



The Chester County Economy

Background Economic Data for
Restore Chester County

August 2020



This report was prepared by the Chester County Planning Commission, with assistance from the Chester County Economic Development Council, for the Restore Chester County Initiative, which is focused on reopening and restoring Chester County after the COVID-19 pandemic.



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Introduction

With the COVID-19 pandemic causing much of the county's economy to shut down temporarily, Chester County is in unprecedented times. The county's unemployment rate in June, 2020 was 10.0%, which is lower than the national rate of 11.2% but dramatically higher than the county's 3% rate in December. A total of 17,400 residents left the labor force (those employed or actively looking for work) between June 2019 and 2020. The number of unemployed residents increased to 26,600, a 17,900 increase from June 2019. As the economy continues to reopen, these unemployment numbers may drop significantly, but they will most likely remain significantly high, and certain industries, such as restaurants, may take longer to recover.

This report provides pre-COVID local economy data that can be used to guide an Economic Recovery Plan for the county. Much of the data in this report is from 2018 or 2019 and does not account for the impact of COVID. Unfortunately, detailed county data for 2020 will not be available until 2021. The data in this report can be used

to assess the County's economic strengths and weaknesses prior to the pandemic. The information can also be used to inform recommendations for the Economic Recovery Plan and implementation of the county's comprehensive plan, *Landscapes3*. The Chester County Planning Commission plans to provide updated annual economy data, starting in 2021.

Comparing Chester County to other Counties provides a better understanding of how Chester County's economy is performing. Comparisons at both the local, regional, and national level can provide valuable insight to Chester County's unique strengths and challenges. While comparing to national figures can provide general impressions, data at the national level provides averages for counties both similar and vastly different from Chester County. For this reason, data was collected and analyzed for both local counties located in Southeastern Pennsylvania, as well as national counties located outside major northeastern cities with similar attributes to Chester County.

Data

Data used in the report was derived from multiple sources; the Bureau of Labor Statistics, U.S. Census, Bureau of Economic Analysis, ArcGIS Business Analyst, the PA Department of Labor, CoStar, National Establishment Time-Series (NETS), Chester County Assessment Data, Chester County building permits, site visits, Google Maps, and municipal outreach. The most recent available year of data varies by source, ranging between 2017 and 2020, data year is noted in figure titles. Detailed information on data sources can be found on page 86.

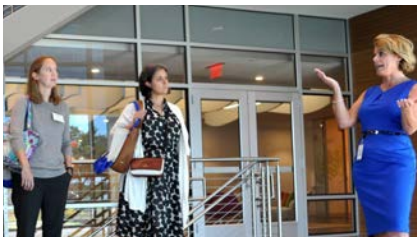
Overview

This report is divided into six chapters that describe the county economy.



1: RESIDENT CHARACTERISTICS

- Chester County, with a current population of 525,000 people, is projected to be the fastest growing county in southeastern PA, with 137,000 more residents by 2045.
- Historically, county residents have a high labor force participation rate of 69%. This will most likely decline due to the pandemic.
- A high share of residents work in professional occupations. This is reflected in the county's high median household income of over \$99,000, the highest in the state.
- About the same number of residents commute out of the county as workers from other places commute into Chester County.



2: EMPLOYMENT CHARACTERISTICS

- In 2018, the county had 277,000 people working in establishments, which is nearly 50,000 more than in 2000. This number likely increases to more than 310,000 people when accounting for employees that are not counted in the federal data such as unincorporated self-employed and proprietors.
- Over 50% of jobs are in the top five industries - health care, retail, professional and technical services, finance and insurance, and manufacturing.
- The average wage of \$71,000 is very high compared to both the region and the United States.
- The county has strong employment shares in agriculture, management of companies and enterprises, finance and insurance, and professional and technical services. Looking at specific industries, the county has a particularly high share of employment in financial investment, greenhouse and nursery production (mushrooms), and electronic shopping.
- Specific industries with employment growth from 2015 to 2018 due to local strengths include software publishing, home health care services, employment services, financial investment, residential mental health services, and scientific research and development.
- Specific industries with employment decline from 2015 to 2018 due to local weaknesses include computer systems design, electronic shopping, and greenhouse and nursery production (mushrooms).



3: BUSINESS CHARACTERISTICS

- The top five enterprises with the most employees are Vanguard, QVC, the County of Chester, Chester County Hospital, and the Federal Government.
- The county has over 15,000 establishments, and 16 of these establishments have over 1,000 employees.



4: GROSS DOMESTIC PRODUCT

- The county's Gross Domestic Product in 2018 was \$42 billion, which is a 56% real growth rate since 2001.
- The top industries that drove Gross Domestic Product were information; professional, scientific, and technical services; and real estate and rental.
- Looking at the change in Gross Domestic Product from 2015 to 2018, agriculture, information, and finance all had positive local factors leading to Gross Domestic Product increases.



5: KEY INDUSTRIAL GROUPS

- Federal statistics and categorizations do not always fit neatly into the way businesses and the public think about industries. The Chester County Economic Development Council has identified nine industry groupings that are not necessarily the largest industries in the county, but they are critical for a variety of reasons. These nine industry groupings are agriculture and food production, education, energy, finance, health care, information technology, life sciences, manufacturing, and tourism and entertainment.
- Of the nine industry clusters, health care, with 28,936 employees, tourism and entertainment, with 24,809 employees, and finance, with 23,164 employees, are the largest.



6: REAL ESTATE CHARACTERISTICS

- Recently, the county has been adding about 1,400 new housing units a year. Although this is a large number of units, it is much less than the 3,000 plus units being added each year in the mid 2000s.
- Over the past few years, single-family detached homes have been less than half of the homes built, with many apartments and townhouses being constructed.
- In 2019 nearly 25% of home sales were affordable at under \$250,000, however the percentage of home sales in this bracket decreased from 2018-2019.
- Non-residential construction steadily increased from 2016 through 2018, but greatly decreased in 2019.
- The county has a significant amount of office space, which has been renting at approximately \$27 per square foot a year. The office vacancy rate in the county is about 10%, which is relatively high within the region.
- Chester County's shopping centers and retail stores serve local community needs and are not generally a draw for those outside of the county. The average rental rate of \$19 per square foot is high for the region, as is the vacancy rate of 5.2%
- The county's industrial space rents for \$8 per square foot, which is very high for the region. The vacancy rate of 6.2% is slightly high for the region.

Economic Strengths and Weaknesses

Overall, Chester County has a very strong economy. This strength will help the county recover from the COVID-19 pandemic.

Strengths

- + The county's economy is very diverse and not overly dependent on any one industry.
- + Strong industries in the county, such as management of companies and enterprises, finance and insurance, and professional and technical services, have high wages and are generally growing industries.
- + Specific higher growth industries, including software publishing, financial investment, and scientific research and development, are high-paying industries. Life sciences, within the scientific research category, has seen particularly strong local growth.
- + The county has a highly-paid and highly-educated workforce that normally has a high workforce participation rate and low unemployment rate.
- + The county is part of the Philadelphia regional economy and has easy connections to major East Coast destinations like New York City and Washington, DC.

Weaknesses

- The real estate sector has higher vacancies and higher costs than nearby counties, and housing costs are high for the Philadelphia region.
- Certain business sectors that have been strong in the past, such as computer system design or electric shopping, have seen declines in employment.
- The county has lower employment in a few industries, such as restaurants and health care, than expected given national norms.
- Office parks along major corridors have fueled growth over the years. The pandemic may lead to dramatically different office use and development patterns.

Using This Document

Consistent features are used throughout the report:

Key facts

Key topic information

Figures

Detailed data on Chester County, local counties (Berks County, Bucks County, Delaware County, Lancaster County, Montgomery County, and Philadelphia County), the Philadelphia-Camden-Delaware MSA, Pennsylvania, and the U.S.



Data findings

Explanations of data and findings

2020 Data

Provides data updated to 2020 when available.

Northeast County Comparison

Information on how Chester County compares to three similar counties located outside of Pennsylvania. Norfolk County, MA, Prince William County, VA, and Morris County, NJ were chosen as comparisons based on proximity to major East Coast cities, population size, and high wealth.







RESIDENT CHARACTERISTICS

This chapter summarizes characteristics of Chester County's residents, who may work in the county or commute out of the county.



Population Change

Since 1970, Chester County has led Southeastern PA's population growth. The county is expected to continue leading in this growth through 2045.

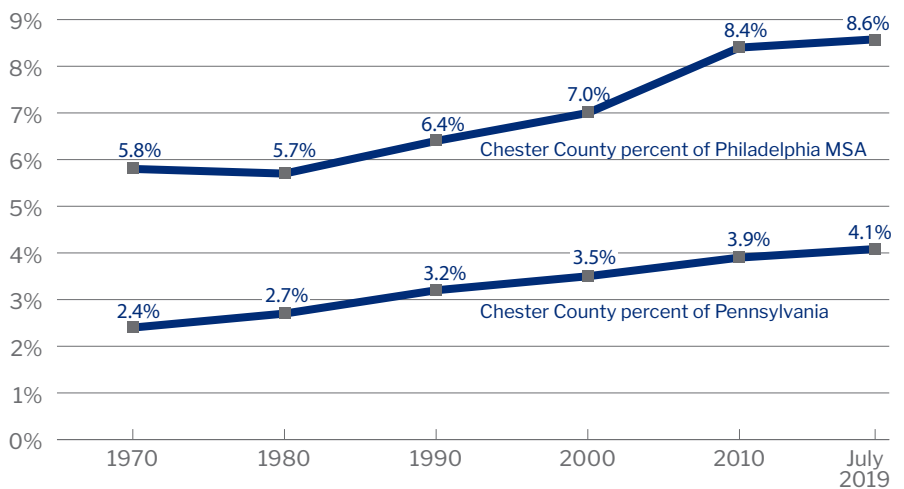
Chester County has grown rapidly, adding nearly 250,000 people since 1970, which is about a 90% growth rate. The growth rate has slowed down recently, but significant growth is still expected. Although current DVRPC forecasts may be a little high, they show the county adding 137,000 people by 2045 for a 26% increase.

▼ **FIGURE 1**
Total Population

	1970	1980	1990	2000	2010	2019
Chester County	277,746	316,660	377,832	435,303	499,797	524,989
Berks County	296,996	312,509	337,812	374,546	411,850	421,164
Bucks County	418,645	479,180	543,091	599,085	625,472	628,270
Delaware County	603,456	555,023	548,033	551,536	559,276	566,747
Lancaster County	320,079	362,346	424,947	471,955	520,156	545,724
Montgomery County	624,080	643,377	680,066	751,335	801,052	830,915
Philadelphia County	1,949,996	1,688,210	1,584,293	1,514,563	1,528,306	1,584,064
Philadelphia MSA	4,817,914	5,547,902	5,892,937	6,188,463	5,971,483	6,102,434
PA	11,800,766	11,864,720	11,903,299	12,280,548	12,666,858	12,801,989
US	203,302,037	226,542,250	249,464,396	282,162,411	309,349,689	328,239,523

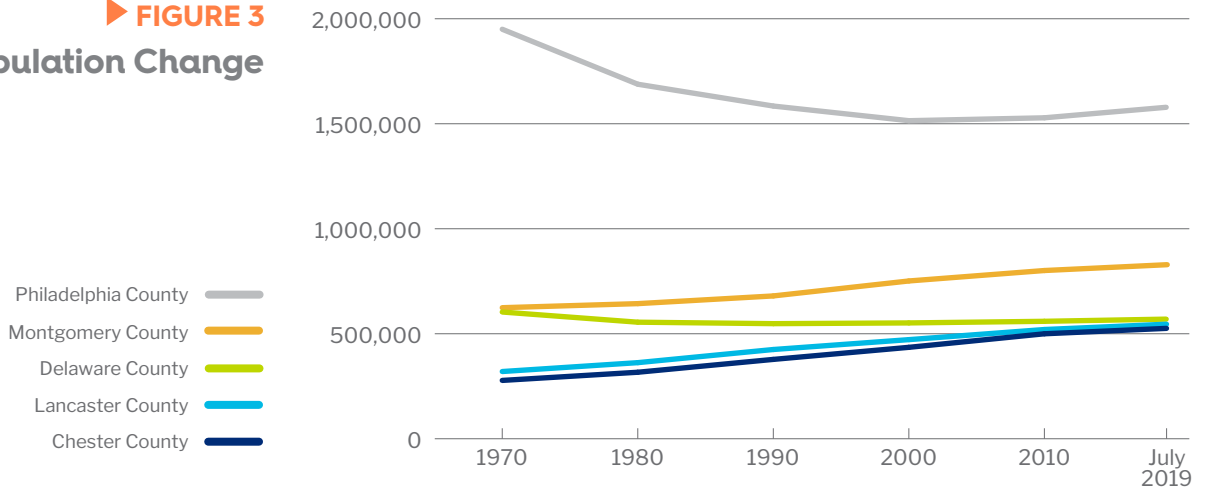
Source: U.S. Census

► **FIGURE 2**
County Percent of MSA and PA Population



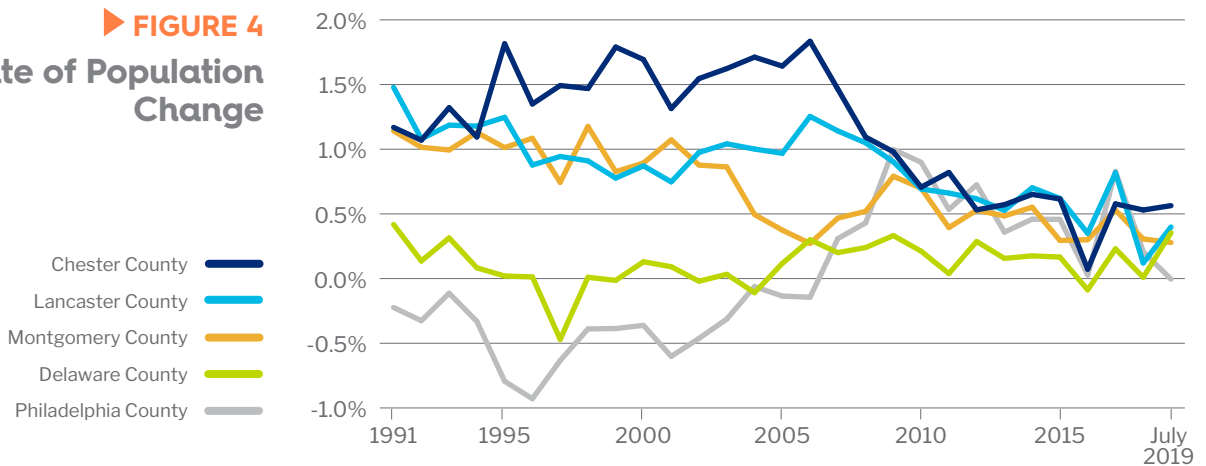
Source: U.S. Census

FIGURE 3
Population Change



Source: U.S. Census

FIGURE 4
Rate of Population Change



Source: U.S. Census

NORTHEAST COUNTY COMPARISON

As a suburban county near a major city, Chester County’s population growth is not unique. Chester County’s population growth fell in the middle of the three northeast comparison counties - with Norfolk County, MA and Morris County, NJ much lower and Prince William County, VA far higher.

Labor Force Participation

Chester County has the highest rate of workforce participation in Southeastern PA.

Chester County has the highest labor force participation rate when compared with the region, state, or nation, which reflects the county's prosperity and job opportunities.

