science occupations (52.3 percent); and Community and Social Service occupations (36.8 percent). Workers in these groups represent a potential pool of well-educated workers that new businesses in the county could attract for employment opportunities.

The highest proportions of individuals with high school degrees or less that commute outside of Charles County for work are in Building and Grounds Cleaning and Maintenance occupations (71.0 percent), Production occupations (67.3 percent), and Construction and Extraction occupations (67.0 percent). Notably, high proportions of workers in Military-Specific occupations (76.8 percent) and Healthcare Support occupations (67.3 percent) with some college or an associate degree commute outside of Charles County for employment. While those working in Military-Specific occupations are unlikely to be able to change their employer if working at a regional military installation, individuals in Healthcare Support occupations represent another pool of workers that may be more inclined to take advantage of employment opportunities from new businesses in Charles County.

Overall, the supplemental analysis of data on out-of-county commuters obtained from the U.S. Census ACS largely aligns with the survey findings discussed in Section 5.4. The top three industries for out-of-county commuters as reported by the U.S. Census—Public Administration, Health Care and Social Assistance, and Professional, Scientific, and Technical Services—were also the top three industries found through the survey. Similarly, Management, Office and Administrative Support, and Business and Financial Operations occupations accounted for three of the top four occupations for out-of-county commuters as reported by the U.S. Census, which aligns with the results for top occupational groups found by RESI’s survey analysis. These findings further support the conclusion that many of the industries and occupations that currently account for large numbers of out-of-county commuters align with the primary target areas outlined in Charles County’s strategic plan for economic development.

7.0 Strategies to Encourage Industry Relocation

The results of the commuter survey and the Project Team’s in-depth analysis of ACS data indicate that Charles County is well positioned to attract job growth in the four key target industries identified in its strategic plan. This section synthesizes the results of the team’s analyses to provide strategies and recommendations for driving job growth.

For each sector, the project team will analyze the following:

- What typically drives demand in this industry?
- How is this industry represented in the commuting workforce?
- What skills and certifications are commonly required in this industry, and how does that compare to the Charles County commuting workforce?
- What assets does Charles County have to attract this industry to the county?
- How prevalent is entrepreneurship/teleworking in this industry based on the survey and lit reviews?

7.1 Attracting Federal Contracting and Professional and Business Services Firms

As detailed in the strategic plan, Charles County is well positioned to serve the needs of federal contracting firms as well as those that specialize in related professional and business service industries.¹⁰⁰ Specific subsectors relevant to federal contracting and professional and business services include Management, Scientific, and Technical Consulting Services; Facilities Support Services; Electronic and Precision Equipment Repair and Maintenance; Accounting, Tax Preparation, Bookkeeping, and Payroll Services; Management of Companies and Enterprises; Office Administrative Services; and Business Support Services.¹⁰¹

The Project Team's survey analysis, as well as the analysis of the U.S. Census ACS data, show that a significant proportion of Charles County's workforce leaves the county for employment opportunities that align with Federal Contracting and Professional and Business Services. Roughly 12.4 percent of survey respondents work in either Professional, Scientific, and Technical Services or Administrative and Support and Waste Management and Remediation Services (please see Figure 19 in Section 5.4). Furthermore, of the survey sample included in the U.S. Census ACS commuter data, roughly 16 percent worked in these two industries (please see Figure 25 in Section 6.1).

With respect to certifications and specialized skillsets, of the respondents who provided specific details on the type of certification or license that they held, ten have security or top secret clearances, and all of these respondents work in Public Administration; Administrative and Support and Waste Management and Remediation Services; or Professional, Scientific, and Technical Services. Thus, workers who leave Charles County are already well qualified to serve the needs of federal contractors or other professional or business services firms.

Charles County's relatively low cost of living and doing business, coupled with its proximity to federal agencies in Washington, D.C., and major military installations, such as Naval Support Facilities at Dahlgren and Indian Head, also make it an attractive and affordable location for this target industry.

To attract federal contracting and related professional and business services firms, the Project Team recommends that the county use a two-pronged approach, focusing on awareness as well as incentives. These approaches can build upon and extend the work that is already being done on the Client's "Key Industries" website.¹⁰²

- To build on this existing information, the county should develop marketing and informational materials for distribution to potential firms that could feasibly relocate to Charles County. These materials should highlight the:

¹⁰⁰ Garner Economics and Development Counsellors International, "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 24, accessed June 14, 2018, http://www.meetcharlescounty.com/clientuploads/directory/downloads/download_files/CharlesCounty_final_051316.pdf.

¹⁰¹ Ibid, 23.

¹⁰² "Key Industries," Charles County Economic Development Department, accessed June 26, 2018, <http://www.meetcharlescounty.com/key-industries/>.

- qualifications of the county's resident workforce,
- the workforce's strong ties to the county despite a current shortage of employment opportunities,
- geographic factors unique to the county, including proximity to Washington, D.C. and the eventual development of light rail transit connections to the Metro system;¹⁰³ and
- economic factors, such as the relatively low cost of living and doing business.
- In addition to increasing awareness of the human capital available in the resident workforce, the county could provide incentives to firms that locate in Charles County and employ Charles County residents. These incentives could be knowledge-based, such as business advisement for small firms and/or a mentorship program with established businesses in the county, or additional financial incentives (grants or decreased fees) beyond the Target Industry Loan program that already exists.¹⁰⁴

While some of the information above exists on the Charles County Economic Development Department website on the "Workforce" and "Business Costs" pages, points of emphasis could be showcased on the homepage to increase visibility.^{105, 106}

7.2 Attracting Health Services Firms

As noted in the strategic plan, Health Services is already a thriving industry in Charles County; however, to grow this target industry, it will be important to expand the focus of the industry from the immediate local area to surrounding areas as well.¹⁰⁷ Similarly, the results of a 2015 Charles County Health Needs Assessment survey, produced by the University of Maryland Charles Regional Medical Center (located in La Plata), indicate that 77 percent of respondents leave the county for medical care, indicating that there is unmet demand in the county that additional Health Services firms could capture.¹⁰⁸

In addition, aging populations drive demand for healthcare services, as older resident populations are at greater risk for a variety of health problems, and have increased need for

¹⁰³ "Waldorf Urban Redevelopment Corridor," Charles County Economic Development Department, accessed June 26, 2018, <http://www.meetcharlescounty.com/wurc>.

¹⁰⁴ Charles County Economic Development Department, "Target Industry Loan," accessed June 26, 2018, http://www.meetcharlescounty.com/clientuploads/On%20Page%20Brochures/Target_Industry_Loan.pdf.

¹⁰⁵ "Workforce," Charles County Economic Development Department, accessed June 25, 2018, <http://www.meetcharlescounty.com/workforce/>.

¹⁰⁶ "Business Costs," Charles County Economic Development Department, accessed June 25, 2018, <http://www.meetcharlescounty.com/business-costs/>.

¹⁰⁷ Garner Economics LLC, "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 27.

¹⁰⁸ University of Maryland Charles Regional Medical Center, "Charles County Health Needs Assessment," 5, accessed June 15, 2018, <https://www.umms.org/charles/-/media/files/um-charles/community/fb42566b-2590-02ba-ecf1ae7380273032.pdf?la=en&upd=20171026005648&hash=2B5B31A325444D80AADA5D06FA59417FF4E0233D>.

treatments and preventative services.¹⁰⁹ The Maryland Department of Aging projected Charles County to have the fastest-growing population aged 60 and over of all Maryland counties, with a projected population increase of 94 percent in this age cohort between 2015 and 2030.¹¹⁰ Neighboring St. Mary's County and Calvert County are also projected to have extremely fast-growing populations of residents aged 60 and over during this time period.¹¹¹ These changing population dynamics in Charles County and the surrounding region illustrate the expected increase in demand for businesses in the Healthcare and Social Services industry in Charles County.

Based on the Project Team's survey analysis and consideration of the U.S. Census Bureau's ACS commuter data, a significant portion of Charles County's commuting workforce works in the Healthcare and Social Assistance industry. According to the survey results, Healthcare and Social Assistance was the second-most common industry for out-of-county commuters, with 9 percent of all respondents indicating that they were employed in this industry. Analysis of data from the U.S. Census ACS also found that this industry was the second-highest industry of employment for out-of-county commuters, with 12.7 percent of commuters traveling outside Charles County to work in Healthcare and Social Services. At the occupational level, analysis of U.S. Census Bureau ACS data indicates that Healthcare Practitioners and Technical Occupations and Healthcare Support occupations combined account for 6.9 percent of the total out-of-county commuting population in Charles County.

Workers in the Healthcare and Social Assistance industry have an extremely wide range of licenses and certificates. These certificates are often required by the state or federal government in order to be employed in the Health Services industry. The Division of Health Services at the College of Southern Maryland in La Plata, Charles County offers eight formal certificate programs, ranging from certificates required to be a medical or nursing assistant to certificates for demonstrated ability in providing emergency medical aid.¹¹² Moreover, the survey analysis reveals that approximately 11.6 percent of respondents who commute out of county for work hold a medical license or certificate, making medical licenses the second most common defined professional credential held by survey respondents.

Charles County has several assets for attracting health services firms to the area, and has been continuously working to create more opportunities for expansion. One of Charles County's greatest assets in this sector is the University of Maryland Charles Regional Medical Center (CRMC). The County's strategic plan recognized the value of CRMC for economic development, business activity, and employment in Charles County. However, it also noted the need for the

¹⁰⁹ Bureau of Labor Statistics, "Monthly Labor Review: Projections Overview and Highlights, 2016-26," 1, October 2017, accessed June 21, 2018, <https://www.bls.gov/opub/mlr/2017/article/pdf/projections-overview-and-highlights-2016-26.pdf>.

¹¹⁰ Maryland Department of Aging, "2017-2020 State Plan on Aging," 11, accessed June 20, 2018, http://aging.maryland.gov/Documents/MDStatePlan2017_2020Dated092216.pdf.

¹¹¹ Maryland Department of Aging, "2017-2020 State Plan on Aging," 11.

¹¹² "Healthcare," College of Southern Maryland, accessed June 21, 2018, <https://www.csmd.edu/programs-courses/non-credit/career-development/healthcare/>.

facility to expand operations to service populations outside of Charles County to build economic opportunities.¹¹³

In 2017, CRMC embarked on several new initiatives to expand its reach and increase the number of services available at the facility, including the opening of a new ambulatory Medical Pavilion, a Population Health Department, and a Palliative Care Department.¹¹⁴ Furthermore, at least eight new physicians joined the staff at the CRMC in 2017, holding a wide range of specializations.¹¹⁵ In June 2017, the CRMC began another community needs assessment study to update its targets for expansion in order to better serve the needs of the community. With the continued growth of this medical center, Charles County has the opportunity to emerge as a leader in health sciences.

In addition to CRMC, Charles County also has several business parks and new office building developments that are designed for medical services firms. An example of this is the new \$10 million office building currently under construction in the White Plains Corporate Center, which is projected to house approximately 200 employees in the medical profession.¹¹⁶ Other locations in Charles County that provide office space for medical firms include the Waldorf Center and the Fairview Executive Center Business Park, which currently houses the offices of the Johns Hopkins Community Physicians in Charles County.^{117, 118} Furthermore, Charles County's assets for attracting this industry include academic research and a highly skilled labor force in Health Sciences due to the location of College of Southern Maryland in La Plata. This institution offers a wide range of degree-granting and certificate programs for students looking to enter into the health sciences workforce.¹¹⁹ By leveraging partnerships between emerging and established medical firms and the Health Sciences Division at the College of Southern Maryland, Charles County has the opportunity to cultivate an attractive business environment for new health services firms.

Based on the survey results, entrepreneurship in this industry is not very prevalent. Of the 112 survey respondents that indicated they had previously thought of starting their own business, only six worked in the Healthcare and Social Services industry. However, with increasing collaborations between communication technologies and medicine, telemedicine is becoming a common practice in the Healthcare and Social Services industry. Innovations in telemedicine in Charles County include the recently unveiled Tele-Psych Program, which facilitates psychiatric

¹¹³ Garner Economics LLC, "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 26.

¹¹⁴ Charles County Government, "2017 Annual Report to the Citizens of Charles County," 17, accessed June 20, 2018, <http://www.charlescountymd.gov/sites/default/files/AnnualReport2017.pdf>.