► **FIGURE 5**
Labor Force Participation, 2018

	Population 16 and Older	In Labor Force	Percent In Labor Force
Chester County	417,840	288,783	69.1%
Berks County	337,231	220,904	65.5%
Bucks County	516,676	351,569	68.0%
Delaware County	454,702	294,367	64.7%
Lancaster County	430,023	282,268	65.6%
Montgomery County	670,601	457,856	68.3%
Philadelphia County	1,274,089	778,281	61.1%
Philadelphia MSA	4,925,297	3,212,319	65.2%
PA	10,470,798	6,576,258	62.8%
US	262,185,951	165,907,527	63.3%

Source: U.S. Census

► **FIGURE 6**
Change in Labor Force, 2010-2018

Location	Change in Labor Force	Percent Change in Labor Force	Change in Civilian Employed	Percent Change in Civilian Employed
Chester County	18,776	7.0%	24,339	9.6%
Berks County	5,476	2.5%	16,036	8.3%
Bucks County	903	0.3%	18,320	5.7%
Delaware County	0	0.0%	12,812	4.8%
Lancaster County	10,873	4.0%	21,884	8.8%
Montgomery County	13,623	3.1%	27,364	6.6%
Philadelphia County	68,406	9.6%	116,669	19.5%
Philadelphia MSA	93,692	3.0%	238,858	8.6%
PA	106,250	1.6%	406,155	7.0%
US	8,940,758	5.7%	17,749,237	12.8%

Source: U.S. Census

NORTHEAST COUNTY COMPARISON

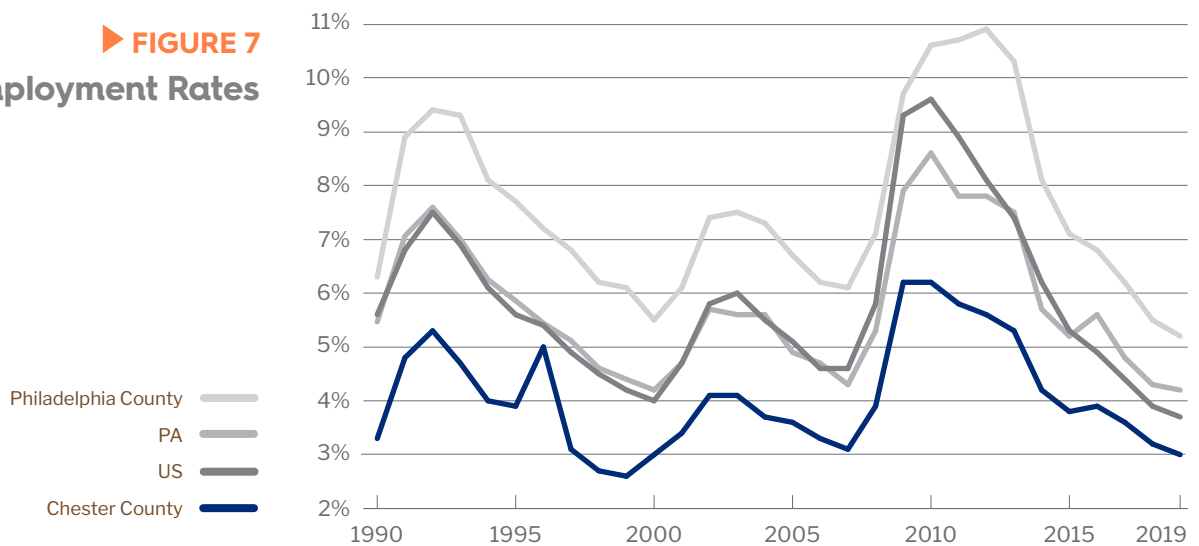
Like Chester County, Morris, Norfolk, and Prince William Counties all have relatively high shares of their population aged 16 and older in the labor force.

Unemployment Rates

Chester County has historically had one of the lowest unemployment rates in the state.

Chester County has consistently had lower unemployment rates than Philadelphia, Pennsylvania, the United States, and its neighboring counties.

FIGURE 7
Unemployment Rates



Source: U.S. Bureau of Labor Statistics

NORTHEAST COUNTY COMPARISON

Like Chester County, Morris, Norfolk, and Prince William Counties have historically had very low unemployment rates, like Chester County. In 2019, these three county's rates dropped well below Chester County's rate.

2020 DATA

Chester County's June, 2020 unemployment rate was 10%, which is a significant increase from December's rate of 3.0%. The nation jumped from 3.4% in December to 11.2% in June.

Occupations

Chester County has high numbers of residents in professional and business occupations.

Chester County has both high numbers of residents and a high share of the region's residents who are working in computer, management, business, and sales occupations. Looking at the share of the region's residents in different occupations, the county has an astounding 50% of those working in agriculture, which is driven primarily by the greenhouse and nursery industry. Chester County also has large shares of residents working in architectural, engineering, life science, physical science, and social science occupations.

► FIGURE 8
Resident Occupations, 2018

NORTHEAST COUNTY COMPARISON

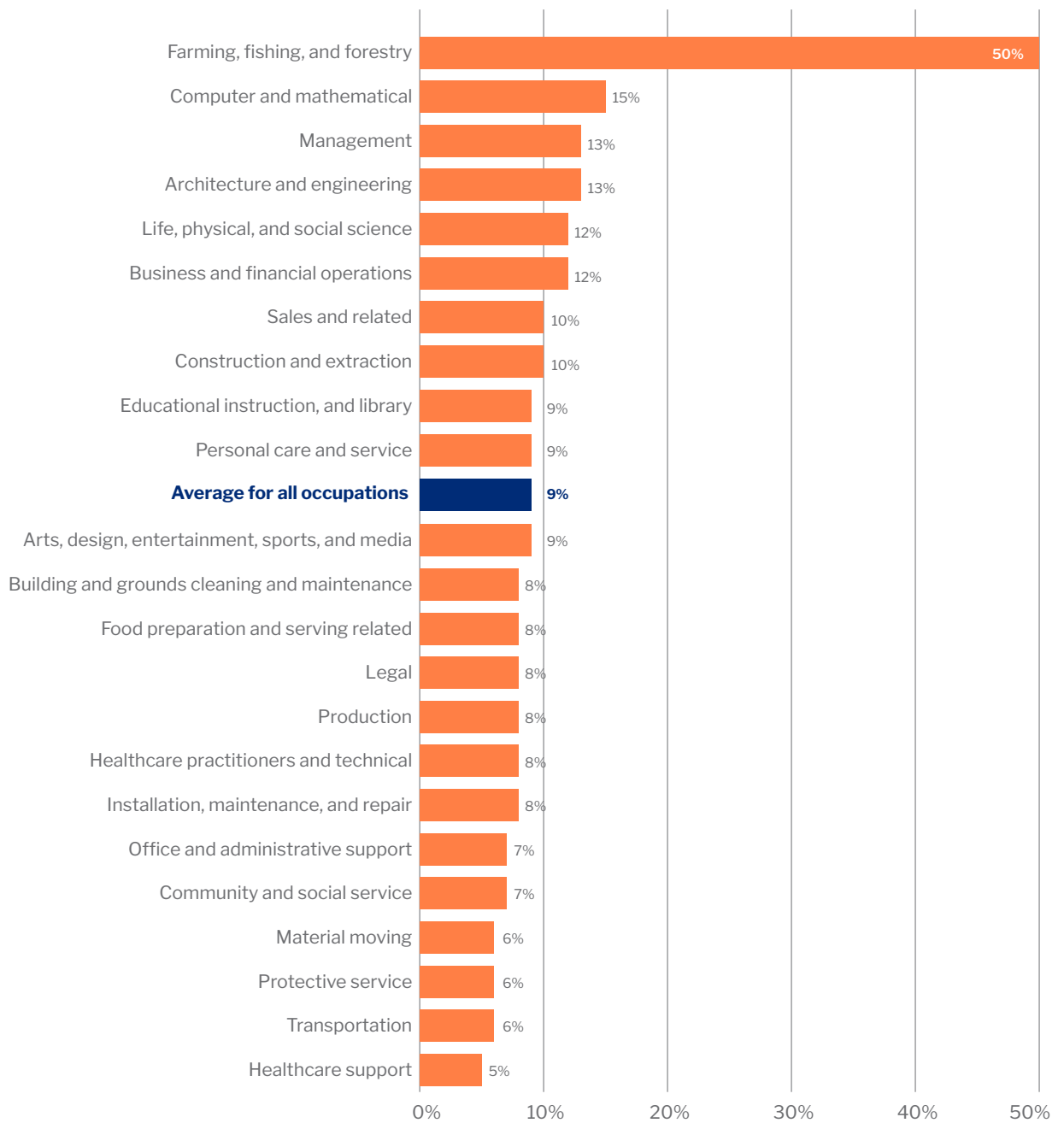
Morris, Norfolk, and Prince William Counties also have high shares of workers in professional and business occupations, although Chester County has higher rates of workers in business and finance and lower rates in office, administrative, and legal.

Occupation	Chester County Residents	Percent of Total Chester County Employment
Management occupations	39,463	14%
Sales and related occupations	30,152	11%
Office and administrative support occupations	25,783	9%
Business and financial operations occupations	24,261	9%
Educational instruction, and library occupations	18,734	7%
Computer and mathematical occupations	17,368	6%
Healthcare practitioners and technical occupations	16,900	6%
Food preparation and serving related occupations	12,158	4%
Construction and extraction occupations	11,293	4%
Production occupations	9,057	3%
Building and grounds cleaning and maintenance occupations	8,068	3%
Personal care and service occupations	7,587	3%
Architecture and engineering occupations	6,802	2%
Transportation occupations	6,412	2%
Healthcare support occupations	5,850	2%
Installation, maintenance, and repair occupations	5,809	2%
Material moving occupations	5,528	2%
Arts, design, entertainment, sports, and media occupations	5,336	2%
Life, physical, and social science occupations	5,150	2%
Community and social service occupations	4,178	2%
Protective service occupations:	3,939	1%
Farming, fishing, and forestry occupations	3,862	1%
Legal occupations	3,642	1%
Civilian employed population 16 years and over	277,332	100%

Source: U.S. Census

▼ FIGURE 9

Resident Occupations as Share of Philadelphia MSA, 2018



Source: U.S. Census

Commuting Patterns

Chester County has a balance between residents working in the county and workers commuting in.

Chester County has a balance between significant numbers of residents commuting out of the county and workers commuting into the county. Unlike Lancaster County, which is relatively self-contained, Chester County's workforce is strongly linked to the rest of the Philadelphia region, as well as the Wilmington area.

► **FIGURE 10**

Commuter Patterns, 2017

County	Commute Into County	Commute Out of County	Live and Work in Same County
Chester County	141,652	139,501	113,153
Berks County	66,490	86,333	113,820
Bucks County	136,517	192,658	133,581
Delaware County	136,720	169,479	104,208
Lancaster County	76,176	86,089	168,854
Montgomery County	315,558	217,146	200,371
Philadelphia County	320,406	255,581	364,463

Source: U.S. Census Longitudinal Employer Household Dynamics

► **FIGURE 11**

Commuter Patterns Comparison, 2017

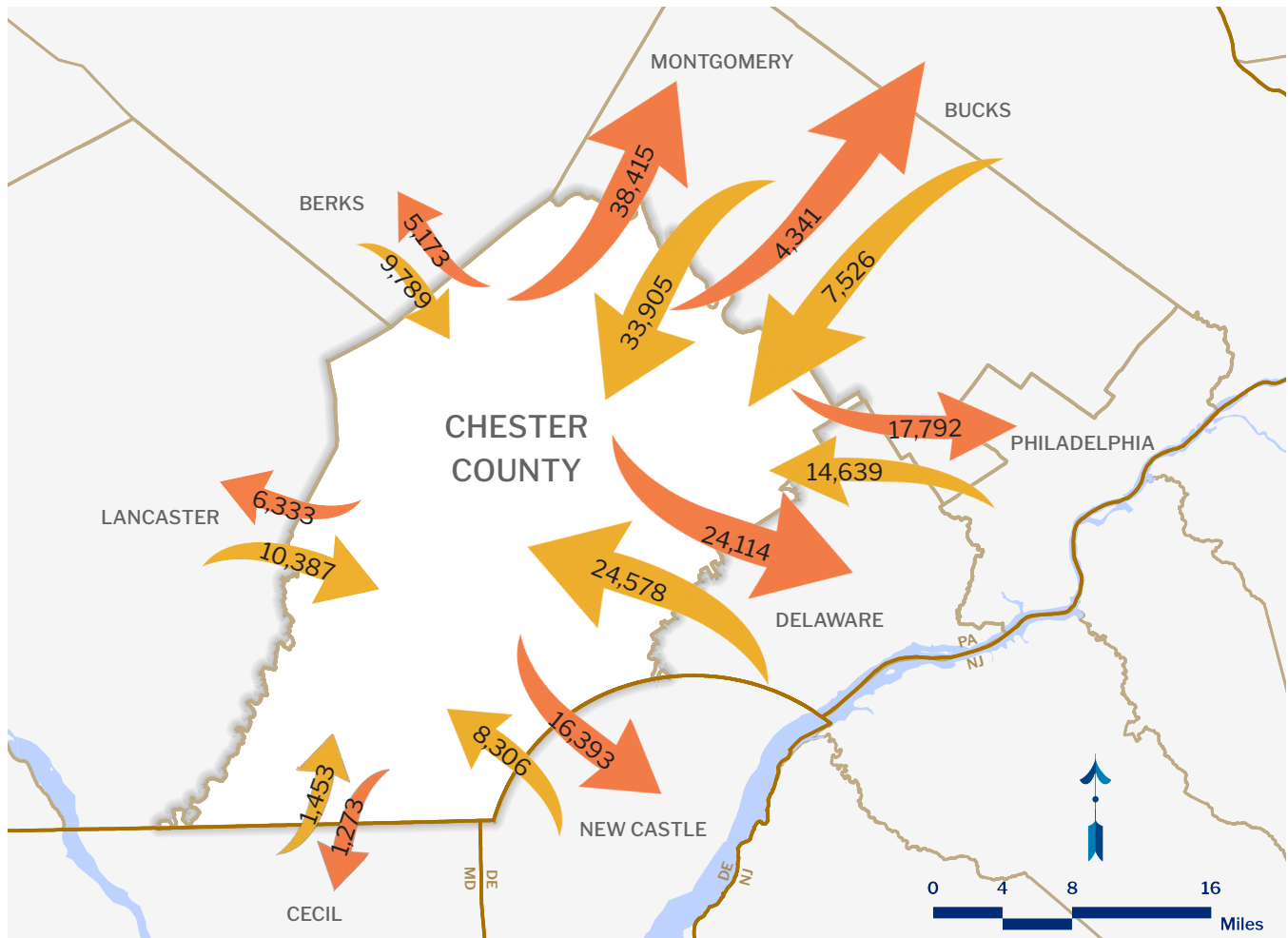
	Net Workers Imported Into County (Inbound - Outbound)	Workers Living and Working in County (%)
Chester County	2,151	28.7%
Berks County	(19,843)	42.7%
Bucks County	(56,141)	28.9%
Delaware County	(32,759)	25.4%
Lancaster County	(9,913)	51.0%
Montgomery County	98,412	27.3%
Philadelphia County	64,825	38.8%

Source: U.S. Census Longitudinal Employer Household Dynamics

NORTHEAST COUNTY COMPARISON

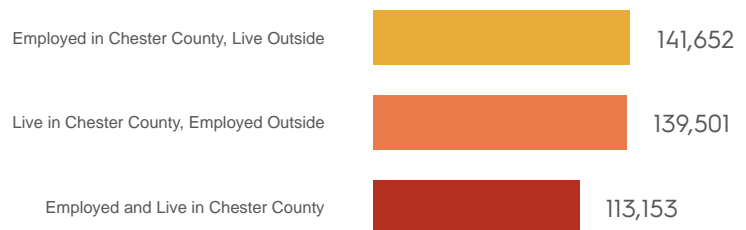
Despite having similar population, the Northeast County comparison counties either import or export employees at a much larger scale than Chester County. This indicates the counties have a larger dependence on their major cities.

▼ **FIGURE 12**
Daily Commuter Flows



Source: U.S. Census Longitudinal Employer Household Dynamics

Daily commuter flows from Longitudinal Employer-Household Dynamics (LODES) data. Data includes jobs covered by unemployment insurance which excludes employment including (but not limited to) sole proprietors, unincorporated self-employed, and some agricultural workers.



Household Income

Chester County has the highest household income in the state.