¹¹⁵ Charles County Government, "2017 Annual Report to the Citizens of Charles County," 17.

¹¹⁶ Ibid, 31.

¹¹⁷ "Featured Properties," Charles County Economic Development Department, accessed June 21, 2018, <http://www.meetcharlescounty.com/featured-properties/>.

¹¹⁸ "Employment Parks-Charles County, MD," Charles County Economic Development Department, accessed June 21, 2018, <http://www.charlescountymd.gov/sites/default/files/ed/BusinessParksMatrix.pdf>.

¹¹⁹ "Healthcare," College of Southern Maryland, 2018.

consultations between specialized physicians and patients with behavioral health and substance abuse issues through televideo platforms.¹²⁰ These initiatives also represent new opportunities for companies in the Healthcare and Social Services industry to collaborate with technology partners to produce new services for customers in Charles County and the surrounding region.

To attract additional health services firms, the Project Team recommends that the county take a multifaceted approach:

- Given the breadth of health-related programs at CSM, the Project Team recommends that the County facilitates partnerships between the college and private industry to best utilize these resources. The County could also provide incentives to businesses that provide educational experiences and/or employment opportunities to students. This not only enriches students' experiences but could create new innovations as students gain knowledge and bring new ideas into the workforce.
- The county should provide resources to facilitate the expansion of the Tele-Psych program and actively recruit health IT firms to work with this innovative technology.
- As residents continue to age, the County could provide additional incentives (mentorship and/or financial) to firms that locate in Charles County, hire county residents, and pledge to serve the needs of an aging population.

7.3 Attracting Entrepreneurial and Retail Firms

As noted in Section 6, retail trade represents the fifth-largest group of out-of-county commuters in Charles County, according to ACS data. Establishments in the Entrepreneurial and Retail Firms designation include specialty food stores; clothing stores; gift, novelty, and souvenir stores; other miscellaneous store retailers; scenic and sightseeing transportation, land; lessors of nonresidential buildings (except mini-warehouses); traveler accommodation; drinking places (alcoholic beverages); and restaurants and other eating places.

Significant retail leakage has been a long-identified issue for Charles County, as indicated in the Strategic Plan.¹²¹ However, such high leakage is not necessarily negative as it can serve as an indicator for growth potential in the industry. Thus, Charles County can view this as an opportunity to nurture an environment that is conducive to a successful retail trade industry.

A combination of a high-income consumer base, low cost of living, and employment in industries with a high telework potential position Charles County for growth in the retail industry. The county can do a number of things to support this industry, including making improvements in the transportation infrastructure, creating denser inner cores with high walkability, and increasing awareness about Charles County as a tourism destination.

¹²⁰ Charles County Government, "2017 Annual Report to the Citizens of Charles County," 17.

¹²¹ Garner Economics and Development Counsellors International, "A Proactive Approach to Shaping the Economic Future of Charles County, Maryland," 29, accessed June 14, 2018, http://www.meetcharlescounty.com/clientuploads/directory/downloads/download_files/CharlesCounty_final_051316.pdf.

Demographically, as illustrated in Section 3.2, the potential workforce for the retail industry is favorable when compared to the surrounding areas. Charles County has a larger portion of residents being both under the age of 25 and, on average, have less formal education than the rest of the Washington, D.C. MSA. While teleworking in this industry is relatively rare, retail trade firms can be the primary beneficiary of industries that do telework. For example, teleworkers may choose to work from coffee houses or shared workspaces as opposed to working from their home.

Charles County has been proactive about enticing businesses to move to the county. Even though licensing for businesses appears to be lighter than surrounding counties, the county has a host of resources to support business development.^{122,123} The county has already taken steps to improve the retail and business environment, which includes planning of the Waldorf Urban Redevelopment Corridor, a transit-oriented and mixed-use development that aims to enhance the area's appeal as a walkable urban center. The first phase of the project, Waldorf Center, includes 130,000 square feet of commercial space, residential housing, office space, and event facilities in close proximity to a transit station.¹²⁴ Similarly, the planned Waldorf Station in north Waldorf will offer 500,000 square feet of combined retail and commercial space, as well as 800 residential housing units.¹²⁵ As malls and strip malls are quickly becoming the retail structure of the past, these types of mixed-use developments align well with growing demand for experiential retail establishments and pedestrian-friendly outdoor centers.¹²⁶

These new urban centers would also provide an ideal location to house new entrepreneurial startups, or potentially even a business incubator. A central location in newly-constructed office or retail spaces in one of the county's planned urban centers would provide abundant access to young professionals and families, as well as tourists visiting the area. In sum, to attract retail firms and entrepreneurs into Charles County, the Project Team recommends that:

- The County continues to support mixed-use developments currently underway to capture demand for experiential retail establishments and pedestrian-friendly outdoor centers; and

¹²² Maryland Open for Business, "Maryland Business Licenses," accessed June 20, 2018, <https://commerce.knack.com/maryland-business-licenses#countylicenses/>

¹²³ Charles County Economic Development Department, "Business Support," accessed June 20, 2018, <http://www.meetcharlescounty.com/business-support/>

¹²⁴ Charles County Economic Development Department, "Waldorf Urban Redevelopment Corridor," 1-2, accessed June 25, 2018, http://www.meetcharlescounty.com/clientuploads/directory/downloads/download_files/WURC%20Brochure%20FINAL.pdf.

¹²⁵ "Waldorf North Redevelopment," Charles County Economic Development Department, accessed June 25, 2018, <http://www.meetcharlescounty.com/WaldorfNorth>.

¹²⁶ "The Rise of Experiential Retail | NAIOP," NAIOP Commercial Real Estate Development Association, accessed June 20, 2018, <https://www.naiop.org/en/Magazine/2016/Summer-2016/Business-Trends/The-Rise-of-Experiential-Retail.aspx>.

- The Charles County Economic Development Department establishes or partners with a local incubator in Waldorf Center or Waldorf Station to help attract and support a variety of new businesses in an easily-accessible environment.¹²⁷

Combined, these recommended actions help to ensure that the types of businesses entering the space will meet not only today's business demands, but also the demands of the future.

7.4 Attracting R&D, Engineering, and Computing Firms

Industries under this designation include semiconductor and other electronic component manufacturing; navigational, measuring, electromedical, and control instruments manufacturing; medical equipment and supplies manufacturing; software publishers; data processing, hosting, and related services; internet publishing and broadcasting and web search portals; architectural, engineering, and related services; computer systems design and related services; and scientific research and development services.

In terms of commuting patterns, as indicated in Figure 25, of the roughly 7,000 workers employed in the Professional, Scientific, and Technical Services industry, over 5,400 are out-of-county commuters. On a percentage basis, the number of workers in this industry is higher than the U.S. average, capturing 14.2 percent and 11.2 percent of the workforce, respectively.¹²⁸ Due to the nature of the work involved, many of the same factors (e.g., location, cost of living, ease of doing business) that make Charles County attractive to the Federal Contracting and Professional and Business Services industries may also apply to this industry.

While Charles County has a tech incubator and provides information on a multitude of funding sources for future businesses, the county can do more. The approaches outlined in 7.1 to increase business awareness and provide business incentives would also be effective tools for attracting R&D, Engineering, and Computing firms to the area. In line with the actions listed above, the Project Team recommends that the County expands their "Key Industries" website to include:

- Demographic highlights to show that Charles County has the highly-skilled and highly-educated workers demanded in the R&D, Engineering, and Computing industries;
- Advertisements that showcase mixed-use developments such as the Waldorf Center and Waldorf Station that offer prime locations for businesses that are considering moving to the area; and
- Comparative data on business costs between Washington, D.C. and Charles County that show, for example, average rental costs per square foot of office space in both locations. As phases of the mixed-use urban centers are completed, additional amenities (such as increased transportation options) should be advertised as well.

¹²⁷ Charles County Economic Development Department, "Waldorf Urban Redevelopment Corridor," accessed June 20, 2018, http://www.meetcharlescounty.com/clientuploads/On%20Page%20Brochures/WURC_Brochure.pdf

¹²⁸ U.S. Census Bureau, American Community Survey, 2012-2016 American Community Survey 5-Year Estimates, Series DP03, generated by RESI staff using American FactFinder, accessed June 20, 2018, <http://factfinder.census.gov>.

Through the steps above, the benefits businesses gain by relocating or starting their firm in Charles County can be emphasized.

In addition to the specific strategies discussed above, it is recommended that the County better utilize resources available through platforms such as the Maryland Workforce Exchange (MWE) to more directly connect commuters to job opportunities within Charles County. The MWE is a website maintained by the Maryland Department of Labor, Licensing, and Regulation that provides information for job candidates and employers, in addition to providing labor market information.¹²⁹ The County could consider linking the MWE to its website or maintaining its own version. This platform would allow commuters to see job openings in the county and would provide employers with a focused applicant pool as well as a consolidated area to learn about local economic trends.

8.0 Conclusion

Charles County has been growing its economy at a faster rate than the Washington, D.C. metro area since the 1980s, and current projections from the Maryland Department of Planning indicate that this will continue through at least 2040.¹³⁰ The county benefits from a lower cost of living than the surrounding area and has strong employment potential in a number of industries, including health care and business services. However, the majority of county residents work outside of Charles County. To grow the county's economy to its fullest potential, the county has begun to identify strategies that entice businesses to move into Charles County and take advantage of the area's skilled resident workforce.

The Project Team used a literature review, survey, and in-depth analysis of U.S. Census data to explore the commuting and employment patterns of Charles County residents, which industries and occupations employ the greatest proportions of commuters, and the education and skills of the county's residents. Both the survey and the analysis of U.S. Census data found that Public Administration; Health Care and Social Assistance; and Professional, Scientific, and Technical Services were the industries in which commuters were most frequently employed. If Charles County can induce businesses in these target areas to open in the county, it is likely they will have little trouble filling their labor force needs.

The overwhelming majority of survey respondents indicated they worked outside the county because of higher wages or better opportunities. Additionally, as discussed in Section 6, the majority of residents employed outside of the county have a commute between 30 and 60 minutes, with several industry and occupational groups having commutes that exceed 60 minutes. Increasing employment opportunities within Charles County will likely entice residents in these industries and occupations to work within the county, as research has suggested

¹²⁹ "Maryland Workforce Exchange," Maryland Department of Labor, Licensing, and Regulation, accessed June 26, 2018, <https://mwejobs.maryland.gov/vosnet/Default.aspx>.

¹³⁰ Maryland Department of Planning, "Projections to 2040: Total Jobs by Place of Work by Jurisdiction, Per Capita Personal Income for Maryland's Jurisdictions," 1, accessed June 12, 2017, http://planning.maryland.gov/msdc/s3_projection.shtml.

shorter commutes improve worker retention and workplace satisfaction.¹³¹ Given the number of survey respondents who indicated they lived in Charles County for quality of life reasons—including time with family—a shorter commute would allow them to enjoy this aspect of the county more.

Furthermore, the Project Team identified several strategies that Charles County can take to attract additional businesses to the county. The team recommends that Charles County:

- Leverage partnerships between emerging and established medical firms and the Health Sciences Division at the College of Southern Maryland, Charles County to cultivate an attractive business environment for new health services firms. For example, the county could advertise itself as a healthcare innovator by highlighting local initiatives, such as the recently-unveiled Tele-Psych Program. Furthermore, this model could be expanded upon as a vehicle to address unmet healthcare demand within the county and beyond.
- Improve the transportation infrastructure, create denser inner cores with high walkability, and increase awareness about Charles County as a tourism destination to attract and strengthen entrepreneurial and retail industries in the county. Examples of these projects are already underway within the county, such as the Waldorf Center within the Waldorf Urban Redevelopment Center and the Waldorf Station project in north Waldorf. The Project Team recommends that the County continues to support the mixed-use developments currently underway to capture demand for experiential retail establishments and pedestrian-friendly outdoor centers, and considers establishing or partnering with a local incubator in Waldorf Center or Waldorf Station to help attract and support a variety of new businesses in an easily-accessible environment.
- Highlight Charles County's proximity to federal clients, including those in Washington, D.C. and regional military installations, and the benefit of lower costs of doing business. It is recommended that the County highlight the "Business Costs" page of the Charles County Economic Development Department website to increase visibility of these benefits to businesses that are considering relocating or establishing within the county.¹³² Additionally, residents' loyalty to the area can be advertised as evidence of a stable workforce for businesses who choose to locate in the Charles County. The large numbers of workers enduring long commutes to live in the county presents an opportunity for businesses to employ these workers locally. This is a mutually-beneficial relationship, as research has shown that short commute times enhance workers' quality of life and reduce employee turnover and associated costs to employers.
- Utilize resources available through platforms such as the Maryland Workforce Exchange (MWE) to connect commuters to job opportunities in the county. The MWE is a website maintained by the Maryland Department of Labor, Licensing, and Regulation that provides information for job candidates and employers, in addition to providing labor

¹³¹ Sullivan, "How Commute Issues Can Dramatically Impact Employee Retention."