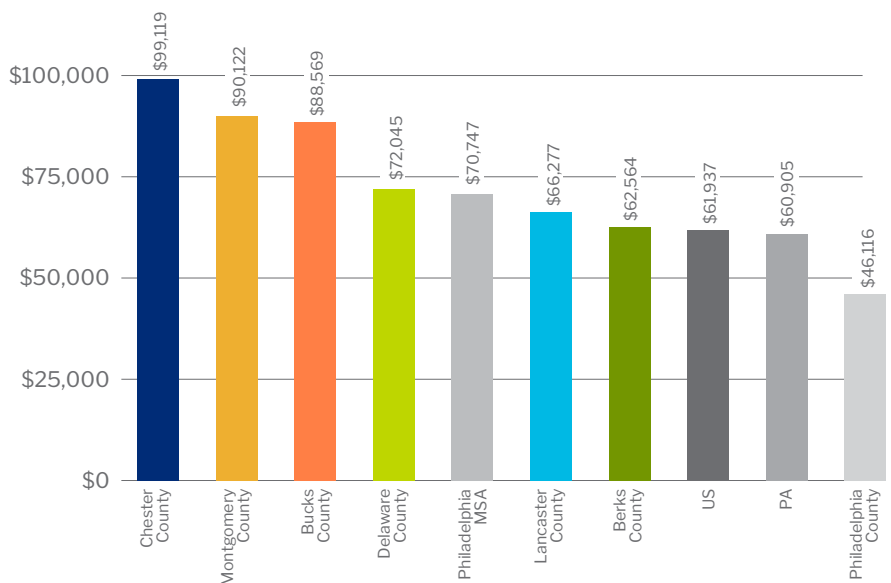
Chester County has high household income compared to both Pennsylvania and the Philadelphia region. This reflects the high-paying professions of the county’s residents and relatively high labor force participation, as well as the income required to purchase housing in the county.

▼ **FIGURE 13**
Chester County Household Income, 2018

	Number of Households	Percent of Households
Total	192,746	100%
Less than \$10,000	5,975	3%
\$10,000 to \$24,999	13,300	7%
\$25,000 to \$49,999	24,865	13%
\$50,000 to \$99,999	53,198	28%
\$100,000 to \$199,999	61,486	32%
\$200,000 or More	34,116	18%

Source: U.S. Census

▼ **FIGURE 14**
Median Household Income Comparison, 2018



Source: U.S. Census

NORTHEAST COUNTY COMPARISON

Norfolk, Morris, and Prince William counties are all high income places, and all three have higher household incomes than Chester County, with Morris having the highest median income in 2018 at \$112,288.

Education and Race

Chester County has a greater percent of residents with a bachelors degree or higher than other local counties.

Chester County residents are highly educated; 54% have a bachelors degree or above. The educational attainment may correspond with the high income and managerial occupations of residents.

▼ **FIGURE 15**

Regional Educational Attainment, 2018

	Chester County	Berks County	Bucks County	Delaware County	Lancaster County	Montgomery County	Philadelphia County	Philadelphia MSA	PA	US
High school graduate or higher	94%	86%	95%	93%	85%	94%	86%	91%	91%	88%
Associates degree or higher	60%	34%	50%	46%	36%	56%	37%	45%	41%	41%
Bachelor's degree or higher	54%	25%	42%	39%	29%	49%	31%	38%	32%	33%

Source: U.S. Census. Percentages reflect population 25 years and older

Chester County has a predominantly white population. The percentages of the population that are Black or African American, or some other race are low compared to the MSA, Pennsylvania, and the US, while the percentages for all other races remain comparable. The percentage of the population that is of Hispanic or Latino Origin is lower than for the MSA and U.S, but comparable with Pennsylvania.

► **FIGURE 16**
Race and Hispanic Origin, 2018

	Chester County	Philadelphia MSA	PA	US
White	85%	66%	80%	72%
Black or African American	6%	21%	11%	13%
Asian	6%	6%	4%	6%
Two or more races	2%	3%	3%	3%
Some other race	1%	4%	2%	5%
American Indian and Alaska Native	0%	0%	0%	1%
Native Hawaiian and Other Pacific Islander	0%	0%	0%	0%
Hispanic or Latino (of any race)	8%	10%	8%	18%

Source: U.S. Census





EMPLOYMENT CHARACTERISTICS

This chapter summarizes characteristics of workers in Chester County, who may be residents of the county or commute into the county from other places.



Employees Working in County

Chester County’s rate of job growth has exceeded national and local rates.

With 277,000 jobs in 2019, Chester County has significant employment, which has been increasing rapidly, although the impact of COVID-19 will almost certainly have an impact on these totals. DVPRC’s current forecast shows the county adding another 87,800 jobs between 2015 and 2045.

Job estimates vary based on data source. The U.S. Bureau of Labor Statistics (BLS) data used in this report for total, industry, and top industry employment includes all part-time or full-time workers who are paid a wage or salary. The BLS data excludes self-employed, proprietors, owners and partners in unincorporated firms, household workers, and unpaid family workers. The DVPRC forecast, which showed Chester County employment of 309,605 in 2015, used the private National Establishment Time Series (NETS) data base. This data base includes employees excluded from BLS, and better captures small privately owned firms and public sector employees.

▼ **FIGURE 17**
Regional Employment

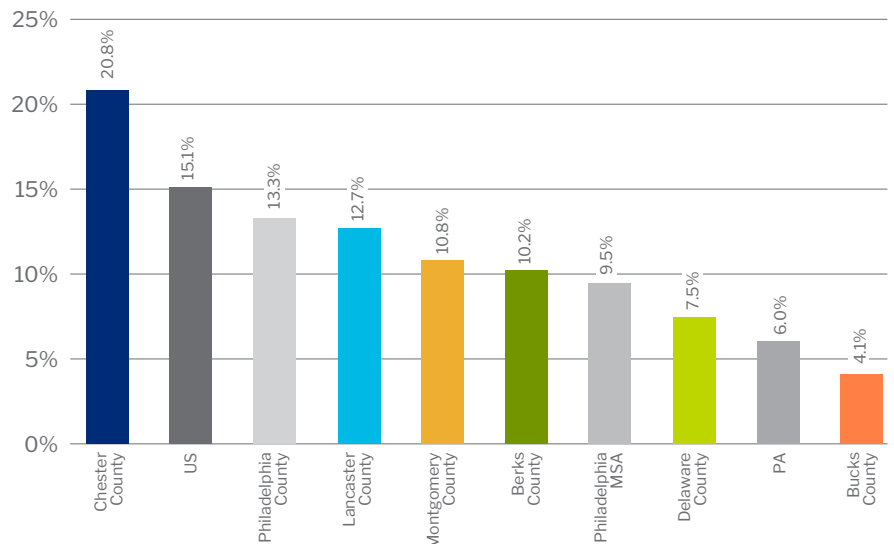
Year	Jobs									
	Chester County	Berks County	Bucks County	Delaware County	Montgomery County	Lancaster County	Philadelphia County	Philadelphia MSA	PA	US
2000	229,523	187,690	319,083	267,671	397,383	244,446	602,049	2,738,837	5,854,551	136,891,000
2010	252,699	191,919	311,423	263,287	400,493	247,925	615,073	2,756,241	5,840,887	139,064,000
2019	277,341	206,763	332,053	287,670	440,364	275,432	682,012	2,997,732	6,207,627	157,537,750
Change in Jobs 2000–2019	47,818	19,073	12,970	19,999	42,981	30,986	79,963	258,895	353,076	2,0647,250

Source: U.S. Bureau of Labor Statistics

► **FIGURE 18**
Percent Change in Employment

NORTHEAST COUNTY COMPARISON

Job growth varied widely among Northeast Comparison counties. Morris County actually had job declines since 2000, Norfolk County saw similar growth to Chester County, and Prince William County, which has been more of a commuter county, saw tremendous job growth, far outpacing Chester County.



Source: U.S. Bureau of Labor Statistics

Employment by Industry

Chester County's employment is concentrated in service and professional industries.

Chester County's employment is broken into broad industry categories by the federal government called NAICS codes. Health care, retail, professional service, finance, and manufacturing employ the most people in the county. Job totals can vary by source and year, and the most current data for detailed industry breakdown is from 2018.

FIGURE 19
Employment by Major Industry, 2018
 2-Digit NAICS Codes

NORTHEAST COUNTY COMPARISON

Morris, Norfolk, and Prince William Counties also have employment concentrations in service and professional industries.

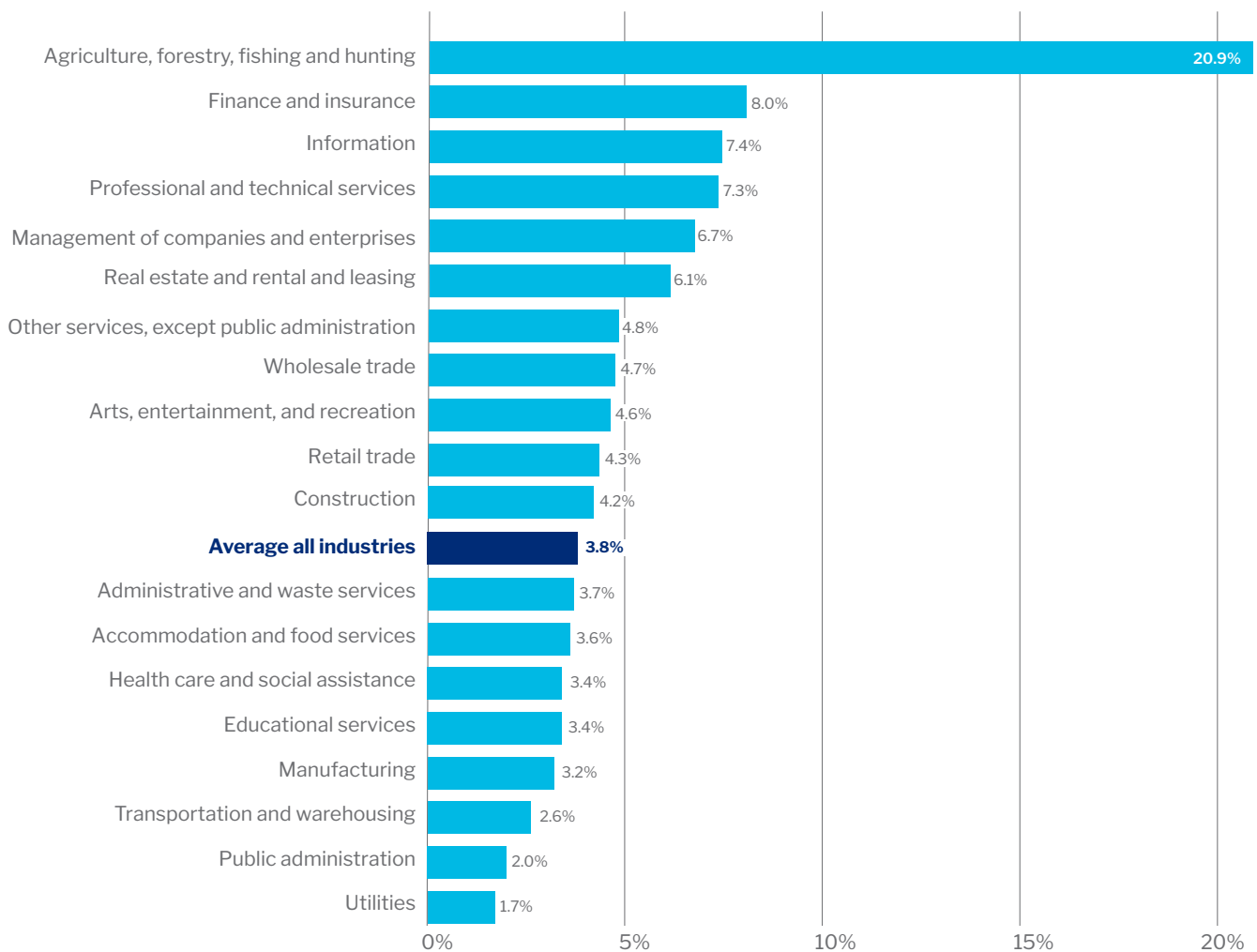
Industry	Chester County Employment	Percent of Total Chester County Employment
Total, all industries	251,021	100%
Health care and social assistance	36,510	15%
Retail trade	26,647	11%
Professional and technical services	26,174	10%
Finance and insurance	20,964	8%
Manufacturing	18,523	7%
Accommodation and food services	16,932	7%
Educational services	16,510	7%
Administrative and waste services	11,796	5%
Construction	11,176	4%
Wholesale trade	10,222	4%
Other services, except public administration	9,733	4%
Management of companies and enterprises	9,134	4%
Transportation and warehousing	8,062	3%
Information	6,573	3%
Agriculture, forestry, fishing and hunting	5,172	2%
Public administration	4,643	2%
Arts, entertainment, and recreation	4,594	2%
Real estate and rental and leasing	3,963	2%
Industry unknown due to data suppression	2,997	1%
Utilities	580	0%
Mining, quarrying, and oil and gas extraction	116	0%

Source: U.S. Bureau of Labor Statistics

Chester County has a disproportionately high share of the state’s employment in many industries. This is particularly notable for agriculture, because of the mushroom industry; finance and insurance, because of companies including Vanguard; information, because of the county’s tech companies; and professional and technical services, because of life science companies.

▼ **FIGURE 20**
County Percent of PA Employment, 2018

2- Digit NAICS Codes



Source: U.S. Bureau of Labor Statistics

The broad industry categories described earlier in this report provide a good overall picture of the county economy, but more detailed industry breakdowns can provide a finer level of information. This finer level of NAICS codes shows the largest number of employees are in restaurants, elementary and secondary schools, other financial investment, company management, computer system design, and grocery stores. COVID-19 will most likely have a major impact on some of these high employment specific industries, such as restaurants.

FIGURE 21
Top 20 Specific Industries, 2018
 4-Digit NAICS Codes

Industry	Chester County Employment	Percent of Total Chester County Employment
Restaurants and other eating places	13,587	5.4%
Elementary and secondary schools	13,578	5.4%
Other financial investment activities	13,045	5.2%
Management of companies and enterprises	9,134	3.6%
Computer systems design and related services	7,806	3.1%
General medical and surgical hospitals	6,518	2.6%
Grocery stores	5,580	2.2%
Management and technical consulting services	5,035	2.0%
Services to buildings and dwellings	4,728	1.9%
Individual and family services	4,562	1.8%
Scientific research and development services	4,018	1.6%
Greenhouse and nursery production	3,840	1.5%
Offices of physicians	3,810	1.5%
Continuing care, assisted living facilities	3,809	1.5%
Employment services	3,582	1.4%
Other amusement and recreation industries	3,499	1.4%
Building equipment contractors	3,344	1.3%
Residential mental health facilities	3,323	1.3%
Electronic shopping and mail-order houses	2,834	1.1%
Automobile dealers	2,812	1.1%

Source: U.S. Bureau of Labor Statistics

Wages by Industry

At over \$71,000 in 2018, Chester County has the highest average wage in the region.

Chester County has a high overall average wage of \$71,031, which might account for the county's high household income. These high wages are driven by certain industries, such as finance, real estate, management, and utilities. Other large industries, such as education, health care, lodging, and food services are closer to state and national figures.

▼ **FIGURE 22**

Wages by Major Industry, 2018

2-Digit NAICS Codes

Industry	Average Annual Wage		
	Chester County	PA	US
Total, all industries	\$ 71,031	\$ 55,892	\$ 57,056
Management of companies and enterprises	\$178,554	\$ 129,285	\$ 122,843
Utilities	\$141,515	\$ 100,610	\$ 98,941
Finance and insurance	\$126,919	\$ 95,781	\$ 109,130
Professional and technical services	\$113,777	\$ 94,553	\$ 96,941
Information	\$108,718	\$ 85,618	\$ 109,992
Wholesale trade	\$103,383	\$ 80,064	\$ 77,869
Real estate and rental and leasing	\$94,260	\$ 61,008	\$ 58,955
Manufacturing	\$76,235	\$ 62,583	\$ 68,582
Construction	\$72,196	\$ 66,387	\$ 62,494
Mining, quarrying, and oil and gas extraction	\$59,735	\$ 86,498	\$ 104,241
Public administration	\$56,087	\$ 61,665	\$ 65,653
Educational services	\$55,077	\$ 57,039	\$ 50,903
Transportation and warehousing	\$49,967	\$ 49,371	\$ 54,807
Health care and social assistance	\$49,226	\$ 50,744	\$ 51,491
Administrative and waste services	\$45,062	\$ 36,758	\$ 41,046
Agriculture, forestry, fishing and hunting	\$42,609	\$ 36,189	\$ 35,941
Retail trade	\$38,408	\$ 29,152	\$ 32,359
Other services, except public administration	\$33,146	\$ 34,097	\$ 38,534
Arts, entertainment, and recreation	\$25,225	\$ 32,709	\$ 38,065
Accommodation and food services	\$19,831	\$ 18,747	\$ 21,672

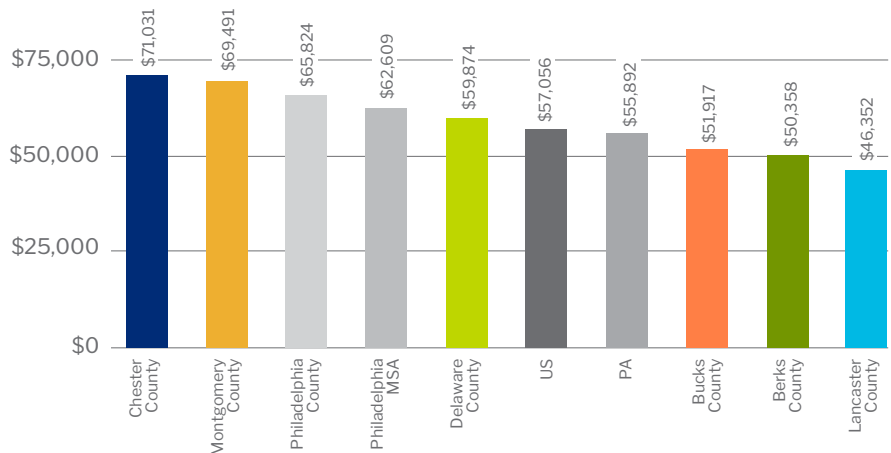
Source: U.S. Bureau of Labor Statistics.

► **FIGURE 23**

Average Wages, 2018

NORTHEAST COUNTY COMPARISON

Chester County's wage is high even compared to other high wage counties nationally. Morris, Norfolk, and Prince William Counties are also all located in high cost-of-living metropolitan areas, but only Morris County has a higher average wage than Chester County.



Source: U.S. Bureau of Labor Statistics.

▼ FIGURE 24

Wages by Specific Industry, 2018

This table only includes 4-digit NAICS code industries with over 50 employees.

Industry	Average Annual Wage		
	Chester County	PA	US
Management of companies and enterprises	\$178,554	\$129,285	\$122,843
Druggists' goods merchant wholesalers	\$161,864	\$140,010	\$122,782
Scientific research and development services	\$157,500	\$137,153	\$135,807
Basic chemical manufacturing	\$139,906	\$83,291	\$102,645
Other financial investment activities	\$139,191	\$150,411	\$220,705
Commercial equip. merchant wholesalers	\$138,127	\$91,155	\$106,852
Metal and mineral merchant wholesalers	\$135,115	\$82,159	\$75,113
Wired and wireless telecommunications carriers	\$135,012	\$102,943	\$87,838
Other ambulatory health care services	\$132,674	\$50,372	\$46,701
Software publishers	\$131,707	\$136,166	\$167,952
Computer systems design and related services	\$127,187	\$106,551	\$117,230
Pharmaceutical and medicine manufacturing	\$125,159	\$129,658	\$115,581
Data processing, hosting and related services	\$122,495	\$84,487	\$123,657
Insurance carriers	\$119,448	\$94,495	\$95,669
Management and technical consulting services	\$115,927	\$101,032	\$95,581
Electronic markets and agents and brokers	\$112,150	\$115,366	\$96,725
Appliance and electric goods merchant wholesalers	\$112,039	\$82,112	\$91,024
Machinery and equipment rental and leasing	\$106,292	\$90,180	\$76,479
Highway, street, and bridge construction	\$106,045	\$66,917	\$64,939

Source: U.S. Bureau of Labor Statistics

Automotive equipment rental and leasing was excluded from the table due to potential data inaccuracy.

Many specific industries have particularly high averages. Many of these are generally acknowledged as high paying industries, such as scientific research, financial investments, and software publishing. Others are not always as universally known as high wage industries, particularly a variety of wholesalers, but also equipment leasing and highway construction.

County vs. National Trends

High location quotients in Chester County for agriculture, company management, finance, and professional services indicate competitive advantages in these industries.

Two analyses can help put Chester County's industrial mix into perspective. The first, location quotients, compares the Chester County industry ratio of total jobs to the national ratio. The second, shift share analysis, examines job change and removes the overall national rate of growth and national industry-specific rate of growth in order to estimate the amount of change caused by unique local conditions.

Employment Location Quotient by Industry

The employment location quotient compares the portion of jobs in an industry in Chester County with the portion of jobs in the nation. For industries where Chester County mimics the national ratio exactly, the location quotient will be 1. When the county has a higher share of jobs than the nation as a whole, the location quotient will be greater than 1, indicating the industry is exporting goods or services outside of the county. Location quotients of less than 1 mean the county has a lower share of jobs, indicating the county is importing good or services from that industry.

▼ FIGURE 25

Employment Location Quotient for Major Industries, 2018

2-Digit NAICS Codes

Industry	Employment Location Quotient							
	Chester County	Berks County	Bucks County	Montgomery County	Delaware County	Lancaster County	Philadelphia County	PA
Agriculture, forestry, fishing and hunting	2.37	1.84	0.24	0.07	0.07	1.36	0.01	0.43
Management of companies and enterprises	2.27	1.95	0.70	1.81	2.14	1.21	1.14	1.30
Finance and insurance	2.04	0.57	0.76	1.75	1.37	0.61	1.06	0.97
Professional and technical services	1.62	0.64	0.90	1.70	0.67	0.66	1.19	0.86
Information	1.29	0.32	0.78	1.08	0.56	0.58	0.79	0.67
Other services, except public administration	1.25	0.98	1.25	1.09	1.31	1.01	1.12	0.99
Real estate and rental and leasing	1.02	0.64	0.68	0.98	0.80	0.53	0.92	0.64
Wholesale trade	1.02	0.89	1.26	1.14	0.71	1.29	0.54	0.83
Arts, entertainment, and recreation	0.98	0.70	1.35	0.83	1.11	0.99	1.03	0.82
Health care and social assistance	0.98	1.08	1.32	1.06	1.31	1.07	1.64	1.10
Retail trade	0.98	0.99	1.21	1.03	1.01	1.13	0.66	0.88
Construction	0.88	0.81	1.19	0.90	0.98	1.35	0.34	0.80
Manufacturing	0.85	2.09	1.19	1.02	0.74	1.79	0.34	1.00
Transportation and warehousing	0.76	1.04	0.78	0.52	1.06	1.41	1.03	1.10
Educational services	0.76	0.13	0.18	0.72	1.24	0.21	1.41	0.86
Administrative and waste services	0.74	0.89	0.84	1.11	0.93	0.56	0.63	0.76
Accommodation and food services	0.71	0.77	0.86	0.69	0.82	0.89	0.93	0.76
Utilities	0.42	1.26	0.64	1.02	0.70	0.39	1.32	0.96
Public administration	0.36	0.52	0.36	0.41	0.63	0.37	1.40	0.71
Mining, quarrying, and oil and gas extraction	0.10	0.28	0.13	0.11	0.07	0.32	0.00	0.93

Source: U.S. Bureau of Labor Statistics

NORTHEAST COUNTY COMPARISON

The mix of jobs in Morris and Norfolk Counties is similar to Chester County, with emphases on finance, management, and professional services, while Prince William County has strengths in retail, construction, and public administration.

Employment Location Quotient by Industry (continued)

The majority of specific industries with high location quotients fall into key industry groups identified by the Chester County Economic Development Council (additional information on page 51). Chester County has extraordinarily high location quotients for other financial investment activities and greenhouse and nursery production, indicating that the County is exporting these goods and services nationally and potentially internationally. Both these industries are industry clusters as they have multiple significant employers in the County. These cluster industries have generated spin-off industries such as agricultural chemical manufacturing, another industry with a high location quotient, as a result of the mushroom growing industry.

Chester County also has cluster industry strength in management of companies and enterprises. Two of the top 20 industries with the highest location quotients were in management: management of companies and enterprises, and management of technical consulting services.

Other high location quotients are driven by one major employer such as electronic shopping and mail-order houses with QVC, school and employee bus transportation with Krapf Transportation, and household appliance manufacturing with Lasko Products.

Chester County also showed strength in medical and scientific research, development, and manufacturing.

▼ FIGURE 26

Employment Location Quotient for Specific Industries, 2018

This table only includes 4-digit NAICS code industries with over 50 employees.

Industry (Chester County Major Influencer)	Employment Location Quotient							PA
	Chester County	Berks County	Bucks County	Montgomery County	Delaware County	Lancaster County	Philadelphia County	
Other financial investment activities (Vanguard, De Lage Landen, Automated Financial , Brinker Capital, Chatham Financial Corp, Moody's Analytics, DFG World)	15.7	0.4	0.6	3.7	1.6	0.6	1.6	1.5
Greenhouse and nursery production (Mushroom Industry)	14.4	8.8	1.0	0.2	-	2.0	-	1.3
Electronic shopping and mail-order houses (QVC)	4.1	-	0.7	1.5	0.1	-	0.6	1.0
Agricultural chemical manufacturing (Mushroom Industry)	4.0	-	-	-	-	1.0	-	0.4
Machinery and equipment rental and leasing (DII Financial Solutions)	4.0	0.4	-	0.8	1.6	0.7	0.5	1.0
Household appliance manufacturing (Lasko Products Inc)	3.9	-	-	-	-	-	-	0.2
School and employee bus transportation (George Krapf)	3.9	-	-	1.9	1.9	1.6	1.7	2.4
Other animal production (Horses and Equine)	3.7	-	-	-	-	5.0	-	0.9
Scientific research and development services (XL Caitlin, Environmental Standards Inc, Virtualscopics Inc, Absorption Systems Lp, Qiagen Inc, Charles River Laboratories Inc, Teva, Venatorx Pharmaceuticals)	3.3	0.1	0.9	5.0	0.5	0.6	1.6	1.1
Software publishers (Cerner, Tivo, Bentley Systems)	3.3	-	0.6	1.4	0.3	0.2	0.1	0.5
Druggists' goods merchant wholesalers (Endo , West Pharmaceutical, Amerisourcebergen, Eisai, Johnson & Johnson)	3.0	-	1.1	5.2	0.4	0.7	0.7	0.9
Pharmaceutical and medicine manufacturing (Agc Chemicals, Fujirebio Diagnostics, Sphaera Pharma, Jackson Immuno Research Labs)	2.9	-	1.9	9.8	0.4	-	0.6	1.4
Direct selling establishments (Filk Hospitality Group)	2.5	2.0	3.0	1.4	1.7	2.5	0.6	1.5
Management of companies and enterprises (Banks and Holdings Companies)	2.3	1.9	0.7	1.8	2.1	1.2	1.1	1.3
Computer systems design and related services (Decision One Corp, Bracket Global Llc, Unisys Corp, Cenero)	2.1	0.3	0.6	1.6	0.4	0.3	0.4	0.7
Management and technical consulting services (Aegon Direct Marketing, West Analytical Services, Genex, IBM Talent Solutions, Concordia Valsource, Liquid Hub, West Goshen Township)	2.0	0.7	0.9	1.6	0.9	0.4	1.2	0.8
Resin, rubber, and artificial fibers mfg. (Sartomer, Rgf Materials, Resin Enterprise, Channel Polymers)	1.8	-	-	-	-	-	0.5	0.7
Other nonmetallic mineral products (Various)	1.8	0.6	-	1.2	0.2	2.8	-	0.8
Medical equipment and supplies manufacturing (De Puy Synthes, Merit Medical, Teleflex)	1.8	3.6	1.7	0.7	0.7	0.6	0.3	1.0
Commercial equip. merchant wholesalers (Keeler, Ricoh USA, Biotelemetry, Freedom Medical)	1.7	0.7	0.9	1.3	1.0	0.5	0.3	0.6

Source: U.S. Bureau of Labor Statistics, ArcGIS Business Analyst data

Employment Shift Share Analysis by Industry

A shift share analysis removes the influence of national overall and industry employment changes from the actual local change that occurred, to estimate an “expected” local change in employees due to local factors. While not important in themselves, the “expected” local change numbers can be used to identify potential strengths and weaknesses at the local level.

The analysis cannot identify the causes of the change at the local level. Unique local factors influencing employment change vary and may include:

Labor Force Specialization

The area may have a labor force with specific industry skills.

Educational Feeders

Schools and colleges can increase labor force specialization and generate spin-offs.

Local Assets

Local natural or historical characteristics may cause industry specialization.

Large Employers

Major employers opening, terminating employees, or closing in a local area will impact changes in employment.

Industry Clusters

Areas may develop strengths in an industry, which supports future growth in the industry.

Industry Support

Industries may open to support existing strong industries, such as produce distribution centers to support restaurants or farms.

Industry Externalities

Industries may develop to handle the externalities of other prominent businesses, such as compost as a result of farm refuse.

Technology Changes

Advances in technological efficiencies may cause decreases in employment at the local level.

Cost-Of-Living

Costs such as housing and transportation costs can assist or stymie industry growth.

Major Events

Events and festivals can cause increases in industry employment.

Population Growth

Local growth can increase demand for industries such as construction as new housing is needed.

Government Intervention

Local government policy, taxes, and assistance can grow or hinder industries.

Local Disaster

Natural disasters, epidemics, and man-made disasters at the local level can cause increases or decreases in employment.

National Clusters

Strong clusters in other areas of the country (such as tech jobs in California) may cause disproportionate national growth.

The analysis should be combined with additional analyses and local knowledge to understand the unique local factors influencing employment change.

Chester County showed indications of strong employment growth due to local factors for: other support services, furniture and furnishing wholesalers, software publishers, educational support services, and other ambulatory health care services. Chester County indicated expanded employment strength in key industries including finance (nondepository credit intermediation, other financial services), tourism (spectator sports, museums and historical sites), healthcare, and education.

▼ **FIGURE 27**
Specific Industries With Highest Indications of Growth Due to Local Factors, 2015-2018

This table only includes 4-digit NAICS code industries with over 50 employees.

Industry	Indications of Growth Due to Local Factors	Relevant Major Employers
		These example employers have unique characteristics and may be growing, declining, or staying the same.
Other support services	Very High	Packaging and Other Support
Furniture and furnishing merchant wholesalers	Very High	Various
Software publishers	Very High	Cerner, Tivo, Bentley Systems, Frontline Technologies
Other ambulatory health care services	Very High	Complete Healthcare, Twin Pines Healcare
Educational support services	Very High	Valley Forge Educational Services, The Institutes
Spectator sports	High	Various
Social advocacy organizations	High	Devereux, Chester County Pocopson Home, Recovery Centers of America, Alcoholics Anonymous, Bowling Green
Nondepository credit intermediation	High	Reverse Mortgage Team, DFC Global
Other miscellaneous manufacturing	Medium	Handi-Crafters, Graco Children's Products, Idemia, Auger Fab, Baker Industries, Anholt Technologies
Commercial and service industry machinery	Medium	General Ecology
Other nonmetallic mineral products	Medium	Various
Vocational rehabilitation services	Medium	Austill's Rehabilitation, Devereux, Powerback Rehabilitation, 470 Manor, Pennbrook, Brian's House
Advertising, pr, and related services	Medium	Cadient, Competitive Media Reporting
Office administrative services	Medium	Various
Beer, wine, and liquor stores	Medium	Fine Wine and Good Spirits
Agricultural chemical manufacturing	Medium	Full Circle Mushroom Compost, Arbor Ganic Acres
Business, computer and management training	Medium	Various
Home health care services	Medium	Personal Health Care, Southeastern Home Health
Museums, historical sites, zoos, and parks	Medium	Longwood Gardens
Other schools and instruction	Medium	Various
Office furniture and fixtures manufacturing	Medium	Transwall Office Systems
Employment services	Medium	Aerotek Staffing
Offices of real estate agents and brokers	Medium	Various
Other personal services	Medium	Various
Other financial investment activities	Medium	Vanguard Group, De Lage Landen, Automated Financial Systems Inc., Brinker Capital Securities, Chatham Financial, Moody's Analytics, DFG World
Newspaper, book, and directory publishers	Medium	Daily Local News, Progressive Business Publishing
Outpatient care centers	Medium	Human Services Inc
Residential mental health facilities	Medium	Various
Specialty food stores	Medium	Various

Source: U.S. Bureau of Labor Statistic, ArcGIS Business Analyst data

Employment Shift Share Analysis by Industry (continued)

Chester County saw indicators of employment decline due to local factors in medical and diagnostic laboratories, commercial equipment wholesalers, and waste treatment and disposal.

▼ FIGURE 28

Specific Industries With Highest Indications of Decline Due to Local Factors, 2015-2018

Industries with 100 or more employees are included.