¹³² "Business Costs," Charles County Economic Development Department.

market information.¹³³ The county could consider linking the MWE to its website or maintaining its own version. This platform would allow commuters to see job openings in the county and would provide employers with an applicant pool as well as a consolidated area to learn about local economic trends.

- Increase the use of more sophisticated data analytics for business attraction. Similar to the work related to the MWE for employers and commuters, the County could utilize an online platform to show the skills and certifications of job seekers. This information is already included in the MWE and could be added to the “Workforce” page of the Charles County Economic Development Department website to showcase the potential workforce to businesses looking to relocate.¹³⁴

¹³³ “Maryland Workforce Exchange,” Maryland Department of Labor, Licensing, and Regulation.

¹³⁴ “Workforce,” Charles County Economic Development Department.

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Appendix A—Detailed Methodology

A.1 Detailed Survey Methodology

To implement the survey, the Project Team first obtained a random, dual-frame sample of phone numbers in Charles County from Survey Sampling, Inc. The data set obtained allowed the Project Team to survey approximately 80 percent of cell phones in Charles County, since Survey Sampling, Inc. captures the billing address for actively used cell phones, instead of just relying on phones purchased within the county or telephone numbers assigned in the county. Landlines were also included in the survey.

The team created a draft survey in collaboration with the Client. After finalizing the survey questions, the team conducted a pre-test of the survey to ensure that the survey could be conducted within 10 minutes and would be generally understood as intended by potential respondents.

The Project Team conducted the survey by calling during daytime, evening, and weekend hours to cover a variety of workers and professions. Up to four attempts were made with each number to establish contact with a potential respondent. Respondents were presented questions as open-ended, with answers then being categorized by the survey administrator into pre-defined categories if applicable.

As seen in Figure 39, the Project Team contacted over 26,000 unique phone numbers. In total, the team conducted 55,272 dialings.

Figure 39: Status of Phone Survey Attempts

Survey Status	Count
No Answer	2,382
Busy	2,501
Answering Machine	11,496
Business or Government Number	726
Not Working	1,730
Requested a Call Back	373
Fax	291
Refused to Take Survey	3,168
Language Barrier	139
Ended Survey Before Completing	66
Not Employed	483
Employed in Charles County	249
Under the age of 18	89
Does not Live in Charles County	2,020
Completed Survey	556
Total Attempted	26,269

Sources: RESI, Schaefer Center for Public Policy

As seen in Figure 39, the team obtained over 550 completed responses between September 2017 and May 2018. Respondents were only able to complete the full survey if they answered that they were employed outside of Charles County for pay at any job.

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Figure 40, below, shows the location of survey respondents by zip code. Notably, the majority of survey respondents came from the major cities of Waldorf and La Plata.

Figure 40: Residence in Charles County by Zip Code

Response	Frequency	Percent
20601 Waldorf	95	17.0%
20602 Waldorf	95	17.0%
20603 Waldorf	129	23.1%
20604 Waldorf	1	0.2%
20607 Accokeek	3	0.5%
20612 Benedict	1	0.2%
20613 Brandywine	14	2.5%
20616 Bryans Road	17	3.0%
20617 Bryantown	3	0.5%
20622 Charlotte Hall	5	0.9%
20625 Cobb Island	4	0.7%
20632 Faulkner	4	0.7%
20637 Hughesville	27	4.8%
20640 Indian Head	11	2.0%
20645 Issue	4	0.7%
20646 La Plata	66	11.8%
20658 Marbury	4	0.7%
20659 Mechanicsville	5	0.9%
20661 Mount Victoria	1	0.2%
20662 Nanjemoy	6	1.1%
20664 Newburg	3	0.5%
20675 Pomfret	2	0.4%
20677 Port Tobacco	10	1.8%
20693 Welcome	3	0.5%
20695 White Plains	45	8.1%
Refused to Answer	1	0.2%
Total	559	100%

Sources: RESI, Schaefer Center for Public Policy

For further information, the Project Team also tabulated the Zip Code distribution of all respondents who indicated that they were employed, regardless of whether or not their employer is located in Charles County. This information is found below.

Figure 41: Respondents by Zip Code Regardless of Employer Location

Zip Code	Frequency	Percent
20601 Waldorf	131	15.34
20602 Waldorf	146	17.1
20603 Waldorf	166	19.44
20604 Waldorf	3	0.35
20607 Accokeek	4	0.47
20611 Bel Alton	7	0.82
20612 Benedict	1	0.12
20613 Brandywine	17	1.99
20616 Bryans Road	23	2.69
20617 Bryantown	5	0.59
20622 Charlotte Hall	7	0.82
20625 Cobb Island	6	0.7
20632 Faulkner	6	0.7
20637 Hughesville	35	4.1
20640 Indian Head	26	3.04
20645 Issue	7	0.82
20646 La Plata	136	15.93
20658 Marbury	7	0.82
20659 Mechanicsville	8	0.94
20661 Mount Victoria	1	0.12
20662 Nanjemoy	9	1.05
20664 Newburg	8	0.94
20675 Pomfret	5	0.59
20677 Port Tobacco	17	1.99
20693 Welcome	3	0.35
20695 White Plains	55	6.44
Refused to Answer	15	1.76
Total	854	100

Sources: RESI, Schaefer Center for Public Policy

A.2 U.S. Census American Community Survey Data Analysis Methodology

In addition to conducting the phone survey, the Project Team also conducted supplemental analysis of data from the U.S. Census American Community Survey data to better understand the characteristics of individuals who live in Charles County and work outside the county. To conduct the analysis, the team accessed individual responses to the ACS data as stored in

IPUMS (Integrated Public Use Microdata Series), an online repository for U.S. Census data and other large datasets. The team downloaded data for all residents of Charles County who commute outside of the county for work. The team used a five-year dataset, which means the data contains responses from 2012, 2013, 2014, 2015, and 2016. Although this means that some responses are older, it also smooths the data and allows for higher confidence in underlying trends observed and reported on.

Appendix B—Charles County Commuter Survey Questions

All adults residing in Charles County (at least 18 years of age) who are employed outside of Charles County for pay at any job are eligible to participate. The survey will take approximately 10 minutes to complete.

1. Are you 18 years of age or older?
Yes [If YES, go to Q2]
No [If NO, go to Q1a]
 - a. Is anyone at home 18 years of age or older?
Yes [if YES, go to Intro for adult who comes to phone, or call back]
No [If NO, end of survey]
2. Do you currently live in Charles County?
Yes [If YES, go to Q3]
No [If NO, end of survey]

3. In which zip code do you reside?
[Field Code: Select one]

Show list of Charles County Zip Codes
[If Refused – Continue with Survey]

4. What is the **MAIN** reason you have decided to live in Charles County?
[Field Code: Do not read list. PROBE for one, MAIN reason for living in Charles County]
 - a. Affordable to live here/ Cost of living
 - b. Sense of community/place
 - c. Close to major cities / Proximity
 - d. Education system
 - e. Been here all my life / or since childhood.
 - f. Raising family
 - g. Recreational activities
 - h. Retirement
 - i. Other (Specify Reason)
5. Are you currently employed at all – either full time or part time?
(NOTE: includes part-time, self-employed, active duty military, farm workers/owners, etc.
Respondent must be paid for their work)?
Yes [If YES, ask Q5a]
No [If NO, end of survey]

- a. Is your employer located outside of Charles County?
(Note: this could be any of their employers, if they have more than one job.)

Yes [If YES, ask Q6]

No [If NO, end of survey]

6. Is any of the work that you do in Charles County?

(NOTE: this is where the respondent actually does their work. For instance, a contractor could do work in many different locations.)

- a. All work WITHIN Charles County [Go to Q8]
- b. Some work in, and some outside of Charles County [Go to Q7]
- c. All work OUTSIDE of Charles County [Go to Q7]

7. What areas do you work in outside of Charles County? (select all that apply)

- a. St. Mary's County, MD
- b. Anne Arundel County, MD
- c. Prince George's County, MD
- d. Calvert County, MD
- e. Another Maryland county
- f. Washington, D.C.
- g. Northern Virginia (Arlington, Alexandria, Fairfax, Fairfax County, Prince William County, or Loudon County)
- h. King George County Area (King George, Dahlgren, Stafford County, Spotsylvania County, or Fredricksburg)
- i. Some other location not mentioned

8. What is the name of your current employer (s)?

Enter Verbatim Response: _____

[If completed, go to Q10]

[If REFUSED, go to Q9]

9. What industry or industries do you work in?

[Field Code: Do Not Read List: listen to answer and probe for clarification)

- a. Agriculture, Forestry, Fishing and Hunting
- b. Mining, Quarrying, and Oil and Gas Extraction
- c. Utilities
- d. Construction
- e. Federal Contracting
- f. Manufacturing
- g. Wholesale Trade
- h. Retail Trade
- i. Transportation and Warehousing
- j. Information
- k. Finance and Insurance

- l. Real Estate and Rental and Leasing
 - m. Professional, Scientific, and Technical Services
 - n. Management of Companies and Enterprises
 - o. Administrative and Support and Waste Management and Remediation Services
 - p. Educational Services
 - q. Health Care and Social Assistance
 - r. Arts, Entertainment, and Recreation
 - s. Accommodation and Food Services
 - t. Other Services (except Public Administration)
 - u. Public Administration
 - i. Local
 - ii. State
 - iii. Federal
10. What is/are your current job(s)? (enter information verbatim)
11. Which of the following occupation group(s) sounds like your current job(s)? [READ LIST: Select all that apply]
- a. Management occupations
 - b. Business and financial operations occupations
 - c. Computer and mathematical occupations
 - d. Architecture and engineering occupations
 - e. Life, physical, and social science occupations
 - f. Community and social service occupations
 - g. Legal occupations
 - h. Education, training, and library occupations
 - i. Arts, design, entertainment, sports, and media occupations
 - j. Healthcare practitioners and technical occupations
 - k. Healthcare support occupations
 - l. Protective service occupations
 - m. Food preparation and serving related occupations
 - n. Building and grounds cleaning and maintenance occupations
 - o. Personal care and service occupations
 - p. Sales and related occupations
 - q. Office and administrative support occupations
 - r. Farming, fishing, and forestry occupations
 - s. Construction and extraction occupations
 - t. Installation, maintenance, and repair occupations
 - u. Production occupations
 - v. Transportation and material moving occupations

12. What is the **MAIN** reason you work outside of Charles County?

[Field Code: Do not read list. PROBE for one, MAIN reason for working outside of Charles County]

- a. Salary and benefits
- b. Employment opportunities
- c. Career advancement
- d. Diversity of job market
- e. Networking opportunities
- f. Local culture (happy hour, lunchtime concerts etc.)
- g. Working in a metropolitan area
- h. Flexibility of hours
- i. Short commute
- j. Diversity
- k. Option to telecommute or work from home.
- l. Other _____

13. Do you telecommute or work from a remote location for any of your work?

14. Do any of your current jobs require any special licenses or certifications?

Yes [If YES, ask Q14a]

No (If NO, go to Q15)

a. What type of license or certification?

(NOTE: listen to answer, SELECT ALL THAT APPLY. Probe for additional responses.)

- i. Medical
- ii. Teaching
- iii. Business
- iv. Project Management
- v. Commercial Driver's License
- vi. Computer
- vii. Information Technology
- viii. Legal
- ix. Sales
- x. Skilled Trades
- xi. Social Worker
- xii. Real Estate
- xiii. Other

15. Have you ever thought about starting your own business in Charles County?

- a. Yes [if YES, ask Q16]
- b. No [if NO, go to Q17]

16. If you are interested in someone from Charles County contacting you about starting your own business in Charles County, please provide your name and email address _____.

(NOTE: Reassure respondent that this information will not be linked with their responses. If requested, Lucretia Freeman-Buster, the Charles County Chief of Business Development will be contacting the individual)

17. What is the highest degree or level of school you have completed?

[Field Code: Do not read list. Probe for highest degree or level of school.]

- a. Some schooling, no high school diploma
- b. High school graduate, diploma or the equivalent (for example: GED)
- c. Some college credit, no degree
- d. Associate degree or trade/technical/vocational training
- e. Bachelor's degree
- f. Master's degree
- g. Professional/doctorate degree
- h. Prefer not to respond

18. What is your household gross annual income?

[Field Code: Do not read list. Probe for total combined household income from all sources.]

- a. Less than \$35,000
- b. \$35,000 to \$49,999
- c. \$50,000 to \$74,999
- d. \$75,000 to \$99,999
- e. \$100,000 to \$149,999
- f. \$150,000 to \$199,999
- g. \$200,000 or more
- h. Don't Know
- i. Prefer not to respond

19. How old were you on your last birthday?

[Field Code - Don't read list, choose correct response.]

- a. 18-24 years old
- b. 25-34 years old
- c. 35-44 years old
- d. 45-54 years old
- e. 55-64 years old
- f. 65-74 years old
- g. 75 years or older
- h. Prefer not to respond

20. Would you describe yourself as (select all that apply).

- a. White
- b. Black or African American
- c. Native American or American Indian
- d. Asian / Pacific Islander
- e. Other
- f. Prefer not to respond

21. Would you describe yourself as Hispanic or Latino?

- a. Yes
- b. No
- c. Prefer not to respond

22. What is your marital status?

- a. Single, never married
- b. Married or living as married
- c. Widowed
- d. Divorced
- e. Separated
- f. Prefer not to respond

23. What is your sex?

- a. Male
- b. Female
- c. Other
- d. Prefer not to respond

Appendix C—Survey Tabulations

This section contains tabulations from the phone survey. Please note that totals may not sum due to rounding.

Figure 42: In which zip code do you reside?

Response	Frequency	Percent
20601 Waldorf	95	16.99
20602 Waldorf	95	16.99
20603 Waldorf	129	23.08
20604 Waldorf	1	0.18
20607 Accokeek	3	0.54
20612 Benedict	1	0.18
20613 Brandywine	14	2.5
20616 Bryans Road	17	3.04
20617 Bryantown	3	0.54
20622 Charlotte Hall	5	0.89
20625 Cobb Island	4	0.72
20632 Faulkner	4	0.72
20637 Hughesville	27	4.83
20640 Indian Head	11	1.97
20645 Issue	4	0.72
20646 La Plata	66	11.81
20658 Marbury	4	0.72
20659 Mechanicsville	5	0.89
20661 Mount Victoria	1	0.18
20662 Nanjemoy	6	1.07
20664 Newburg	3	0.54
20675 Pomfret	2	0.36
20677 Port Tobacco	10	1.79
20693 Welcome	3	0.54
20695 White Plains	45	8.05
Refused to Answer	1	0.18
Total	559	100

Sources: RESI, Schaefer Center for Public Policy

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Figure 43: What is the MAIN reason you have decided to live in Charles County?

Response	Frequency	Percent
Affordable to live here/ Cost of living	156	27.91
Been here all my life / or since childhood	136	24.33
Close to major cities / Proximity	36	6.44
Education system	48	8.59
Other (Specify Reason)	62	11.09
Raising family	49	8.77
Recreational activities	1	0.18
Retirement	3	0.54
Sense of community/Place	68	12.16
Total	559	100

Sources: RESI, Schaefer Center for Public Policy

Figure 44: Are you currently employed at all – either full time or part time?

Response	Frequency	Percent
Yes	560	100
Total	560	100

Sources: RESI, Schaefer Center for Public Policy

Figure 45: Is any of the work that you do in Charles County?

Response	Frequency	Percent
All work OUTSIDE of Charles County	426	76.07
All work WITHIN Charles County	23	4.11
Some work in, and some outside of Charles County	111	19.82
Total	560	100

Sources: RESI, Schaefer Center for Public Policy

Figure 46: What areas do you work in outside of Charles County?

Response	Frequency	Percent
Anne Arundel County	21	3.95
Calvert County	16	3.01
King George County Area	5	0.94
Northern VA	91	17.11
Other Area	80	15.04
Other MD County	24	4.51
Prince George's County	99	18.61
St. Mary's County	20	3.76
Washington, D.C.	176	33.08
Total	532	100

Sources: RESI, Schaefer Center for Public Policy

Figure 47: What is the name of your current employer (s)?

Response	Frequency	Percent
& PIZZA	1	0.19
22 century technical	1	0.19
AAK Solutions	1	0.19
AARP	1	0.19
AEB Transportation	1	0.19
AT & T	1	0.19
Acosga Sales and Marketing	1	0.19
Action Facility Maintenance	1	0.19
Admiral Elevator	1	0.19
Advanced Plastic Surgery Center	1	0.19
Air Force	1	0.19
Airspan	1	0.19
Allied universal, Wmata	1	0.19
Alutiiq Security	1	0.19
Amazon	1	0.19
American Airline	1	0.19
American Airlines	1	0.19
American Federation OF GOVERNMENT EMPLOYEES	1	0.19
Andrews Air Force Base	1	0.19
Andrews Federal Credit Union	1	0.19
Anne Arundel County Detention facility	1	0.19
Arlington Co. gvernment	1	0.19
Arlington County Government	1	0.19
Arlington Public Schools	1	0.19
Army Review Board Agency	1	0.19
Asston Instutite	1	0.19
Assured consulting solution	1	0.19
Axa Advisors LLC	1	0.19
BAE system	1	0.19
BFW - 169	1	0.19
Beer Company LLC	1	0.19
Blue Line Security Services	1	0.19
Booz Allen Hamilton	1	0.19
Boral a global company	1	0.19
Brand energy	1	0.19
Bridrish Embassy	1	0.19
Bright Beginnings	1	0.19
Brighter Health Network	1	0.19
CACI	1	0.19
CL Russel Group	1	0.19
CR England	1	0.19

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Can't tell you that	1	0.19
Capital Arena --owned by Monumental	1	0.19
Central Intelligenc Agency	1	0.19
Central Wholesalers	1	0.19
Century 21	1	0.19
Century Link	1	0.19
Channel 9	1	0.19
Charles County Hospital	1	0.19
Charles County Schools	1	0.19
Charlotte Home Veterans Home Security	1	0.19
Chesapeake Urology	1	0.19
Cheseldine management consult	1	0.19
Childrens Hosp.	1	0.19
Chose not to answer	1	0.19
College Of Southern Maryland	1	0.19
Conduent	1	0.19
County Contractors, Inc.	1	0.19
Crane Rental	1	0.19
Creative Associates	1	0.19
Crestline Hotel	1	0.19
Crocket	1	0.19
Crosby	1	0.19
DAJI CLEANING SERVICE	1	0.19
DC Government	2	0.38
DC Governmnet	1	0.19
DC Metro Police Dept	1	0.19
DC Public Schools	1	0.19
DC Water	1	0.19
DC dept. of corrections	1	0.19
DCI	1	0.19
DHS Coast Gaurd	1	0.19
DISTRICT PHOTO	1	0.19
DMS techelogy LLC	1	0.19
DO NOT WANT TO LIST	1	0.19
DOD	3	0.56
Davita Health Care	1	0.19
Defense Information System	1	0.19
Defense of Information Agency	1	0.19
Delta airlines	1	0.19
Denison Landscaping	1	0.19
Denny Carry Out	1	0.19
Department of Commerce	1	0.19

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Department of Defense	3	0.56
Department of Education	3	0.56
Department of Health	1	0.19
Department of Homeland security	1	0.19
Department of Labor	1	0.19
Department of Navy	1	0.19
Department of Transportation	1	0.19
Department of commerce	1	0.19
Department of human services	1	0.19
Department of the State	1	0.19
Department of the Treasury	1	0.19
Dept. of Commerce	1	0.19
Dept. of Defense	3	0.56
Dept. of the Navy	1	0.19
Dept. of Commerce	1	0.19
Dept. of Defense	1	0.19
Dept. of Disabilities Services	1	0.19
Dept. of Justice	1	0.19
Dept. of Labor Fed. Govt.	1	0.19
Dept. of commerce	1	0.19
Dept. of education	1	0.19
Dept. of health and Human services	1	0.19
Diane	1	0.19
District of Columbia Fire Dept.	1	0.19
Diversified Protection Corporation	1	0.19
Do not care to answer this question	1	0.19
Do not want to Disclose the location	1	0.19
Do not want to tell.	1	0.19
Dominion engine	1	0.19
Don't want to say	1	0.19
Dyn Corp	1	0.19
Dyn Corp /Military	1	0.19
Dyna Electric	1	0.19
Electric Company	1	0.19
Erie Insurance	1	0.19
Excelon	1	0.19
Exxon	1	0.19
FDIC	1	0.19
FDa	1	0.19
FEDERAL GOV	1	0.19
FOOD AND DRUG ADMINISTRATION	1	0.19
Fairfax County Government	1	0.19

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Fannie Mae	1	0.19
Federal Aviation Admin	1	0.19
Federal Government	18	3.38
Federal Government Employee	1	0.19
Federal Reserve Board of governors	1	0.19
Federal Trade Commission	1	0.19
Federal aviation administration	1	0.19
Federal aviationn administration	1	0.19
Federal government	6	1.13
Fellowship Health Resources	1	0.19
Fema	1	0.19
Fitness Training Center	1	0.19
Fort Washington Medical center	1	0.19
GD	1	0.19
GDIT	1	0.19
Gd Market Place	1	0.19
General Diagnamic	1	0.19
Genetics	1	0.19
George Mason University	1	0.19
Gilbane Bldg. Co.	1	0.19
Government	2	0.38
Government Contractor	1	0.19
Government publishing office	1	0.19
Grays Landing	1	0.19
Hamilton Relay Services	1	0.19
Higher IT Staffing	1	0.19
Home Depo	1	0.19
Home Instead CNA	1	0.19
Homeland Security	3	0.56
I don't want to answer that	1	0.19
I don't want to answer.	1	0.19
IATSE	1	0.19
IBEW Local 26	1	0.19
ICEJV	1	0.19
IRS	2	0.38
Imtao	1	0.19
Ingility Incorp	1	0.19
Intelligent Decisions	1	0.19
International Brother IBEW	1	0.19
JOHNSON CONTROL	1	0.19
Jesus Rodrigiguez	1	0.19
Joco Inc.	1	0.19

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Johnson Products	1	0.19
Jones Maresca and Mcquaed	1	0.19
KG Sheet Metal	1	0.19
Kaiser permant	1	0.19
King H Stone Bus Company	1	0.19
L I Universal	1	0.19
LUx Solutions	1	0.19
Law firm	1	0.19
Lifestyle Blueprints	1	0.19
Local 602	1	0.19
Lockhee Martin	1	0.19
Long and Foster	1	0.19
MVA	1	0.19
Manor DC	1	0.19
Marshalls	1	0.19
Maryland Judiciary	1	0.19
Maxima	1	0.19
Md star Georgetown hospital	1	0.19
Md. Live	1	0.19
MedStar	1	0.19
Medstar	1	0.19
Meltech Corportation	1	0.19
Met Star Shar Medical Group	1	0.19
Metro	1	0.19
Metro Transit	1	0.19
Metropolitan area transit authority	1	0.19
Metropolition Washington Airports Authority	1	0.19
Microsoft	1	0.19
Military--airforce	1	0.19
N/A	1	0.19
NAVSEA	1	0.19
NIH	1	0.19
NMCI	1	0.19
NSWC Dahlgren	1	0.19
Nanny--for a family	1	0.19
National Archives	1	0.19
National Education Association	1	0.19
National Institue of Health	1	0.19
National Labor relations Board	1	0.19
National Science Foundation	1	0.19
National Treasury employees Union	1	0.19
National institutes of Health	1	0.19