Industry	Indications of Decline Due to Local Factors	Relevant Major Employers
		These example employers have unique characteristics and may be growing, declining, or staying the same.
Medical and diagnostic laboratories	High	Tridium
Commercial equip. merchant wholesalers	High	Keeler Ltd, Ricoh, Biotelemetry, Freedom Medical
Waste treatment and disposal	High	Various
Fruit and vegetable preserving and specialty	High	Keystone Foods Corp
Other heavy construction	Medium	Various
Automotive equipment rental and leasing	Medium	Various
Computer systems design and related services	Medium	DecisionOne Corporation, Bracket Global LLC
Travel arrangement and reservation services	Medium	Various
Florists	Medium	Various
Direct selling establishments	Medium	Various
Motor vehicle and parts merchant wholesalers	Medium	Various
Specialized design services	Medium	Everfast Inc., Adelphia Graphics Systems
Resin, rubber, and artificial fibers mfg.	Medium	RFG Materials, Sartomer Americas, Resin Enterprise, Channel Polymers
Highway, street, and bridge construction	Medium	Allan Myers
Architectural and structural metals mfg.	Medium	Various
Insurance carriers	Medium	Various
Chemical merchant wholesalers	Medium	Various
Semiconductor and electronic component mfg.	Medium	Efector, Vishay Intertechnology
Warehousing and storage	Medium	A. Duie Pyle
Electronic shopping and mail-order houses	Medium	QVC
Greenhouse and nursery production	Medium	Mushroom Industry
Ag., construction, and mining machinery mfg.	Medium	Schramm Inc
Grocery and related product wholesalers	Medium	Basciani Foods, Martin Brower
Jewelry, luggage, and leather goods stores	Medium	Various
Activities related to real estate	Medium	Various
Paper and paper product merchant wholesalers	Medium	Vertiv, Americare Royal, Tri-Pac Inc.
Printing and related support activities	Medium	Journal Register

Source: U.S. Bureau of Labor Statistic, ArcGIS Business Analyst



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BUSINESS CHARACTERISTICS

This chapter identifies basic business characteristics in Chester County, including major employers, number of establishments, and size of establishments.

3

Major Employers

Chester County's largest employers, by number of employees, include financial, online retail, governmental, hospital, educational, grocery, pharmaceutical, and computer companies and organizations.

▼ FIGURE 29

Major Employers, 2019

According to PA Department of Labor and Industry

- | | | |
|---|--|---|
| <p>1. Vanguard Group Inc
Multiple Locations</p> <p>2. QVC Inc
West Chester</p> <p>3. County of Chester
Multiple Locations</p> <p>4. Chester County Hospital
West Chester</p> <p>5. Federal Government
Multiple Locations</p> <p>6. Giant Food Stores, LLC
Multiple Locations</p> <p>7. Main Line Hospitals Inc
Multiple Locations</p> <p>8. United Parcel Service Inc
Multiple Locations</p> <p>9. PA State System of Higher Education (Cheyney University and West Chester University)
Multiple Locations</p> <p>10. The Devereux Foundation
West Chetser</p> <p>11. Downingtown Area School District
Multiple Locations</p> <p>12. YMCA of Greater Brandywine Valley
Multiple Locations</p> <p>13. Chester County Intermediate Unit
Downingtown</p> <p>14. Janssen Research & Development LLC
Tredyffrin</p> <p>15. West Chester Area School District
Multiple Locations</p> <p>16. Communications Test Design Inc
West Chester</p> | <p>17. Comcast Cablevision Corp (PA)
Kennet Square</p> <p>18. Wawa Inc
Multiple Locations</p> <p>19. State Government
Multiple Locations</p> <p>20. Wal-Mart Associates Inc
Multiple Locations</p> <p>21. Wegmans Food Markets Inc
Multiple Locations</p> <p>22. Johnson Matthey Inc
West Chetser</p> <p>23. Siemens Medical Solutions USA Inc
Malvern</p> <p>24. De Lage Landen Financial Services
Tredyffrin</p> <p>25. Cerner Health Services Inc
Malvern</p> <p>26. ACME Markets Inc
Multiple Locations</p> <p>27. Phoenixville Hospital, LLC
Phoenixville</p> <p>28. Tredyffrin/Easttown School District
Multiple Locations</p> <p>29. Target Corporation
Multiple Locations</p> <p>30. AmerisourceBergen Services Corp
Chesterbrook</p> <p>31. The Arc of Chester County
West Chester</p> <p>32. Owen J Roberts School District
Multiple Locations</p> | <p>33. Unionville Chadds Ford School District
Multiple Locations</p> <p>34. Brandywine Hospital
Coatesville</p> <p>35. Herr Foods Inc
Nottingham</p> <p>36. Coatesville Area School District
Coatesville</p> <p>37. The Pyle Corporation
Multiple Locations</p> <p>38. Phoenixville Area School District
Pheonixville</p> <p>39. Longwood Gardens Inc
Kennet Square</p> <p>40. Bayada Home Health Care Inc
Multiple Locations</p> <p>41. George Krapp Jr & Sons Inc
Glenmoore</p> <p>42. Total Renal Care Inc
Coatesville</p> <p>43. Bentley Systems Inc
Exton</p> <p>44. Great Valley School District
Multiple Locations</p> <p>45. Avon Grove School District
Multiple Locations</p> <p>46. Collegium Charter School
Exton</p> <p>47. Genesis Administrative Services LLC
Kennett Square</p> <p>48. Ricoh USA Inc
Exton</p> <p>49. CertainTeed Corporation
Malvern</p> |
|---|--|---|

Source: Pennsylvania Department of Labor and Industry Center for Workforce Information & Analysis

Employers by Industry

The largest number of establishments are in professional services, health care, construction, and retail. These are industries that often have many small businesses. It is important to note that sole proprietors are not captured in this data; so, a web designer who works from home would not be included in these numbers.

► FIGURE 31
Employers by Industry,
2018

Industry	Number of Chester County Establishments
Total, all industries	15,529
Professional and technical services	2,461
Health care and social assistance	1,861
Other services, except public administration	1,460
Construction	1,413
Retail trade	1,406
Accommodation and food services	1,019
Finance and insurance	970
Wholesale trade	966
Administrative and waste services	958
Manufacturing	629
Real estate and rental and leasing	513
Educational services	404
Transportation and warehousing	290
Arts, entertainment, and recreation	270
Information	259
Management of companies and enterprises	242
Agriculture, forestry, fishing and hunting	238
Public administration	129
Utilities	34
Mining, quarrying, and oil and gas extraction	9

Source: U.S. Bureau of Labor Statistics

► FIGURE 32
Establishments by Size

Only 16 of the county's establishments have over 1,000 employees. The vast majority have 2 to 9 employees.

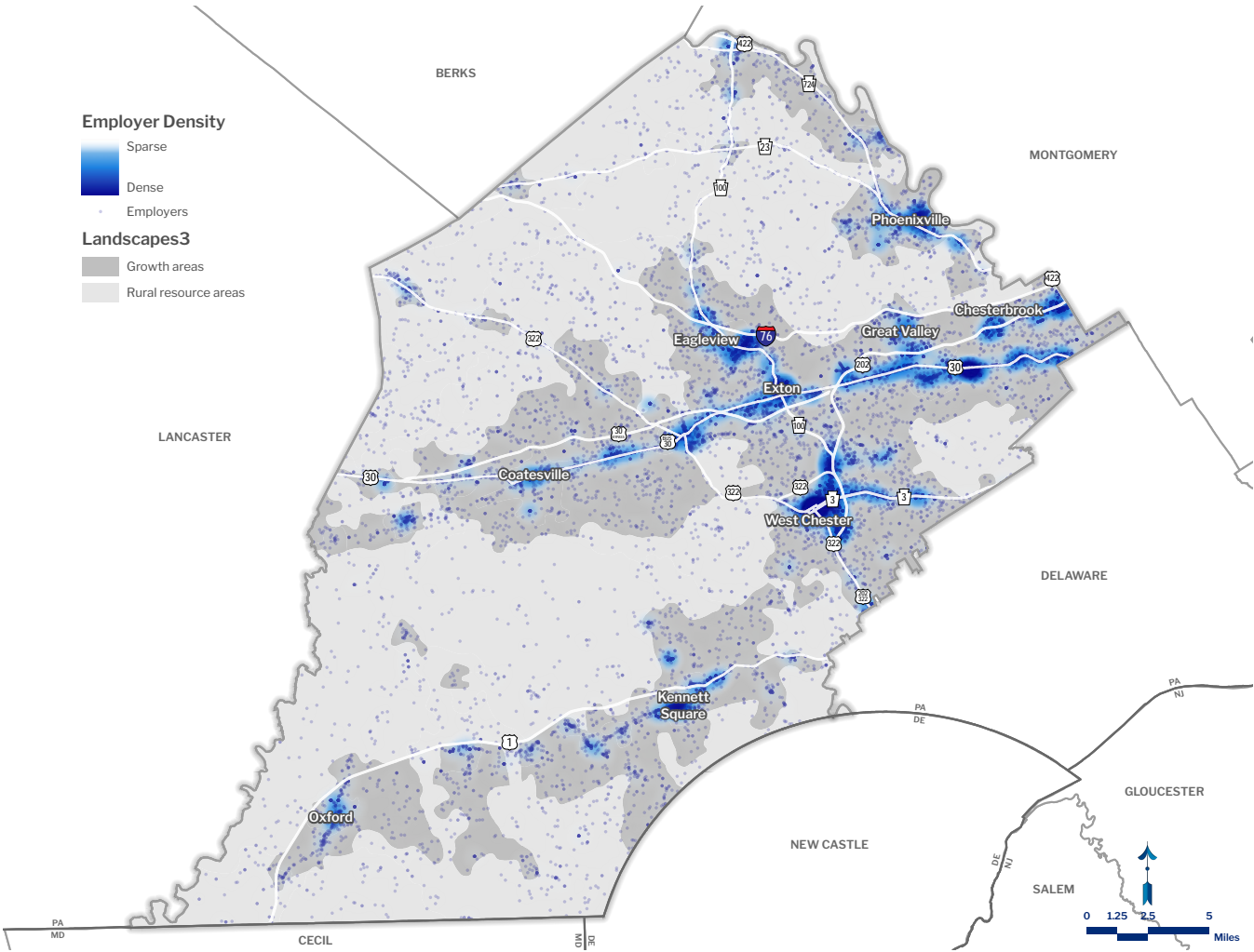
Number of Employees	Chester County Establishments
2-9	10,512
10 to 49	3,211
50-249	750
250-999	104
1,000 or more	16

Source: U.S. Bureau of Labor Statistics

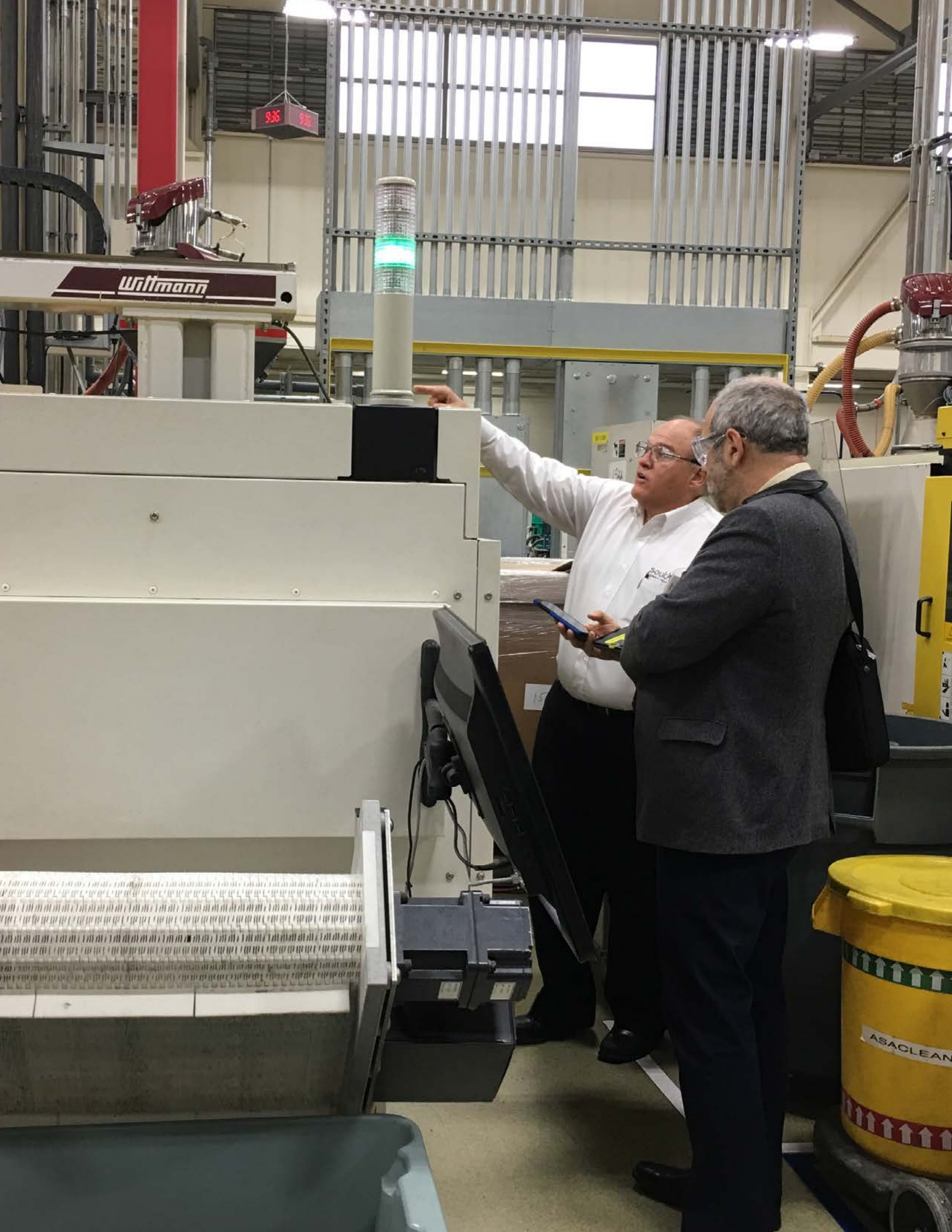
Establishments by Location

Chester County’s businesses and other establishments are concentrated near population centers and transit nodes. These establishments are largely in or near the Landscapes3 urban and suburban centers.

▼ **FIGURE 33**
Establishments by Location



Source: ArcGIS Business Analyst



Wittmann

9:36

ASACLEAN



GROSS DOMESTIC PRODUCT

This chapter identifies Gross Domestic Product totals for counties and industries. Industries that lead in employment do not necessarily lead in Gross Domestic Product.

Photograph Credit:
Chester County Economic
Development Council

STANDARD CELL
PURGE
MATERIAL

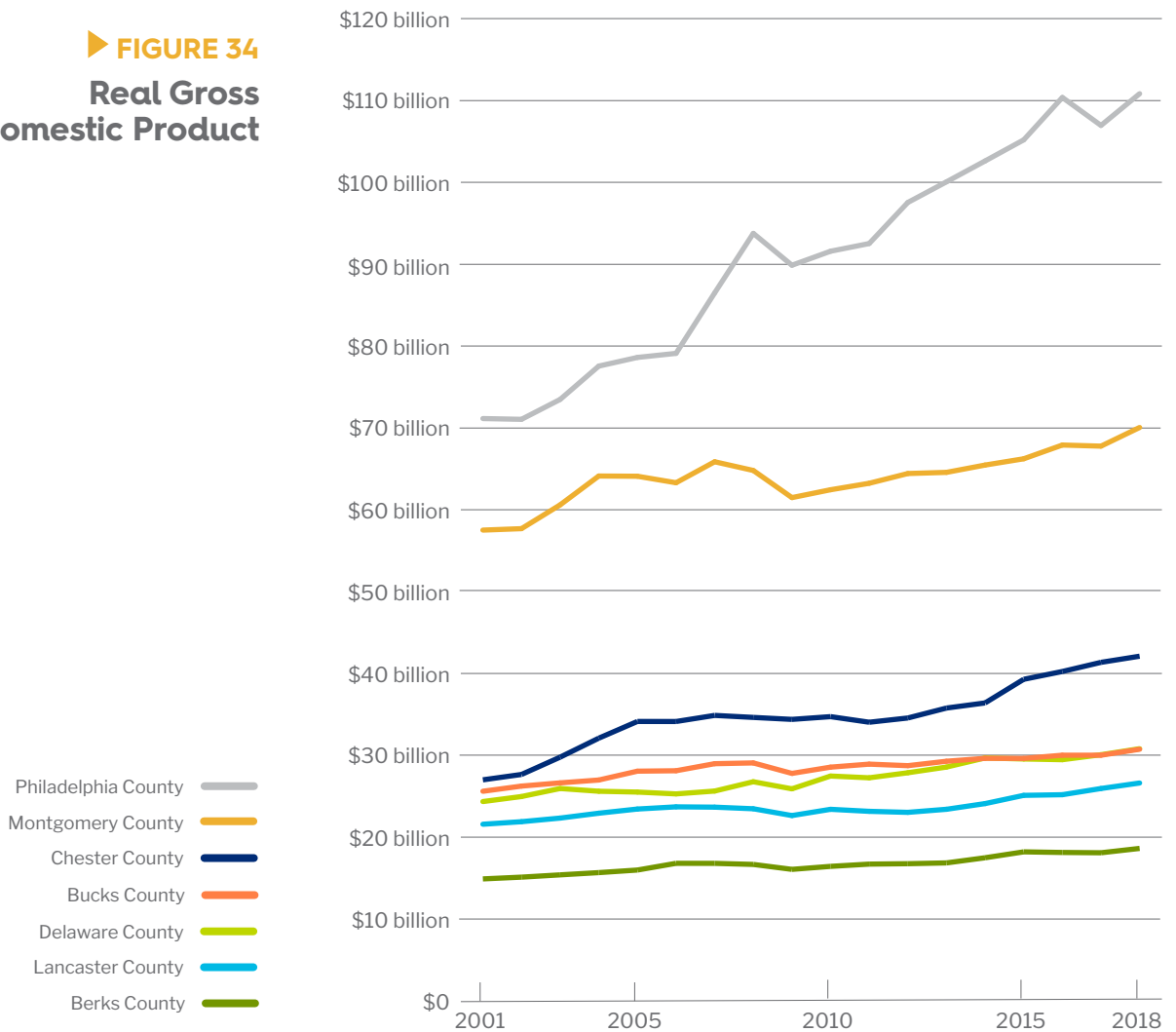
Gross Domestic Product

Chester County led its regional peers in GDP growth.

Gross Domestic Product (GDP) measures the estimated value of goods and services produced in an area. Real Gross Domestic Product is an inflation adjusted GDP.

Chester County's Real Gross Domestic Product grew 56% over the last 18 years, growing from \$27 billion in 2001 to \$42 billion in 2018. This outpaced the rate of growth in nearby counties and pulled Chester County further away from Delaware and Lancaster counties, both of which have similar but larger populations. Philadelphia and Montgomery counties remain very strong in Gross Domestic Product.

► **FIGURE 34**
Real Gross Domestic Product



Source: U.S. Department of Commerce Bureau of Economic Analysis

NORTHEAST COUNTY COMPARISON

Chester County’s Gross Domestic Product was about 80% of Norfolk and Morris counties but grew at a much faster pace. Prince William has a much smaller Gross Domestic Product, less than half the size of Chester County’s.

Gross Domestic Product by Industry

In addition to employment and wages, the impact of an industry can be measured by Gross Domestic Product. Some industries have a disproportionate impact on Gross Domestic Product in relation to their number of jobs.

► **FIGURE 35**
**Real Gross Domestic
Product by Major
Industry, 2018**

Industry	Chester County 2018 Real GDP	Percent of Total
All industry total	\$41,947,957,000	100%
Information	\$5,854,038,000	14%
Professional, scientific, and technical services	\$5,349,323,000	13%
Real estate and rental and leasing	\$4,911,260,000	12%
Finance and insurance	\$4,370,831,000	10%
Manufacturing	\$4,086,839,000	10%
Wholesale trade	\$3,875,311,000	9%
Retail trade	\$2,319,377,000	6%
Government and government enterprises	\$2,225,261,000	5%
Health care and social assistance	\$2,183,480,000	5%
Management of companies and enterprises	\$2,035,755,000	5%
Construction	\$1,295,177,000	3%
Administrative and support and waste management and remediation services	\$993,403,000	2%
Other services (except government and government enterprises)	\$649,589,000	2%
Transportation and warehousing	\$526,810,000	1%
Accommodation and food services	\$525,539,000	1%
Educational services	\$395,214,000	1%
Agriculture, forestry, fishing and hunting	\$283,466,000	1%
Arts, entertainment, and recreation	\$267,951,000	1%
Utilities	\$97,141,000	0%
Mining, quarrying, and oil and gas extraction	\$29,935,000	0%

Source: U.S. Department of Commerce Bureau of Economic Analysis

County vs. National Trends

Local factors in Chester County caused GDP growth in agriculture, information, finance, and insurance industries.

The Real Gross Domestic Product of the county's information sector grew dramatically between 2015 and 2018, as well as finance and insurance. In these industries, local factors led to positive growth, which was also the case for agriculture, utilities, construction, and administration growth. However, analysis indicated that all other industries would have seen decline in Real Gross Domestic Product if not for the influence of growth at the national level for the industries and economy as a whole.

► FIGURE 36
Real Gross Domestic Product Shift Share Analysis, 2015-2018

Industry	Local Factors Causing Growth or Decline
Agriculture, forestry, fishing and hunting	Growth ▲
Information	Growth ▲
Finance and insurance	Growth ▲
Utilities	Growth ▲
Construction	Growth ▲
Administrative and support and waste management and remediation services	Growth ▲
Other services (except government and government enterprises)	Decline ▼
Educational services	Decline ▼
Mining, quarrying, and oil and gas extraction	Decline ▼
Government and government enterprises	Decline ▼
Real estate and rental and leasing	Decline ▼
Professional, scientific, and technical services	Decline ▼
Management of companies and enterprises	Decline ▼
Accommodation and food services	Decline ▼
Arts, entertainment, and recreation	Decline ▼
Transportation and warehousing	Decline ▼
Manufacturing	Decline ▼
Health care and social assistance	Decline ▼
Wholesale trade	Decline ▼
Retail trade	Decline ▼

Source: U.S. Department of Commerce Bureau of Economic Analysis





KEY INDUSTRIAL GROUPS

This chapter describes nine key industry groups identified by the Chester County Economic Development Council as critical industry groupings.

5

Overview

The Chester County Economic Development Council has identified nine prominent industry groupings for Chester County:

- Agriculture & Food Production
- Education
- Energy
- Finance
- Health Care
- Information Technology
- Life Science
- Manufacturing
- Tourism and Entertainment

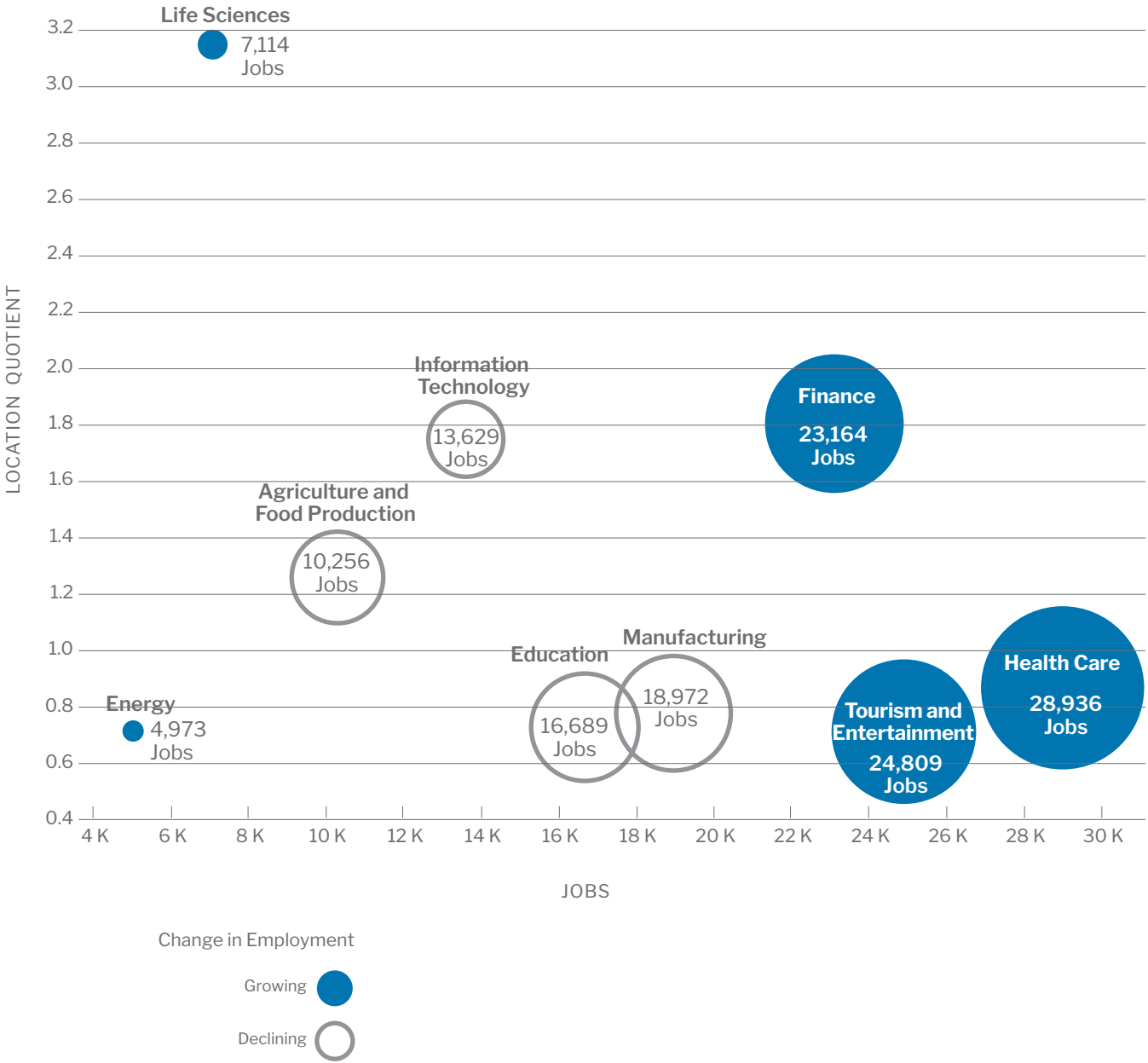
These are not necessarily the largest industries in the county, but they are critical for a variety of reasons, including the industry's relative strength, its high profile for the business community and the public, its importance for general economic development, and its historic significance in the county.

The way people think about industries does not necessarily fall into the categories created by the federal Bureau of Labor Statistics. This analysis has alternative groupings that may overlap at times between the nine industries.

In addition, this analysis estimates sole proprietors and contract employees, which are particularly important in certain industries, such as agriculture.

The ratio of establishments with one person from the NETS 2013 data were used to estimate self-employed persons in 2018. Figures were adjusted to account for growth of self-employed persons from 2013 to 2018.

▼ FIGURE 37
Industry Group Comparison



Agriculture and Food Production



Chester County has a long and distinguished history as an agricultural powerhouse. Chester County agriculture ranks 2nd among Pennsylvania’s 67 counties in the value of agricultural products sold. This is due to the diversity of the industry, the fact that half of the nation’s mushrooms are grown in the county, and the county’s location near affluent markets for direct-to-consumer sales. The county’s prime agricultural soils have positioned it to excel in the following industries: crop production, Christmas tree nurseries, forestry, landscaping, viticulture, and orchard and

vegetable production. The county also has a significant amount of dairy, swine, poultry and egg production and is one of the most densely populated equine areas in the country. Chester County’s unique indoor growing sectors, led by advancements in the mushroom sector, are cutting edge, as are advancements in greenhouse production and aquaculture.

For this analysis, the agricultural industry is broadly defined as agricultural producers, food manufacturing, beverage manufacturing, agricultural chemical manufacturing, farm machinery manufacturing, agricultural wholesalers, fruit and vegetable stores, farm stores, and agricultural veterinary education/services.

When compared with nearby Pennsylvania counties, Chester County has more employment directly in agricultural production than other counties, most likely due to the mushroom industry. Lancaster, Montgomery, and Philadelphia Counties have significantly more workers in food manufacturing than Chester County.

► FIGURE 38
Estimated Agricultural and Food Production Employment, 2018

Agricultural Industry, based on Bureau of Labor Statistics	9,292
Estimated Self Employed	564
Other (From estimated New Bolton Vet School)	400
Total	10,256

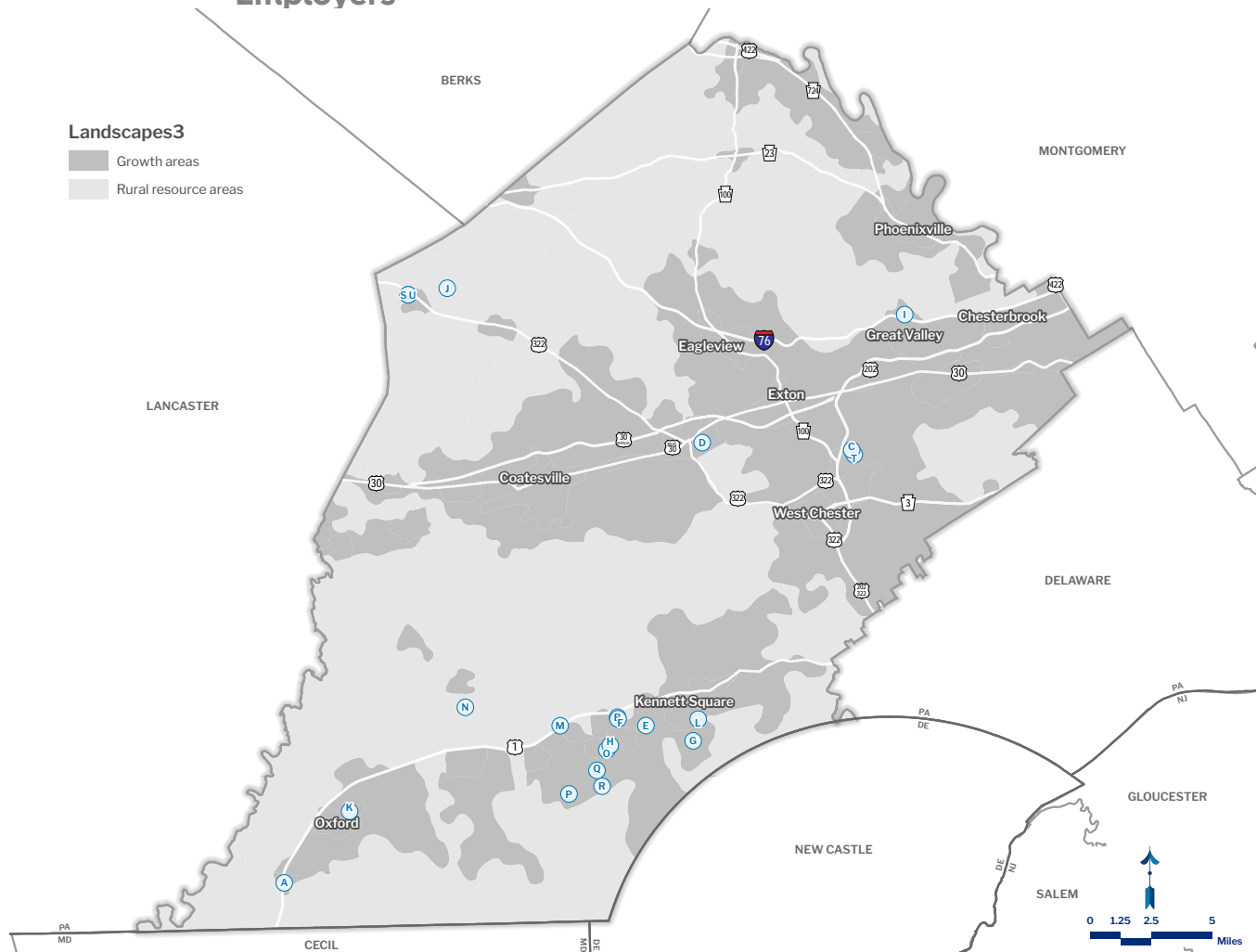
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for agriculture and food production, broadly defined, is 1.3. This shows that agriculture and food production is strong in Chester County, although it should be noted that, because sole proprietors and some agricultural workers are not in the BLS data, a place with corporate farming, like the mushroom industry, will show a higher location quotient.
- The shift share analysis for employment between 2015 and 2018 indicates local factors are having a negative impact on change in agricultural employment.