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National rural letter carrier assoc.	1	0.19
Navair	1	0.19
Naval Research lab	1	0.19
Navy research lab	1	0.19
Navy- Pentagon	1	0.19
New Horizon Security	1	0.19
Nex Gen pays cash	1	0.19
Noaa	1	0.19
None	1	0.19
Northrup Grumman	1	0.19
Not comfortable giving out that information.	1	0.19
Octapharma Plasma Inc.	1	0.19
Office of Personnel Management	1	0.19
Office of the attorney general	1	0.19
Organizational strategy INC	1	0.19
P G Hospital	1	0.19
PG Department of Corrections	1	0.19
PNC Financial services	1	0.19
PRINCE GEORGE COUNTY PUBLIC SCHOOL	1	0.19
PRMS	1	0.19
Pax River Base	1	0.19
Pepco	1	0.19
Pepsico	1	0.19
Peraton	1	0.19
Phi Beta sigma Fraternity	1	0.19
Postal Services	1	0.19
Precise Systems	1	0.19
Prefer not	1	0.19
Prince Georges Co. School Board	1	0.19
Prince Georges County Government	1	0.19
Prince Georges Public schools	1	0.19
Prince georga county ems department	1	0.19
Proctor and Gamble	1	0.19
Public School System	1	0.19
QSV	1	0.19
R & R Mechanical	1	0.19
RMS services	1	0.19
Rather not say., because I work from home	1	0.19
Rays Deon	1	0.19
Real estate firm	1	0.19
Reed Smith LLP	1	0.19
Refused to answer	1	0.19

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Refused to give name of Employer	1	0.19
Refused.I'd rather not answer that.	1	0.19
Regency Furniture	1	0.19
Regency Management Services	1	0.19
Richard G. Mulberry	1	0.19
Roy Jorgenson	1	0.19
SDAC -	1	0.19
SRI	1	0.19
School board	1	0.19
School system	1	0.19
Sears	1	0.19
Seasons Culinary Services	1	0.19
Security and Exchange Commissions--Federal Government	1	0.19
Security exchange commission	1	0.19
Self Employed	1	0.19
Self employed	1	0.19
Sentra	1	0.19
Service	1	0.19
Smart Site Management	1	0.19
Society for Marketing Professional Services	1	0.19
Southern MD Contractors	1	0.19
St. Mary Hospital Med Star	1	0.19
St. Mary's County Public School	1	0.19
St. Marys County Library	1	0.19
Star learning center	1	0.19
State Farm	1	0.19
State Farm Insurance	1	0.19
State of MD Freelance Court Enterpreter for the	1	0.19
Stephanie (self employed)	1	0.19
Sughrue Mion PLLc	1	0.19
Sunny trucking co.	1	0.19
Superior Iron Works	1	0.19
Synovos	1	0.19
TB & Associates	1	0.19
TWD Contracting company	1	0.19
Taylor AFS	1	0.19
Terminex	1	0.19
The Construction Zone	1	0.19
The District of Columbia	1	0.19
The Liquor Store	1	0.19
The Navy	1	0.19
The Pew Charitable trust	1	0.19

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The Schusterman foundation	1	0.19
The US Navy	1	0.19
The Union	1	0.19
The Washington post	1	0.19
The cheese cake factory	1	0.19
The food and Drug and administration	1	0.19
Titan Gemini Group	1	0.19
Travelers Insurance	1	0.19
Tribles, Inc.	1	0.19
U S Army	1	0.19
U. S government	1	0.19
U.S. Department of Agriculture	1	0.19
U.S. General Services Administration	1	0.19
U.S. Navy	1	0.19
U.S> Federal government--pension benefit guarantee corp.	1	0.19
U.s census bureau	1	0.19
U.s government publisher office	1	0.19
UPS	1	0.19
US ARMY	1	0.19
US Air Force	1	0.19
US Airforce	1	0.19
US Census Bureau	1	0.19
US Coast Guard	1	0.19
US Government	2	0.38
US Navy	2	0.38
US Patent and Trademark	1	0.19
US Postal Service	1	0.19
US customs and border protection	1	0.19
US depart of housing and urban development	1	0.19
US government	1	0.19
US. Censor Bureau	1	0.19
USDA	1	0.19
Uber	1	0.19
United States Navy	1	0.19
United States Patent and trademark office	1	0.19
United States Post Office	1	0.19
United States Senes	1	0.19
United States coast guard	1	0.19
University of MD	1	0.19
University of Maryland	1	0.19
VERIZON	1	0.19
Verizon	1	0.19

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Verterans Asssistant Project	1	0.19
Veteran Affairs	1	0.19
WAYLAND SECURITY	1	0.19
WMATA	2	0.38
WMata	1	0.19
WOULD RATER NOT SAY	1	0.19
Washington Post	1	0.19
Weis Market	1	0.19
Weis markets	1	0.19
Williams and Connelly	1	0.19
WinTec Arrowmaker, Inc. Inc.	1	0.19
Wyndham	1	0.19
airline reporting corporation	1	0.19
alfaomega landscaping	1	0.19
allied	1	0.19
americaN MEDICAL RESPONSE	1	0.19
bank of america	1	0.19
bb&T	1	0.19
bendix	2	0.38
bloop	1	0.19
bob haul llc	1	0.19
bubba	1	0.19
caci	1	0.19
captial airfilter corp.	1	0.19
central Wholesalers	1	0.19
charles co commissioner	1	0.19
charles countygovernment	1	0.19
city of new carrollton	1	0.19
contractor Federal Government- Cate Fox	1	0.19
costco	1	0.19
csra	1	0.19
dc government	1	0.19
dc public schools	1	0.19
dc street car	1	0.19
department of defence	1	0.19
department of defense	1	0.19
department of health and human services	1	0.19
department of the navy	1	0.19
department of the treasury	1	0.19
dept of state	1	0.19
dept of veterans affairs	1	0.19
district goverment	1	0.19

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district of columbia school	1	0.19
do not care to give this information	1	0.19
do not know	1	0.19
do not want to give infor	1	0.19
do not want to say	1	0.19
don't want to	1	0.19
don't what to give that information	1	0.19
dont want to answer	1	0.19
elevator control service	1	0.19
environmental Protection Agency	1	0.19
federal agency	1	0.19
federal dc	1	0.19
federal government	7	1.32
federal government and the airlines	1	0.19
federal highway	1	0.19
fendwick adult landing adult daycare	1	0.19
flawless metals	1	0.19
food service	1	0.19
fort washington auto service	1	0.19
georgia	1	0.19
gigo	1	0.19
globe	1	0.19
government	4	0.75
harristeerter	1	0.19
health care resource network	1	0.19
heffron	1	0.19
hogan lovell	1	0.19
honest soul yoga	1	0.19
hospital	1	0.19
internal revenue	1	0.19
knowledge consulte	1	0.19
mando periperi	1	0.19
me	2	0.38
medstar	1	0.19
melwood	1	0.19
mercury transport	1	0.19
metro	1	0.19
metropolitan	1	0.19
metropolitan Washington airport authority	1	0.19
n/a	2	0.38
narco	1	0.19
nasa	1	0.19

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national safety	1	0.19
no	1	0.19
no answer	1	0.19
none given	1	0.19
nonenone	1	0.19
northop grumman	1	0.19
not answered	1	0.19
not giving info	1	0.19
pepco	1	0.19
pg county public school	1	0.19
precise system	1	0.19
prefer not to say	1	0.19
preferred not to say	1	0.19
prince George community college	1	0.19
prince georges co govmechanic 3	1	0.19
private office	1	0.19
qiktags	1	0.19
quality printers	1	0.19
rather no say	1	0.19
rather not say	3	0.56
rather not sayclerk	1	0.19
raytheon	1	0.19
refuse to answer	2	0.38
refused answer	1	0.19
richmond american homes	1	0.19
rmci	1	0.19
school	1	0.19
schoolteacher	1	0.19
security	1	0.19
self	6	1.13
self college	1	0.19
sensis bureau	1	0.19
skipskip	1	0.19
southern management corporate.	1	0.19
southern maryland hospital center	1	0.19
stars local verture	1	0.19
state of maryland	1	0.19
stateclerk	3	0.56
sure smiles	1	0.19
surf pro	1	0.19
tellerchief engineer	1	0.19
uhaul	1	0.19

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united states navy	1	0.19
us department of state	1	0.19
us government	1	0.19
us.postal service	1	0.19
walker	1	0.19
walsh	1	0.19
will not answer	1	0.19
will not discuss	1	0.19
wmata	1	0.19
would prefer not to say	1	0.19
zazoo	1	0.19
Total	532	100

Sources: RESI, Schaefer Center for Public Policy

Figure 48: What industry or industries do you work in?

Response	Frequency	Percent
Accommodation and Food Services	9	1.92
Administrative and Support and Waste Management and Remediation Services	16	3.42
Agriculture, Forestry, Fishing, and Hunting	1	0.21
Arts, Entertainment, and Recreation	5	1.07
Construction	28	5.98
Educational Services	27	5.77
Federal Contracting	1	0.21
Finance and Insurance	12	2.56
Healthcare and Social Assistance	42	8.97
Information	13	2.78
Manufacturing	9	1.92
Mining, Quarrying, and Oil and Gas Extraction	1	0.21
Other Services (Except Public Administration)	17	3.63
Professional, Scientific, and Technical Services	40	8.55
Public Administration	183	39.1
Public Administration-Federal	2	0.43
Real Estate and Rental and Leasing	7	1.5
Retail Trade	15	3.21
Transportation and Warehousing	24	5.13
Utilities	5	1.07
Wholesale Trade	11	2.35
Total	468	100

Sources: RESI, Schaefer Center for Public Policy

Figure 49: What is/are your current job(s)?

Response	Frequency	Percent
Account Specialist	1	0.18
Acquisition specialist	1	0.18
Admin Officer	1	0.18
Administrative Assistanat	1	0.18
Administrative Assistant	1	0.18
Administrative specialist	1	0.18
Administrator	1	0.18
Agent and Owner	1	0.18
Agent and owner	1	0.18
Agreement Annlist	1	0.18
Air crew flight equipment tecnican	1	0.18
Analyst	1	0.18
Appraiser	1	0.18
Area Manager	1	0.18
Asset Protection Assoc.	1	0.18
Assisant Principial	1	0.18
Assistant Director	1	0.18
Assistant administrator	1	0.18
Assistant manager	1	0.18
Assistant project manager	1	0.18
Associate Director	1	0.18
Associate Director of PR and communications	1	0.18
Attorney	2	0.36
Auto Appraiser	1	0.18
Bailiff	1	0.18
Bartender	1	0.18
Billing specialist	1	0.18
Branch chief	1	0.18
Budget Analysis	1	0.18
Budget Analyst	1	0.18
Budget Anaylsis	1	0.18
Budjeet annalyst	1	0.18
Building Manager	1	0.18
Bus Attendant	1	0.18
Bus Operator	2	0.36
Bus operater and security officer	1	0.18
Bus supervisor	1	0.18
Business Analyst	1	0.18
Buyer	1	0.18
COMPLIANT	1	0.18

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CONTRACT SPECIALIST	1	0.18
CPA	1	0.18
Call Center Tester	1	0.18
Campus Security Dispatcher	1	0.18
Carpenter	1	0.18
Case Worker	1	0.18
Cashier	2	0.36
Catering and Conference manager	1	0.18
Chemist	1	0.18
Chief	1	0.18
Chief Building Engineer	1	0.18
Chief Financial Officer	1	0.18
Chief of The Policies in Procedures in Procurement of IRS	1	0.18
Chose not to answer	1	0.18
Circulation Clerk	1	0.18
Civil Engineer	1	0.18
Communication Manager	1	0.18
Comptroller	1	0.18
Computer Programmer	1	0.18
Construction superintendent	1	0.18
Contract manager	1	0.18
Contractor	1	0.18
Contract Officer Representative	1	0.18
Correctional Officer	1	0.18
Custodian	1	0.18
Customer Services Agent	1	0.18
Cyber Security Analyst	1	0.18
DIRECTOR	1	0.18
DO NOT WANT TO LIST	1	0.18
Deliver	1	0.18
Deputy Director	2	0.36
Dialysis Technician	1	0.18
Direct Marketer	1	0.18
Director Admin. branch	1	0.18
Director of Continuity Operation and Emergency Preparedness	1	0.18
Director of Operations	1	0.18
Director of finance	1	0.18
Distributor	1	0.18
Do not want to disclose.	1	0.18
Don't want to say	1	0.18
EMERGENCY MANAGEMENT SPECIALIST	1	0.18
EMT	1	0.18