▼ **FIGURE 39**
Significant Agriculture and Food Production Employers

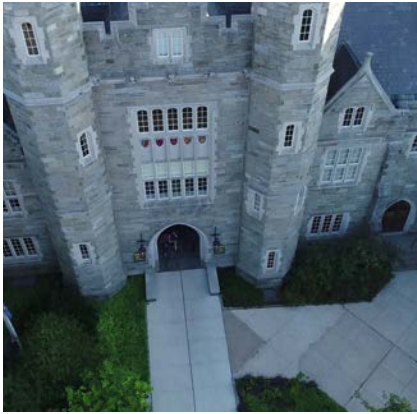
Chester County's significant agriculture-related employers are led by food and beverage manufacturers and mushroom growers and processors.



Source: ArcGIS Business Analyst

- | | | |
|--------------------------------------|--------------------------------------|--|
| A. Herr Foods Inc | H. To-Jo Mushrooms Inc | O. Basciani Foods Inc |
| B. Giorgio Fresh Co | I. Devault Foods | P. Gourmet's Finest Mushroom Co |
| C. Mars Drinks/ Lavazza | J. Suplee Hollow Cereal | Q. JD Mushrooms |
| D. Victory Brewing Co | K. Tasty Baking Co | R. Kaolin Mushroom Farms Inc |
| E. Country Fresh Mushroom | L. Kennett Square Specialties | S. Good Food Inc |
| F. Modern Mushroom Farms Inc | M. C P Yeatman & Sons Inc | T. Keystone Foods Corp |
| G. Phillips Gourmet Mushrooms | N. C T Bartoli Mushrooms Inc | U. Zook Molasses Co |

Education



Chester County is known for having some of the best primary and secondary schools in the Commonwealth. Within the past few years, multiple Chester County schools were ranked in the top five best school districts in the state.

Chester County is home to a variety of educational institutions, which include: 12 public school districts composed of 60 elementary schools, 19 middle schools, and 17 high schools; 95 private early childhood education/elementary schools; 20 private high schools; 18 charter schools/online options; three technical college high school

campuses; 6 colleges/universities; and numerous postsecondary education institutions. West Chester University, a state public school, is the largest university in the county and has been growing significantly. Uniquely, the county is also home to two historically black colleges or universities, Cheyney University of Pennsylvania and Lincoln University.

Chester County is within the Philadelphia region, which is one of the most robust higher education areas in the country, with major universities like the University of Pennsylvania, Temple University, and Drexel University, and many well-established smaller colleges and universities, such as Villanova University, Haverford College, Bryn Mawr College, and Ursinus College. Philadelphia leads the region in education employment, with approximately 85,000 jobs, although some of these jobs may be health care related because of the way teaching hospitals, such as the Penn Health system, get classified.

FIGURE 40
Estimated Education Employment, 2018

Education Industry, based on Bureau of Labor Statistics	16,510
Estimated Self Employed	179
Total	16,689

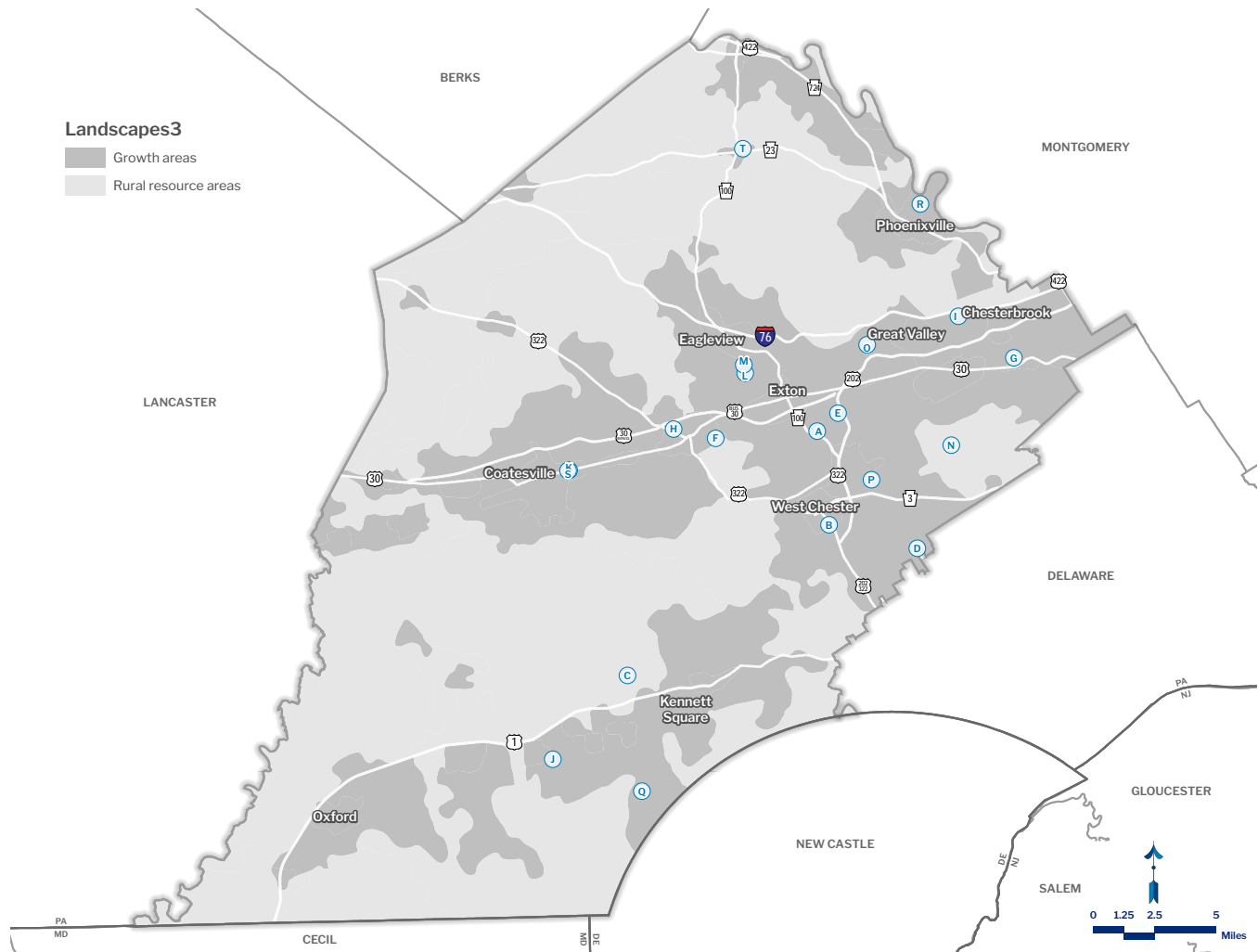
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for education is .76, which is relatively low compared to the nation as a whole. Philadelphia’s location quotient, on the other hand, is 1.4, which reflects the city’s role as a major education center for the country.
- The shift share analysis of employment between 2015 and 2018 indicates that local factors are having a negative impact on change in education employment, which has also been declining nationally.

▼ **FIGURE 41**
Significant Education Employers

Chester County's significant education-related employees are a mix of different types of education providers, including special needs providers, universities, and school districts.



Source: ArcGIS Business Analyst

- | | | |
|---------------------------------------|--|---|
| A. Devereux | H. Downingtown High School West | O. Great Valley High School |
| B. West Chester University | I. Valley Forge Educational Svc | P. West Chester East High School |
| C. New Bolton Center PennVet | J. Avon Grove School District | Q. Kennett Middle School |
| D. Cheyney University | K. Child & Career Development Ctr | R. Renaissance Academy |
| E. Immaculata University | L. Downingtown High School East | S. Coatesville Area Senior High |
| F. Chester County Intermediate | M. Lionville Middle School | T. Owen J Roberts High School |
| G. Conestoga High School | N. The Institutes | |

Energy



The energy sector is a key part of any local economy, keeping businesses, homes, and institutions going. The sector includes electric power, energy production, and water supply/disposal. Alternative or renewable energy sources are an important and growing part of the energy sector, especially as the county works to reduce greenhouse gas emissions. These sources include solar, wind, geothermal, bio-energy, water, and energy efficiency improvements.

For this analysis, the energy sector is broadly defined as utilities, utility system construction, electrical and wiring contractors, plumbing and HVAC contractors, petroleum merchant wholesalers, fuel dealers, pipeline transportation, and utility regulation.

When compared with nearby Pennsylvania counties, Chester County has less employment in the energy sector. Montgomery County, with over 12,000 employees in the sector, leads the region in energy employment.

FIGURE 42
Estimated Energy Employment, 2018

Energy Industry, based on Bureau of Labor Statistics	4,714
Estimated Self Employed	259
Total	4,973

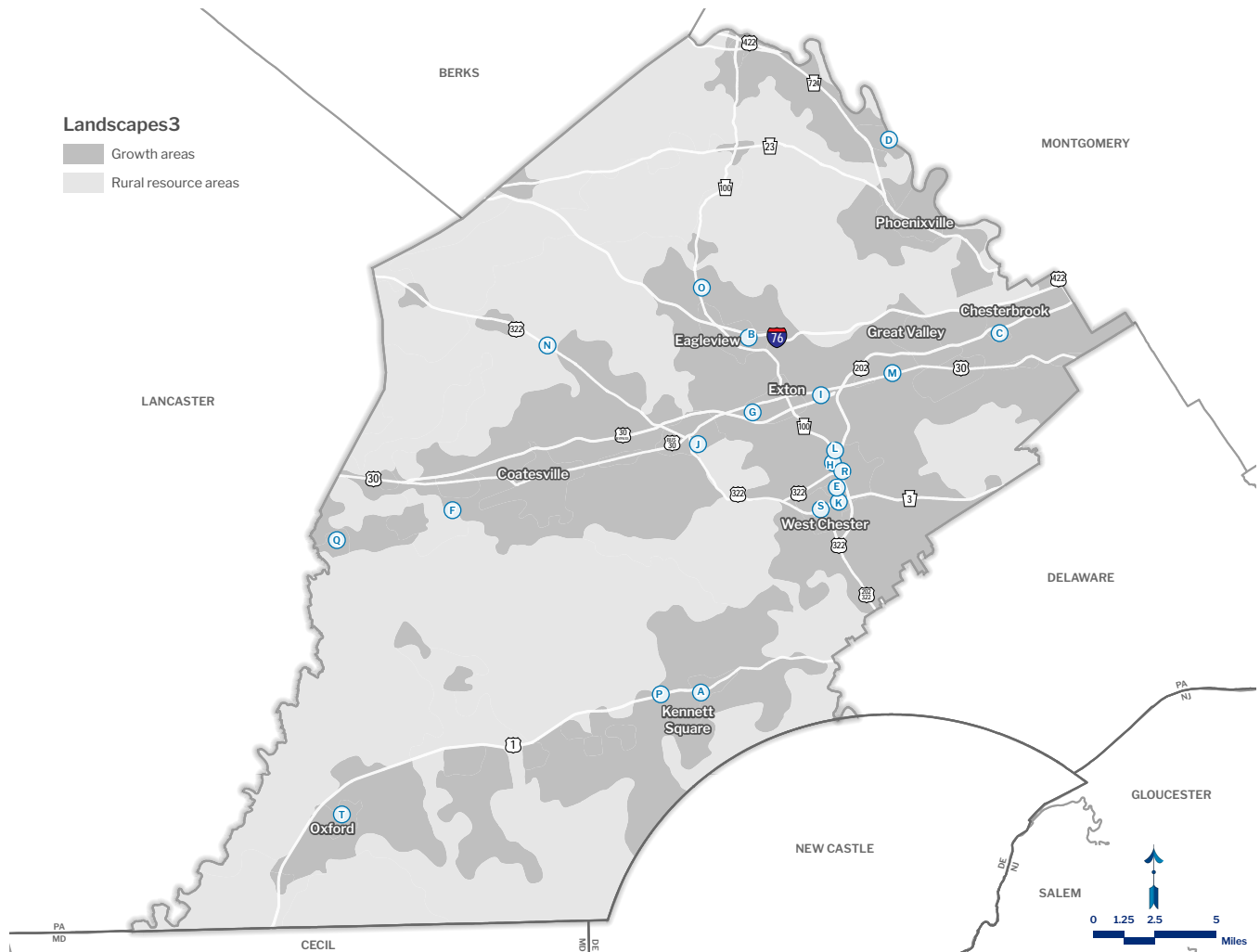
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for energy, broadly defined, is .75, which is relatively low compared to the nation as a whole. Chester County has not historically been a major energy center.
- The shift share analysis of employment between 2015 and 2018 indicates that local factors had little impact on energy employment change. This industry grew moderately in Chester County, following national industry trends of energy employment growth.

▼ **FIGURE 43**
Significant Energy Employers

Chester County's significant energy-related employees are related to the major energy providers and large contractor companies.



Source: ArcGIS Business Analyst

- | | | |
|---|---|--|
| A. Exelon Generation Co Llc | G. Allen-Sherman-Hoff | N. B.L. Myers Bros. |
| B. Servicemark Heating Cooling | H. Communications Construction | O. Mcgovern Environmental, LLC. |
| C. Peco Energy Co | I. Energy Management Systems Inc | P. R & D Construction Ltd |
| D. Spring City Electrical Manufacturing Co | J. Marco Fire Suppression Spclst | Q. Summers & Zim's Inc |
| E. DDM Energy | K. Signature HVAC Inc | R. Aabbots Heating Oil |
| F. Zeke's Oil Co | L. Mauger and Co., Inc | S. HOP Energy |
| | M. Pusey Electric | T. Alger Oil & Propane |

Finance



Chester County is home to a very significant and strong financial industry, with considerable employment, high wages, and a strong Gross Domestic Product. The sector includes businesses involved with portfolio management, commercial banking, investment advisory services, mortgage and loan brokering, credit union banking, and secondary market financing. Chester County’s largest employer, Vanguard, is also the largest of the finance industry businesses, with its global headquarters located in Malvern, PA, employing more than 8,000 people. The

finance industry is heavily concentrated around the central portion of the county including Wayne, Berwyn, Malvern, and West Chester.

For this analysis, the finance sector is defined as finance, insurance, accounting, bookkeeping, and public finance.

When compared with nearby Pennsylvania counties, Chester County has fewer employees than Montgomery or Philadelphia counties but has seen more growth in the financial sector than these places.