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ENGINEERING	1	0.18
Economist	1	0.18
Educator	1	0.18
Electrical Apprentices	1	0.18
Electrical Contractor	1	0.18
Electrical Supervisor	1	0.18
Electrician	1	0.18
Electrician	1	0.18
Electronics engineer	1	0.18
Elevator technician	1	0.18
Engineer	5	0.89
Estimator	1	0.18
Executive assistant	1	0.18
Facility Operations	1	0.18
Facility manger	1	0.18
Facilitys Planner	1	0.18
Federal Law Inforcement	1	0.18
Field Manager	1	0.18
Field Rep	1	0.18
Filing assistant	1	0.18
Financial	1	0.18
Financial Management	1	0.18
Financial Manager	2	0.36
Financial consultant	1	0.18
Finanial specilist	1	0.18
Fire Fighter	1	0.18
Firefighter	1	0.18
Fix Radio's and communications cells for the service	1	0.18
Food servicer	1	0.18
Formen	1	0.18
Freelance court interpreter	1	0.18
General Manager	1	0.18
Govenrment Contractor	1	0.18
Grant Management Specialist	1	0.18
Graphics manager	1	0.18
HHS	1	0.18
HR	1	0.18
HR Director	1	0.18
HR Specialist	1	0.18
HVAC Technican	1	0.18
Hair stylist	1	0.18
Head of Fiber optic program	1	0.18

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Help desk analyst	1	0.18
Helper	1	0.18
Home Health Aid	1	0.18
Home health aid	1	0.18
Human resource	1	0.18
Human resources specialist	1	0.18
IT	2	0.36
IT Consultant	1	0.18
IT Manager	1	0.18
IT Security Specialist	1	0.18
IT Specialist	1	0.18
IT manager	1	0.18
IT specialist	1	0.18
ITT Support Specialist	1	0.18
Industry security specialist	1	0.18
Information Specialist	1	0.18
Inspector	1	0.18
Instructutal Assistant	1	0.18
Inventory management	1	0.18
Journey Man Sheet Metal Mechanic	1	0.18
Labaror	1	0.18
Laborer	1	0.18
Lead Contract Specialist	1	0.18
Legal Assistant	1	0.18
Legal Editor	1	0.18
Legal Secretary	1	0.18
Legal occupation	1	0.18
Line Server	1	0.18
Local 24 --heat process installation (hvac)	1	0.18
Logistics	1	0.18
Logistics Officer	1	0.18
MASTER TECHNICATION	1	0.18
Mail Carrier	1	0.18
Maintenance Mechanic	1	0.18
Management Analysis	1	0.18
Management Assistant	1	0.18
Management Technology Assistant	1	0.18
Management and program analyst	1	0.18
Management consultate	1	0.18
Management specialist	1	0.18
Manager	8	1.43
Managing director	1	0.18

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Marketing Director	1	0.18
Marketing associate	1	0.18
Material damage adjuster	1	0.18
Material management	1	0.18
Meat cutter	1	0.18
Mechanic	3	0.54
Mechanic Engineerer	1	0.18
Mechanical Engineering Technician	1	0.18
Medical Assistant, Phelbotomist	1	0.18
Medical Coder	1	0.18
Member Advocate	1	0.18
Mental health therapist	1	0.18
Military HR	1	0.18
NURSE	1	0.18
Nanny	1	0.18
National Representative	1	0.18
Naval architect	1	0.18
Network Engineer	2	0.36
Network engineer	1	0.18
Nurse	2	0.36
Nursing Assistant/Security officer	1	0.18
OWNER	1	0.18
Officer	1	0.18
Officer In Charge Rural Carrier	1	0.18
Oiler	1	0.18
Outside Sales	1	0.18
Owner	1	0.18
Owner/consultant	1	0.18
PCP	1	0.18
PUBLIC HEALTH SERVICE	1	0.18
Paralegal Specialist	1	0.18
Part Maintenance Worker	1	0.18
Patient consultant	1	0.18
Perferred not to answer	1	0.18
Performance Improvement Coordinator	1	0.18
Personal Trainer Group Exercise Instructor	1	0.18
Physical Therapy Tech	1	0.18
Plumber	1	0.18
Plummer	1	0.18
Police	1	0.18
Police officer	1	0.18
Premiere field engineer	1	0.18

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President of Operations	1	0.18
Pretrial law officer	1	0.18
Principal	1	0.18
Processor	1	0.18
Program Analyst	3	0.54
Program Developer	1	0.18
Program Manager	3	0.54
Program Support Specialist	1	0.18
Program anaysit	1	0.18
Program aynalist	1	0.18
Program director	1	0.18
Program manager	3	0.54
Programmer	2	0.36
Project manager	3	0.54
Property manager	1	0.18
Quaility assurance supervisor	1	0.18
REGIONAL SECURITY COORDINATOR	1	0.18
RN	1	0.18
Realtor	1	0.18
Receptionist	1	0.18
Refuse to give the answer	1	0.18
Regional Lead	1	0.18
Regional Director	1	0.18
Regional Visual Merchandise Mgr	1	0.18
Relaitor	1	0.18
Resource Manager	1	0.18
Retail industry specialiity/ high impact consultant	1	0.18
Road technician	1	0.18
Route manager--safety advocate manager	1	0.18
SDO1	1	0.18
STEAMFITTER APPRENTICE	1	0.18
Sales person	2	0.36
School Bus Driver	1	0.18
Secretary	1	0.18
Security Forces	1	0.18
Security Office	1	0.18
Security Officer	2	0.36
Security Supervisor	1	0.18
Securtity Forces	1	0.18
Senior Business Unit Associate	1	0.18
Senior Engineer	1	0.18
Senior Interget architecture	1	0.18

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Senior Program Manager	1	0.18
Senior Programmer Assistant	1	0.18
Senior analyst	1	0.18
Staff Account	1	0.18
Steel Business	1	0.18
Substitute teacher	1	0.18
Superintendent	1	0.18
Supervisor	4	0.72
Supervisor driver	1	0.18
Supervisory service coordinator	1	0.18
Surgical Technican	1	0.18
Systems engineer	2	0.36
Teacher	6	1.07
Technical Assistant	1	0.18
Technical Teacher	1	0.18
Technician	3	0.54
Telecommunication Specialist	1	0.18
Traffic Control technician	1	0.18
Train Operator	1	0.18
Training Coordinator	1	0.18
Training specialist	1	0.18
Truck Driver	2	0.36
Trucker	1	0.18
Underground cable splicer	1	0.18
Union steward	1	0.18
Unit Secretary	1	0.18
Utility Worker	1	0.18
Vice President	1	0.18
Warehouse occupation	1	0.18
ZIT Technician	1	0.18
accontant	1	0.18
adjunct teacher	1	0.18
adjunct professor	1	0.18
admin assisted	1	0.18
admin officer	1	0.18
admin. assistant	2	0.36
administration assistant	1	0.18
administrative assistant	1	0.18
administrative specialist	1	0.18
adminstration support	1	0.18
aired engineering	1	0.18
anaolyist	1	0.18

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assist engineering	1	0.18
assistant adm	1	0.18
assistant attorney general	1	0.18
assistant deli manager	1	0.18
assistant engineer	1	0.18
assistant property management	1	0.18
auto adjuster	1	0.18
auto painter	1	0.18
automotive	1	0.18
banker	1	0.18
bird catchee	1	0.18
budget analysis	2	0.36
budget anaylist	1	0.18
bus operator	1	0.18
bus tech	1	0.18
cartographer	1	0.18
chief customer services	1	0.18
chief engineer	1	0.18
child care provider	1	0.18
civil engineer	1	0.18
clerk	8	1.43
client coordinator	1	0.18
client cordontor	1	0.18
communications	1	0.18
community assistance	1	0.18
compliance analyst	1	0.18
compliance supervisor	1	0.18
computer engineer	1	0.18
computer programer	1	0.18
contract specialist	1	0.18
contracting officer	3	0.54
contractor	1	0.18
cook	1	0.18
correction officer	1	0.18
counselor	1	0.18
customer service representative	1	0.18
cyper security specialist	1	0.18
dairy clerk	1	0.18
denfinse analyst	1	0.18
detention officer	1	0.18
director	1	0.18
director financance	1	0.18

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director of operation	1	0.18
director of student services	1	0.18
do not care to give this information	1	0.18
doctor	2	0.36
don't know	1	0.18
driver	2	0.36
education	1	0.18
educator	1	0.18
electrician	1	0.18
engineer	2	0.36
equipment engeering	1	0.18
equipment special	1	0.18
executive secretary	1	0.18
facility operations specialist	1	0.18
farmer and excavator	1	0.18
federal gov	1	0.18
file clerk	1	0.18
fire figheter med 2	1	0.18
floorman	1	0.18
foreman	1	0.18
forman	2	0.36
guest relations	1	0.18
half/cook	1	0.18
health nurse	1	0.18
healthcae director	1	0.18
help desk position	1	0.18
high votage electrician	1	0.18
home care provider	1	0.18
housing specialist	1	0.18
human resource specialist	1	0.18
hvac	1	0.18
independent contractor	1	0.18
iron worker forman	1	0.18
it specialist	1	0.18
itt	1	0.18
lead consulting	1	0.18
legal	1	0.18
limeman	1	0.18
maint	2	0.36
maintenance worker	1	0.18
management analysis	1	0.18
management sspecialist	1	0.18

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manager	6	1.07
manager moderizion dept	1	0.18
managment	1	0.18
math teacher	1	0.18
mechanic 3	1	0.18
medical	1	0.18
medical assisted	1	0.18
medical coder	1	0.18
medical pfr	1	0.18
mental health counselor	1	0.18
merchandiser	1	0.18
messy	1	0.18
military member	1	0.18
minding your business	1	0.18
mobile mediation	1	0.18
n/a	1	0.18
no answer	1	0.18
no answer	1	0.18
non given	1	0.18
none	1	0.18
none stated	1	0.18
nosey	1	0.18
not giving info	1	0.18
nurse	1	0.18
occational pational mgr	1	0.18
office coordinator	1	0.18
office secretary	1	0.18
operation support technical	1	0.18
operator	1	0.18
owner	4	0.72
painter	1	0.18
part time research assistant	1	0.18
payroll accountant supervisor	1	0.18
pearl legal	1	0.18
personnel security specialist	1	0.18
phlebotomist	1	0.18
physic scientic	1	0.18
pipe welder	1	0.18
police	1	0.18
police officer	2	0.36
prefer not to	1	0.18
preferred not to say	1	0.18

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printer	1	0.18
progam manager	1	0.18
program assistant	1	0.18
program coordinator	1	0.18
program management	1	0.18
program manager	1	0.18
programming analyst	1	0.18
project engineer	1	0.18
project manager	2	0.36
public shaker	1	0.18
ramp agent	1	0.18
rather not say	1	0.18
realator	2	0.36
realtor	1	0.18
receptionist	1	0.18
refuse to answer	1	0.18
refused	2	0.36
refused. I'd rather not answer that.	1	0.18
relationship manager	1	0.18
review officer	1	0.18
sALES	1	0.18
safety specialist	1	0.18
sales manager	1	0.18
sales mgr	1	0.18
sales rep.	1	0.18
salesman	1	0.18
secretary	1	0.18
security	2	0.36
security administrative assistant	1	0.18
security advisor and Pastor	1	0.18
security forces response leader	1	0.18
senior constuled	1	0.18
senior operations advisor	1	0.18
senior project manager	1	0.18
senior security specialist	1	0.18
senior tech. recruiter	1	0.18
senior telecommunication engineer	1	0.18
server	1	0.18
skip	1	0.18
social services represented	1	0.18
special helper	1	0.18
special security officer	1	0.18

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specialist	1	0.18
station manager	1	0.18
store manager	1	0.18
surgical coordnator	1	0.18
teacher	2	0.36
team lead of special project	1	0.18
technician	1	0.18
title clerk	1	0.18
trainer	1	0.18
training instructor	1	0.18
transportation Director	1	0.18
truck driver	3	0.54
truck mechanic	1	0.18
veterans program specialist	1	0.18
vice president	1	0.18
web designer	1	0.18
welder/owner/laborer	1	0.18
wide format specaily (printer)	1	0.18
wood crafter leader	1	0.18
work planner	1	0.18
worker guy	1	0.18
works at power plant-	1	0.18
would not give one	1	0.18
Total	559	100

Sources: RESI, Schaefer Center for Public Policy

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Figure 50: Which of the following occupation group(s) sounds like your current job(s)?

Response	Frequency	Percent
Architecture and Engineering Occupations	32	5.72
Arts, Design, Entertainment, Sports, and Media Occupations	5	0.89
Building and Grounds Cleaning and Maintenance Occupations	8	1.43
Business and Financial Operations Occupations	42	7.51
Community and Social Service Occupations	8	1.43
Computer and Mathematical Occupations	21	3.76
Construction and Extraction Occupations	20	3.58
Education, Training, and Library Occupations	26	4.65
Farming, Fishing, and Forestry Occupations	2	0.36
Food Preparation and Serving Related Occupations	6	1.07
Healthcare Practitioners and Technical Occupations	21	3.76
Healthcare Support Occupations	11	1.97
Installation, Maintenance, and Repair Occupations	18	3.22
Legal Occupations	13	2.33
Life, Physical, and Social Science Occupations	4	0.72
Management Occupations	102	18.25
Office and Administrative Support Occupations	67	11.99
Personal Care and Service Occupations	5	0.89
Production Occupations	12	2.15
Protective Service Occupations	28	5.01
Refused	26	4.65
Sales and Related Occupations	30	5.37
Transportation and Material Moving Occupations	28	5.01
Unknown	24	4.29
Total	559	100

Sources: RESI, Schaefer Center for Public Policy

Figure 51: What is the MAIN reason you work outside of Charles County?

Response	Frequency	Percent
Career advancement	31	5.56
Diversity	1	0.18
Diversity of job market	24	4.3
Employment opportunities	176	31.54
Flexibility of hours	8	1.43
Networking opportunities	6	1.08
Option to telecommute or work from home.	3	0.54
Other	23	4.12
Refused	2	0.36
Salary and benefits	265	47.49
Short commute	8	1.43
Working in a metropolitan area	11	1.97
Total	558	100

Sources: RESI, Schaefer Center for Public Policy

Figure 52: Do you telecommute or work from a remote location for any of your work?

Response	Frequency	Percent
No	327	58.5
Yes	232	41.5
Total	559	100

Sources: RESI, Schaefer Center for Public Policy

Figure 53: Do any of your current jobs require any special licenses or certifications?

Response	Frequency	Percent
No	279	50.0
Yes	279	50.0
Total	558	100

Sources: RESI, Schaefer Center for Public Policy

Figure 54: Have you ever thought about starting your own business in Charles County?

Response	Frequency	Percent	Percent who answered Yes or No
N/A	77	13.75	--
No	357	63.75	73.9
Yes	126	22.5	26.1
Total	560	100	100

Sources: RESI, Schaefer Center for Public Policy

Figure 55: What type of license or certification?

Response	Frequency	Percent
Business	22	8
Commercial Driver's License	28	10.4
Computer	7	2.55
Information Technology	18	6.55
Legal	13	4.73
Medical	31	11.27
Other	56	20.36
Project Management	18	6.55
Real Estate	6	2.18
Refused	7	2.55
Sales	1	0.36
Skilled Trades	48	17.45
Social Worker	2	0.73
Teaching	18	6.55
Total	275	100

Sources: RESI, Schaefer Center for Public Policy

Figure 56: What is the highest degree or level of school you have completed?

Response	Frequency	Percent
Professional/doctorate degree	21	3.8%
Master's degree	96	17.2%
Bachelor's degree	124	22.2%
Associate degree or trade/technical/v.	94	16.9%
Some college credit, no degree	102	18.3%
High school graduate or equivalent	104	18.6%
Some schooling, no high school diploma	9	1.6%
Prefer not to respond	8	1.4%
Total	558	100.0%

Sources: RESI, Schaefer Center for Public Policy

Figure 57: What is your household gross annual income?

Response	Frequency	Percent
\$100,000 to \$149,999	104	18.64
\$150,000 to \$199,999	76	13.62
\$200,000 or more	62	11.11
\$35,000 to \$49,999	36	6.45
\$50,000 to \$74,999	49	8.78
\$75,000 to \$99,999	85	15.23
Don't Know	16	2.87
Less than \$35,000	21	3.76
Prefer not to respond	109	19.53
Total	558	100

Sources: RESI, Schaefer Center for Public Policy

Figure 58: How old were you on your last birthday?

Response	Frequency	Percent
18-24 years old	29	5.2%
25-34 years old	87	15.6%
35-44 years old	92	16.5%
45-54 years old	179	32.1%
55-64 years old	115	20.6%
65-74 years old	27	4.8%
75 years or older	2	0.4%
Prefer not to respond	27	4.8%
Total	558	100.0%

Sources: RESI, Schaefer Center for Public Policy

Figure 59: Would you describe yourself as?

Response	Frequency	Percent
Asian/Pacific Islander	14	2.51
Black or African American	280	50.27
Native American or American Indian	10	1.8
Other	29	5.21
Prefer not to respond	29	5.21
White	195	35.01
Total	557	100

Sources: RESI, Schaefer Center for Public Policy

Figure 60: Would you describe yourself as Hispanic or Latino?

Response	Frequency	Percent
No	519	93.01
Prefer not to respond	21	3.76
Yes	18	3.23
Total	558	100

Sources: RESI, Schaefer Center for Public Policy

Figure 61: What is your marital status?

Response	Frequency	Percent
Divorced	42	7.53
Married or living as married	324	58.06
Prefer not to respond	17	3.05
Separated	9	1.61
Single, never married	155	27.78
Widowed	11	1.97
Total	558	100

Sources: RESI, Schaefer Center for Public Policy

Figure 62: What is your sex?

Response	Freq.	Percent
Female	291	52.2%
Male	263	47.1%
Prefer not to respond	4	0.7%
Total	558	100.0%

Sources: RESI, Schaefer Center for Public Policy

Figure 63: NAICS

Response	Frequency	Percent
115115	1	0.19
221122	3	0.57
221310	1	0.19
236115	5	0.95
236117	2	0.38
236220	2	0.38
238210	5	0.95
238220	4	0.76
238290	2	0.38
238310	1	0.19
238990	3	0.57
311225	1	0.19
323111	1	0.19
325611	1	0.19
333413	1	0.19
333415	1	0.19
334511	2	0.38
336414	1	0.19
339999	1	0.19
423310	1	0.19
423390	1	0.19
423440	1	0.19
423510	1	0.19
423610	2	0.38
423920	1	0.19
424490	1	0.19
424810	1	0.19
425120	1	0.19
442110	1	0.19
444110	1	0.19
445110	4	0.76
445299	1	0.19
445310	1	0.19
447190	1	0.19
452210	3	0.57
452311	1	0.19
454110	1	0.19
481111	4	0.76
484230	2	0.38
485119	7	1.33

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485310	2	0.38
485510	1	0.19
485999	3	0.57
488119	2	0.38
491110	1	0.19
492110	1	0.19
511110	2	0.38
511210	3	0.57
515120	1	0.19
517311	2	0.38
517312	3	0.57
519120	1	0.19
519190	1	0.19
522110	3	0.57
522130	2	0.38
522292	1	0.19
523930	1	0.19
524210	5	0.95
531110	1	0.19
531210	3	0.57
541110	5	0.95
541211	1	0.19
541213	1	0.19
541219	1	0.19
541330	7	1.33
541410	1	0.19
541511	7	1.33
541611	1	0.19
541612	1	0.19
541613	1	0.19
541614	2	0.38
541618	3	0.57
541690	2	0.38
541720	1	0.19
541910	1	0.19
541913	1	0.19
541990	3	0.57
561110	3	0.57
561612	5	0.95
561621	1	0.19
561710	1	0.19
561720	2	0.38

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561730	2	0.38
561990	1	0.19
611110	15	2.84
611310	5	0.95
611420	1	0.19
611430	1	0.19
611699	1	0.19
611710	1	0.19
621111	14	2.65
621210	1	0.19
621399	2	0.38
621493	1	0.19
621610	3	0.57
621910	1	0.19
621991	1	0.19
621999	2	0.38
622110	5	0.95
622210	1	0.19
624120	2	0.38
624190	1	0.19
624410	3	0.57
711310	1	0.19
712190	1	0.19
713210	1	0.19
713940	1	0.19
721110	2	0.38
722110	1	0.19
722320	1	0.19
722511	5	0.95
811121	1	0.19
811490	1	0.19
812112	2	0.38
812921	1	0.19
813311	1	0.19
813410	1	0.19
813910	1	0.19
813930	7	1.33
921120	78	14.77
921130	6	1.14
921190	7	1.33
922110	1	0.19
922120	1	0.19

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922130	2	0.38
922140	3	0.57
922160	1	0.19
923110	4	0.76
923120	4	0.76
923130	1	0.19
923140	3	0.57
924120	1	0.19
925110	1	0.19
925120	1	0.19
926110	7	1.33
926120	8	1.52
926140	3	0.57
926150	4	0.76
927110	1	0.19
928110	42	7.95
928120	4	0.76
999990	4	0.76
Unknown	38	7.2
Refused	41	7.77
Refused	5	0.95
Total	528	100

Sources: RESI, Schaefer Center for Public Policy

Appendix D—Cross Tabulations

D.1 Survey Cross Tabulations

Figure 64: Industry (Y-axis) versus Occupation (X-axis) Cross Tabulation

SOC Codes																											
NAICS Codes	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	Refused	Unknown	Total		
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1		
21	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	1	5		
23	8	1	1	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	7	3	1	1	0	2	27		
31-33	1	0	1	1	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	1	1	0	1	9		
42	2	0	1	0	0	0	0	0	1	1	0	0	0	0	0	2	0	0	1	1	0	1	0	1	11		
44-45	4	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	1	0	1	2	1	0	1	15		
48-9	8	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	11	1	1	24		
51	3	0	1	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	13		
52	2	3	0	0	1	0	0	0	0	0	0	1	0	0	0	3	2	0	0	0	0	0	0	0	12		
53	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	7		
54	8	2	1	8	0	0	3	0	1	0	0	1	0	2	0	2	6	0	0	1	1	1	1	2	40		
56	4	1	0	0	0	0	0	0	0	2	0	4	0	1	0	0	1	0	0	0	0	2	0	1	16		
61	1	0	0	0	1	0	0	16	0	1	0	0	0	0	0	1	4	0	0	1	0	2	0	0	27		
62	3	2	0	1	0	2	1	2	0	12	9	1	0	0	1	0	5	0	0	0	2	0	1	0	42		
71	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	5		
72	2	1	0	0	0	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	0	0	0	1	9		
81	3	0	1	1	0	0	2	0	0	0	0	0	1	0	1	1	2	0	1	1	2	0	0	1	17		
92	39	24	11	11	2	4	6	6	2	2	0	18	0	1	1	6	29	0	3	3	1	3	6	5	183		
Federal Contracting	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Public Admin-Fed	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2		
Total	91	37	17	28	4	7	12	25	4	19	9	28	5	8	4	25	53	2	13	14	10	24	10	18	467		

Sources: RESI, Schaefer Center for Public Policy

Figure 65: Entrepreneurship by Commute Destination

Location	Percent
Anne Arundel County	2.4%
Calvert County	1.6%
King George County area	0.0%
Northern Virginia	21.1%
Other Area	13.0%
Other Maryland County	4.9%
Prince George's County	22.0%
St. Mary's County	1.6%
Washington, DC	33.3%
Total	100.0%

Sources: RESI, Schaefer Center for Public Policy

The correct way to interpret Figure 65 is “33.3 percent of Charles County out-commuting residents who have considered starting their own business work in Washington, DC.”

Figure 66: Entrepreneurship within Destination

Location	Percent
Anne Arundel County	14.3%
Calvert County	12.5%
King George County area	0.0%
Northern Virginia	28.6%
Other Area	20.0%
Other Maryland County	25.0%
Prince George's County	27.3%
St. Mary's County	10.0%
Washington, DC	23.3%
Total	23.1%

Sources: RESI, Schaefer Center for Public Policy

The correct way to interpret Figure 66 is “Of those Charles County residents who commute to Northern Virginia, 28.6 percent have considered starting their own business in Charles County.”

For Figure 67 and Figure 68, please note that these “other” responses are raw output from the survey tool and do not reflect the recoding that the Project Team completed.

Figure 67: “Other” Reasons for Living in Charles County for Residents whose Employer is not Outside Charles County

Response	Frequency
Been there since the Sixties.	1
Born and raised in Charles county.	1
Born here. Lived here all my life.	1
Charles County is where my husband gr..	1
Close to husbands parents	1
Didn't give a reason.	1
Didn't specify a reason	1
EASY TO GET TO WORK	1
Father in law said it was a good plac..	1
Fell in Love w/ a Police Officer.	1
Further away from D.C.	1
Getting to expensive	1
I can not remember why	1
IT WAS REALLY RURUL	1
In Country	1
Just recently moved to Charles County	1
Life long resident.	1
Live and own a business there (DayCar..	1
Lived here all my life	1
Military	1
Moved to charles a long time ago beca..	1
My Husband lived there at that time.	1
My Mom lives there.	1
Non Stated	3
Non stated	2
None Given	2
None Stated	6
None given	1
None stated	3
Relocated many years aGO	1
Social structure and family ties. Nat..	1
To pastor a church	1
Works here--has one of the few high p..	1
at the time there were job opportun..	1
because of my husband job	1
employment	2

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enjoy the county--but the county nee..	1
family is here	1
family lives here	1
family reasons	1
followed parents	1
for employment	1
girlfriend lives here	1
got married and moved here	1
husband stationed here, active duty	1
in the military and station here	1
just happened to be where they ended up	1
just like the town we live in	1
liked the area	1
likes it here	1
low taxes years ago	1
moved here to pastor Bethel Baptist C..	1
moved to Charles county 30 years ago ..	1
no real reason just come here and dec..	1
none given	1
none stated	2
quiet living	1
remind you being at home from north C..	1
safe for my kids	1
this is just the place I came to when..	1
this is were my husband grow up, so I..	1
to be close to family	1
work	1
work on farm	1
works on a farm	1
Total	78

Sources: RESI, Schaefer Center for Public Policy

Figure 68: “Other” Reasons for Living in Charles County for Residents whose Employer is Outside Charles County

Response	Frequency
Affordable housing	1
Always in Charles County, decided to ..	1
Because it is quiet.	1
CLOSE TO ANDREWS AIRFORCE	1
Close to work	1
Closer to DC	1
Cost of living	1
Easy to travel to job for both wife a..	1
Education System, Econinic and they b..	1
Employment	1
From the area and she likes it	1
Got married and moved to Husband's ho..	1
Had to take care of mother	1
Her husband lived here previously	1
I feel safe here	1
I have always like Charles County	1
I have been here for 10 years and at ..	1
I like living here.	1
I like the area	1
I wanted to move to a place that was ..	1
I was born in D.C. , lived in P.G.for..	1
I was in the navy and we moved here	1
It use to be a little remote area but..	1
It was because of the less in propert..	1
It's a good county	1
Job is close by.	1
Life long resident	1
Life long resident and enjoy the quie..	1
Less Crowded	1
Like the area.	1
Locate 26 miles south of DC	1
Military	1
Move with family	1
Moved here while in the US Service	1
My husband has a home in CC.	1
My son lives here	1
Rule environment with direct acces ur..	1

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Safety	1
School system and taxes	1
Taxes are a little cheaper P>G> Co. I..	1
The house was cheap at the time I mov..	1
They were looking for a house and th..	1
This is where my application came thr..	1
Traffic Conjestion	1
We moved here about 13 years ago it w..	1
and lower crime rate	1
because my children mother liked the ..	1
because some of his family lives there	1
because we live in a house with acre	1
both me and my husband worked in the ..	1
buying home	1
came here when i was in service	1
close to DC	1
close to Family	1
close to family	1
close to your job	1
cost of living is cheaper	1
crime was also low	1
decided to get away from DC but Charl..	1
don't like living in the city	1
everything on one level	1
father was in military	1
following family	1
for the job that I had	1
friends in the area	1
girlfriend lived here	1
given property in Charles Co.	1
got married and landed there	1
it is a combination of city life and ..	1
it is peaceful	1
it's quiet, it is not busy and that's..	1
job was here--semi retired now	1
just like it here	1
less conjestion	1
like the suburban living	1
likes house she bought	1

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lots of shopping	1
lower taxes than P>G>	1
military	1
military relocation	1
more rural	1
moved here because my husband lived h..	1
moved here over 30 years ago because ..	1
my dad decided to move here so i just..	1
my family and I thought it was an up ..	1
my parents live here	1
needed a place to rent	1
nice small community, less crime safe..	1
no reason	1
not to be so cluttered	1
not to country - but close to city life	1
originally close to military--became ..	1
over 20 years ago we brought property..	1
peace and quite	1
property taxes are less	1
quality of life	1
quiet area	1
reference through her husband co-worker	1
relaxation and lack of crime	1
relocated in childhood	1
reminds me of fairfax back in the eig..	1
retired here as military	1
retired military--stationed at Andrews	1
rual area trees woods	1
school system isn't what is used to be	1
school system seemed to appear betwee..	1
since of community with not much traf..	1
taxes	1
taxes cheaper	1
teaching job	1
the affordable of houses, good school..	1
this is were my daughter lives, so i ..	1
to be away from the city	1
to be close to relatives	1

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to be near family	1
to get away from DC	1
to move from P.G. where there was dru..	1
to move from Pg county	1
tranquility	1
trying to find a area that was betwee..	1
up and coming area	1
wanted to get out of PG county	1
wanted to get out of the city	1
was close to work when I moved here 3..	1
was in the military, and it was close..	1
wasn't P.G,	1
when I was station in the air force a..	1
when we first moved here it was easy ..	1
wife wanted to live here	1
wife works in DC	1
wife's idea	1
work	2
worked here in the past	1
Total	134

Sources: RESI, Schaefer Center for Public Policy

Figure 69: Commuters who Considered Starting Their Own Business in Charles County by Commute Destination

Industry	Percent
Accommodation and Food Service	37.5%
Administrative and Support and Waste Management and Remediation Services	38.5%
Agriculture, Forestry, Fishing, and Hunting	100.0%
Arts, Entertainment, and Recreation	0.0%
Construction	8.7%
Educational Services	44.0%
Federal Contracting	0.0%
Finance and Insurance	30.0%
Healthcare and Social Assistance	16.7%
Information	27.3%
Manufacturing	22.2%
Mining, Quarrying, and Oil and Gas Extraction	100.0%
Other Services (Except Public Administration)	53.8%
Professional, Scientific, and Technical Services	25.6%
Public Administration	25.2%
Public Administration-Federal	50.0%
Real Estate and Rental and Leasing	33.3%
Retail Trade	26.7%
Transportation and Warehousing	47.1%
Utilities	40.0%
Wholesale Trade	20.0%
Total, All Industries	27.8%

Sources: RESI, Schaefer Center for Public Policy

The correct way to interpret Figure 69 is “Of the Charles County residents who out-commute to work in Utilities, 40 percent have considered starting their own business in Charles County.” However, for this figure, please note that only five industries—Construction; Educational Services; Healthcare and Social Assistance; Public Administration; and Professional, Technical, and Scientific Services—had more than 20 responses in the cross tabulation.

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D.2 ACS Data Cross Tabulations

Figure 70: Out-of-County Commuters by Major Industry and Occupational Group

Two-Digit NAICS	Two-Digit SOCs																								Total
	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55		
11	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	11	0	45	
22	148	92	0	37	0	0	0	0	0	0	0	0	0	20	0	0	9	0	83	83	120	28	0	560	
23	332	187	31	0	0	0	12	0	0	0	0	37	0	13	0	93	240	0	2,025	2,025	43	113	0	3,466	
31-33	124	8	97	152	0	0	0	0	0	0	0	42	0	0	0	39	205	0	104	104	569	34	0	1,413	
42	88	37	0	0	0	0	0	0	0	0	0	0	0	0	0	311	75	0	53	53	16	178	0	831	
44-45	114	58	35	38	0	0	0	0	13	82	11	54	24	0	72	1,805	501	0	38	38	103	222	0	3,288	
48-49	172	91	0	0	0	0	11	20	0	0	0	0	0	0	0	43	574	0	114	114	28	714	0	2,133	
51	252	43	50	41	0	0	0	0	177	0	0	0	0	0	0	63	162	0	0	0	32	21	0	914	
52	317	132	84	22	0	0	12	0	49	0	0	0	0	0	0	123	530	0	0	0	0	0	0	1,269	
53	246	60	0	0	0	0	33	0	0	0	0	0	0	0	0	73	110	0	15	15	66	0	0	614	
54	779	889	1,625	222	87	0	245	18	109	62	0	61	0	39	0	21	957	0	17	17	85	74	0	5,406	
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	
56	148	98	29	0	0	0	0	13	0	176	0	1,105	0	367	0	34	362	0	10	10	0	80	0	2,741	
61	424	122	70	14	27	72	0	1,036	0	64	0	17	24	143	49	0	172	0	72	72	0	137	0	2,515	
62	568	202	94	0	18	326	0	192	0	1,857	806	25	13	20	514	0	1,240	0	27	27	52	131	0	6,108	
71	0	33	0	7	22	0	0	13	27	0	12	97	0	109	121	37	67	0	7	7	28	0	0	609	
72	280	37	0	0	0	0	0	0	0	0	0	0	606	0	0	50	51	0	0	0	0	12	0	1,036	
81	196	85	69	0	0	166	0	0	34	0	15	22	0	34	448	51	534	0	11	11	49	92	0	2,197	
92	2,334	1,696	1,458	332	102	195	338	70	247	205	25	2,593	0	24	21	0	2,666	0	147	147	112	100	569	13,314	
Total	6,537	3,870	3,642	865	256	759	651	1,362	656	2,446	869	4,053	667	769	1,225	2,743	8,466	19	2,723	1,803	1,303	1,947	569	48,200	

Sources: IPUMS, RESI, U.S. Census

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Figure 71: In-County Commuters by Major Industry and Occupational Group

Two-Digit NAICS	Two-Digit SOC																						Total
	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	47	49	51	53	55	
11	57	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	74
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	51	0	0	0	0	77
23	0	12	16	27	0	0	0	0	0	0	0	13	0	48	0	53	85	0	100	26	0	0	380
31-33	478	33	0	12	0	0	0	0	0	0	0	0	0	12	0	15	199	1,248	158	20	158	0	2,333
42	92	59	0	0	0	0	0	0	0	12	0	0	0	0	0	46	68	51	57	391	21	0	797
44-45	91	39	22	0	0	0	0	0	0	0	0	0	0	0	0	160	38	37	0	0	52	0	439
48-49	28	166	21	0	0	0	0	0	77	171	0	0	61	17	0	2,558	949	62	90	89	333	0	4,622
51	43	0	0	0	0	0	0	0	0	0	0	0	0	0	16	35	163	0	16	42	726	0	1,041
52	22	0	0	0	0	0	0	80	73	0	0	0	66	15	0	19	51	0	42	0	0	0	368
53	139	110	96	26	0	0	0	0	0	12	0	0	0	0	0	82	110	0	0	0	0	0	575
54	227	16	21	36	0	0	46	0	0	0	0	0	0	25	0	362	62	0	0	0	0	0	795
55	349	65	211	168	60	28	137	0	215	13	0	33	0	18	0	20	201	39	0	52	50	0	1,659
56	115	13	0	0	0	0	0	0	27	0	70	89	0	461	13	27	142	0	113	18	98	0	1,186
61	330	42	19	15	0	44	0	2,290	0	44	0	52	90	94	83	32	241	0	31	0	118	0	3,525
62	127	83	14	13	42	203	0	200	18	817	572	24	99	72	586	38	722	0	0	0	25	0	3,655
71	0	10	0	0	0	0	0	0	34	0	0	16	15	0	86	0	46	0	12	0	0	0	219
72	230	0	0	0	0	0	0	46	0	0	0	0	1,815	21	18	367	167	0	0	0	29	0	2,693
81	115	43	69	0	0	123	0	0	18	0	0	0	18	54	735	0	197	0	278	75	206	0	1,931
92	335	383	44	209	68	36	39	10	0	124	20	536	0	0	22	19	793	39	21	0	0	522	3,220
Total	2,778	1,074	533	506	170	434	222	2,626	462	1,193	662	763	2,164	837	1,576	3,833	4,260	1,527	918	713	1,816	522	29,589

Sources: IPUMS, RESI, U.S. Census

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