▶ FIGURE 44
Estimated Finance Employment, 2018

Finance Industry, based on Bureau of Labor Statistics	22,814
Estimated Self Employed	350
Total	23,164

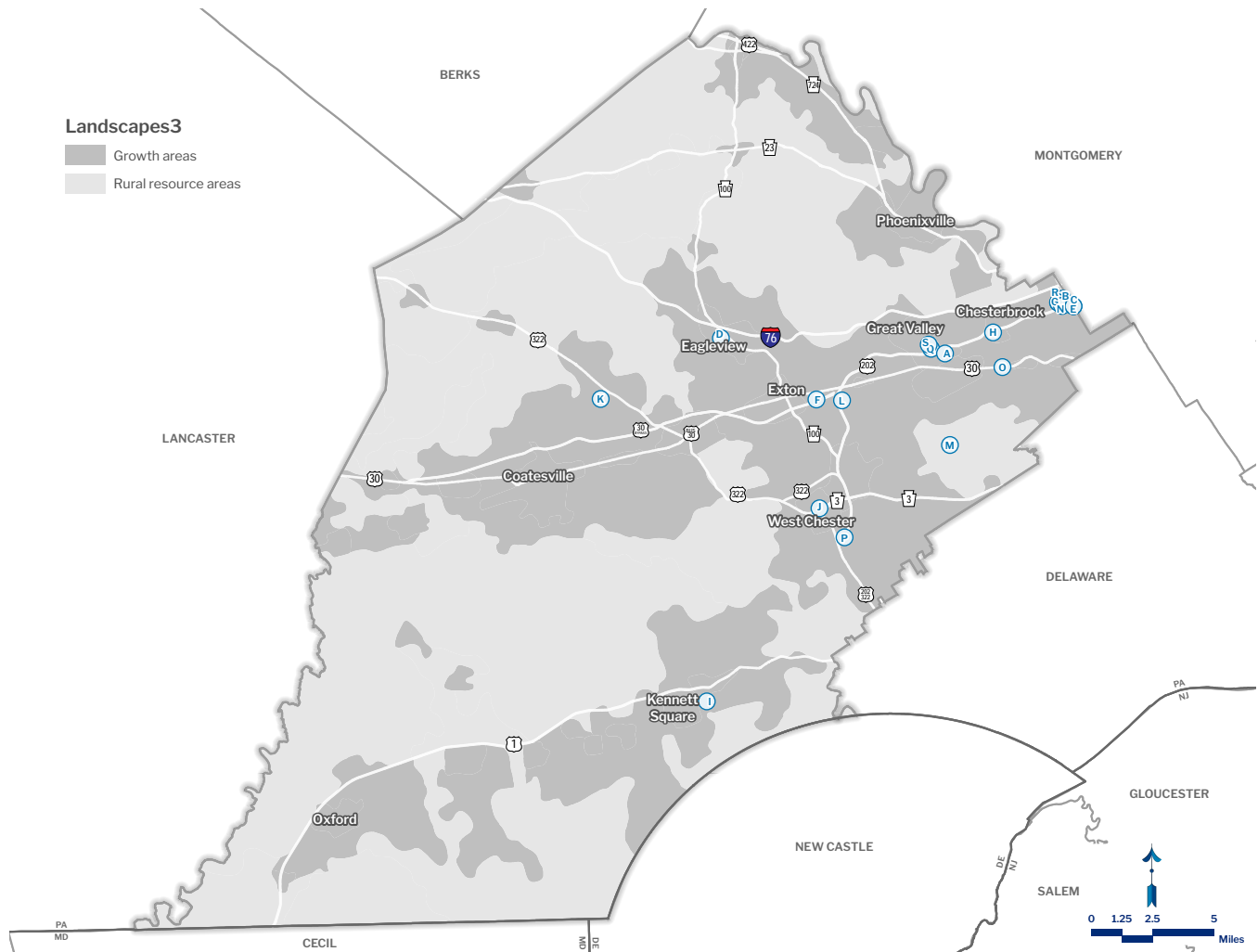
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for finance is 1.83, which is high compared to the nation as a whole. This is also higher than nearby Pennsylvania counties.
- The shift share analysis of employment between 2015 and 2018 indicates that local factors are having a very large impact on finance employment growth in Chester County. Neighboring counties do not have a similar increase. Chester County’s strong growth is due to both Vanguard’s exceptional growth and the strong financial cluster in the county.

▼ FIGURE 45
Significant Finance Employers

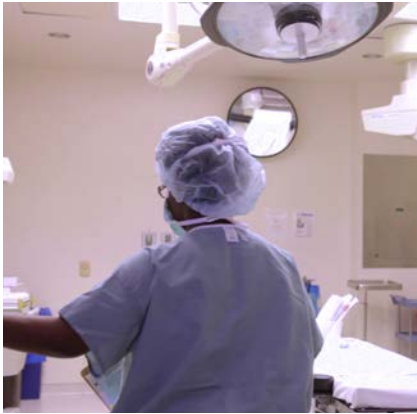
Chester County’s significant finance-related employers include portfolio managers and investment services.



Source: ArcGIS Business Analyst

- | | | |
|---|--|--|
| A. Vanguard Group Inc | H. Brinker Capital Securities Inc | O. DFC Global Corp |
| B. De Lage Landen | I. Chatham Financial Corp | P. Maillie LLP |
| C. US Investment Corp | J. Moody’s Analytics | Q. DFG World Inc |
| D. X L Global Svc | K. Reverse Mortgage Team | R. Hartford Steam Boiler Inspection |
| E. United States Liability Ins | L. PrimePay LLC | S. AC Lordi Consulting Inc |
| F. Automated Financial Systs Inc | M. American Institute for CPCU | |
| G. HSB Inc | N. Liberty Property Trust | |

Health Care



The Health Care industry is an important component of both the business and residential communities in Chester County. In non-urban settings, this sector can be overlooked, but it is actually the largest employment sector in the county. Health care includes hospitals, long-term care facilities (continuing care retirement communities, assisted living, and nursing homes), home health and hospice care, acute rehabilitation centers, emergency medical services, and professional medical offices.

For this analysis, the health care sector is defined as hospitals, ambulatory health care services, nursing and residential care facilities, direct health and medical insurance carriers, home health equipment rental, and public health administration.

Although there has been recent growth in the health care sector, Chester County has fewer employees in health care than Delaware, Lancaster, Montgomery, or Philadelphia counties. Traditionally, Philadelphia, a national leader in the sector with over 120,000 health care jobs, has had the majority of employment; however, many hospital systems in Philadelphia have opened up satellite offices in Chester County, which is leading to the county’s recent growth.

▶ FIGURE 46
Estimated Health Care Employment, 2018

Health Care Industry, based on Bureau of Labor Statistics	28,714
Estimated Self Employed	222
Total	28,936

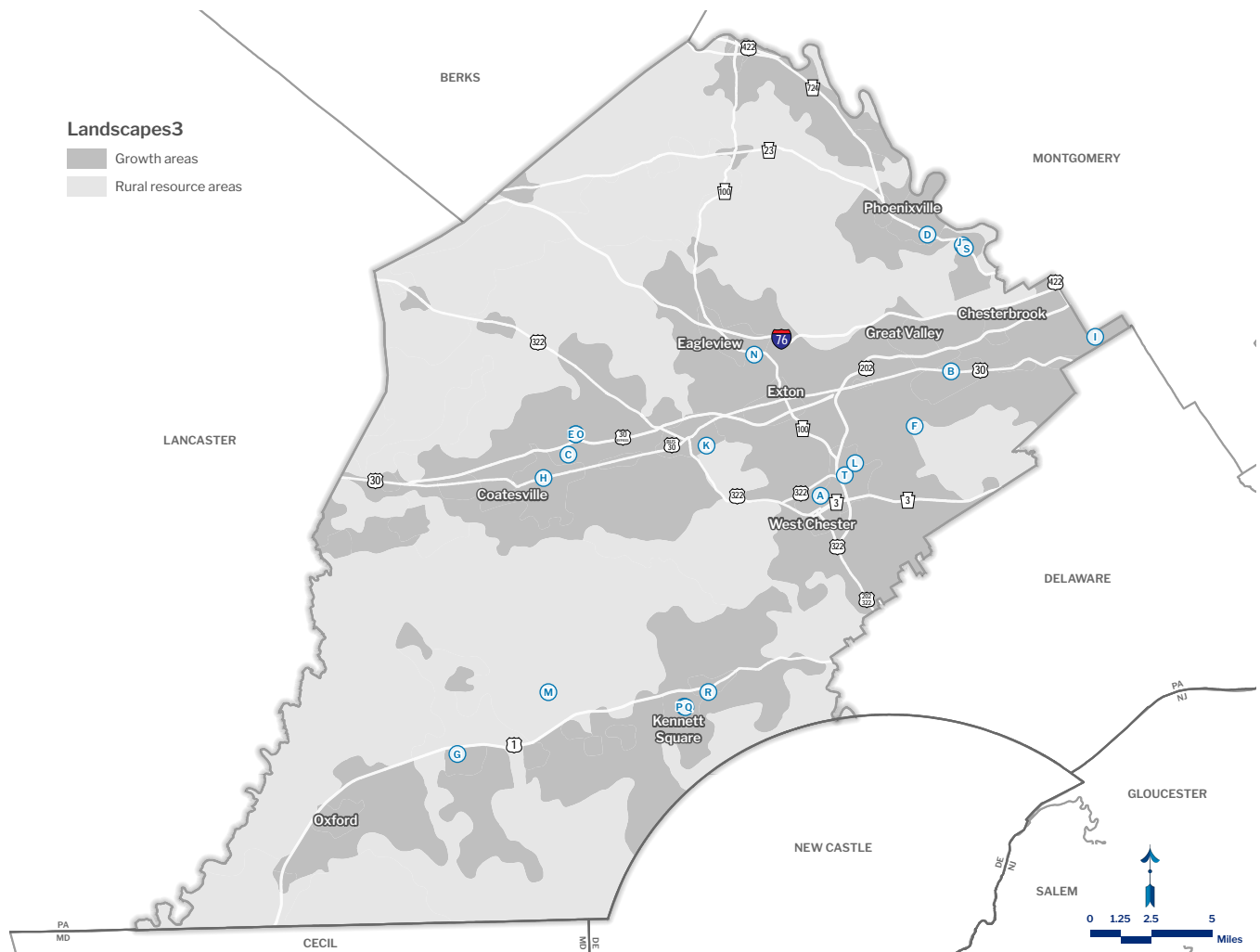
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for health care is .91, which puts the county a little below the nation as a whole. Philadelphia has a location quotient of 1.4 and is the regional leader in health care.
- The shift share analysis of employment between 2015 and 2018 indicates that local factors are positively impacting health care employment growth in Chester County; national and industrial trends are also supporting growth in health care growth in the county. Although Philadelphia is seeing health care growth, it is not as much as would be expected given national trends.

▼ **FIGURE 47**
Significant Healthcare Employers

Chester County's significant health care-related employers are led by hospitals, followed by senior-oriented nursing and assisted living facilities.



Source: ArcGIS Business Analyst

- | | | |
|--|--|------------------------------------|
| A. Chester County Hospital | I. American-European Congress of Ophthalmic Surgery | Brandywine Hosp |
| B. Paoli Hospital | J. Personal Health Care Svc | P. Genesis Healthcare LLC |
| C. Coatesville Veterans Affairs | K. Human Services Inc | Q. Genesis Physician Svc |
| D. Phoenixville Hospital | L. Complete Healthcare Comms Inc | R. West Chester GI Assoc PC |
| E. Brandywine Hospital | M. Twin Pines Health Care Ctr | S. Professional Nursing Svc |
| F. Bryn Mawr Rehab Hospital | N. Southeastern Home Health Svc | T. Arc of Chester County |
| G. Jennersville Regional Hospital | O. Emergency Dept | |
| H. Unique Aid | | |

Information Technology



Chester County is home to a robust tech community, with organizations that produce, process and distribute information as well as a broad set of industries that utilize information technology to run their businesses such as broadcasting, finance, healthcare, biotech and pharmaceuticals. Named the “Top Tech Hub” in Pennsylvania, Chester County has a high concentration of tech-related businesses.

For this analysis, the information technology sector is defined as computer and electronic product manufacturing, computer and software merchant wholesalers, software publishers, data processing and hosting, internet publishing and web search portals, and computer systems design.

Although Montgomery County has the most information technology employees in the area, Chester County has more employees in information technology than Delaware, Lancaster, or Philadelphia counties and has more employment concentrated in this industry. Recently, there has been a decline in information technology employment, which seems to be driven by changing employment at certain large companies like Cerner.

► FIGURE 48
Estimated Information Technology Employment, 2018

Information Technology Industry, based on Bureau of Labor Statistics	13,374
Estimated Self Employed	255
Total	13,629

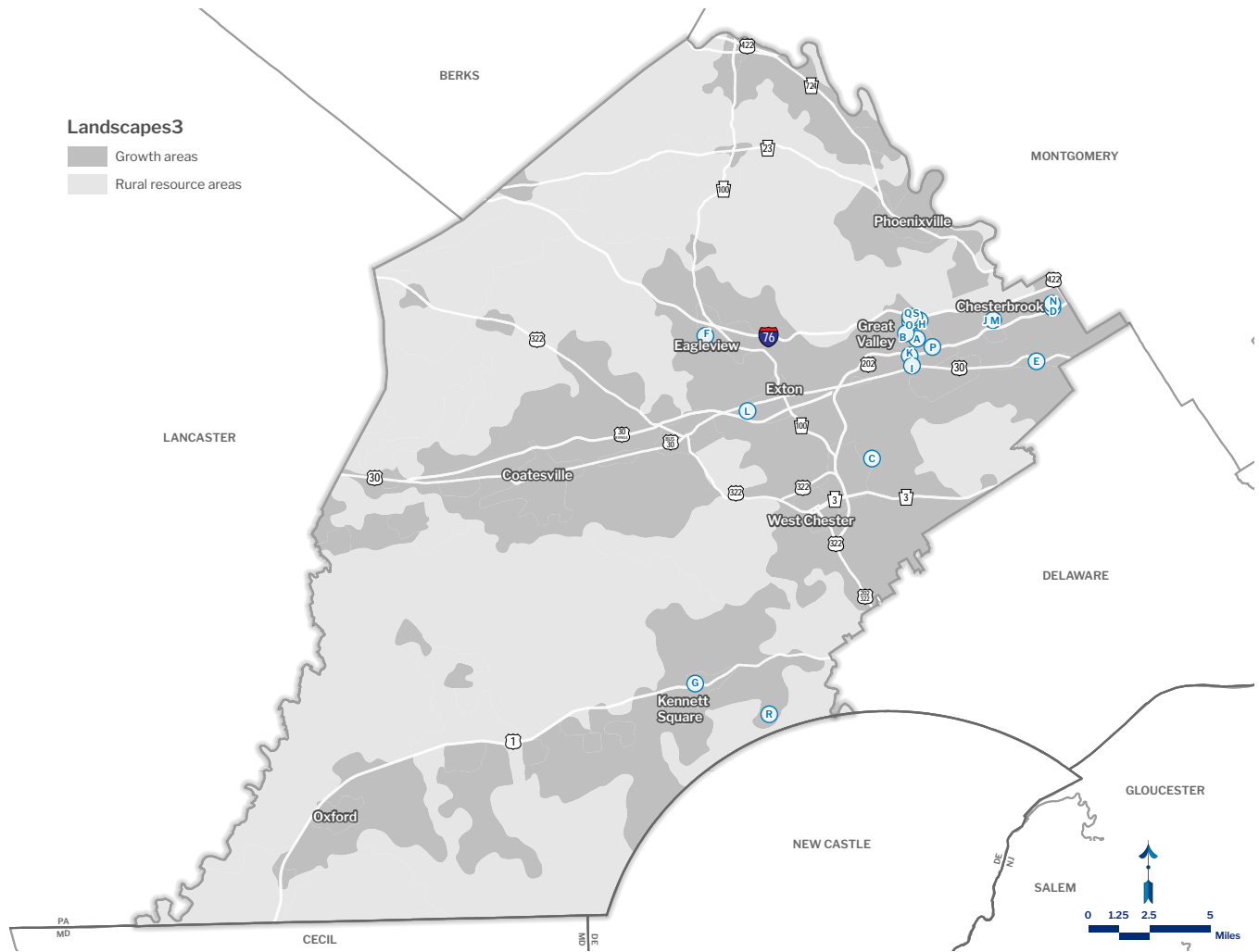
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for information technology is 1.77, which puts the county well above the nation as a whole and is the highest location quotient of nearby PA counties. Chester County remains a key high tech location for the region.
- The shift share analysis of employment between 2015 and 2018 indicates that local factors are negatively impacting information technology employment change. This decline is driven by job losses in computer systems design; meanwhile, software publishing is growing dramatically, with employment more than doubling between 2015 and 2018, increasing from 1,108 employees to 2,303.

▼ FIGURE 49
Significant Information Technology Employers

Chester County’s significant information technology-related employers are led by larger computer systems design firms.



Source: ArcGIS Business Analyst

- | | | |
|--|--------------------------------------|----------------------------------|
| A. Cerner Corp | H. Efactor Inc | O. Frontline Technologies |
| B. Sungard | I. Vishay Intertechnology Inc | P. Unisys Corp |
| C. Communications Test Design Inc | J. Hewlett-Packard | Q. Cenero LLC |
| D. Tivo | K. Cisco Systems | R. General Dynamics Corp |
| E. DecisionOne Corp | L. Neutronics Inc | S. Livery Coach Software |
| F. Bentley Systems Inc | M. Wendover Financial | |
| G. Tri-M Electrical | N. Bracket Global LLC | |

Life Sciences



Chester County is a traditional location for life science businesses. After employment declines in the early part of the century, Chester County is seeing growth in this sector again. The life science cluster includes biotechnology and pharmaceutical research, development, manufacturing, and distribution firms.

For this analysis, the life science sector is defined as pharmaceutical and medicine manufacturing, research and development in biotechnology, medical equipment and supplies manufacturing, medical equipment wholesalers, ophthalmic goods merchant wholesalers, druggist goods merchant wholesalers, analytical laboratory instrument manufacturing, and medical and diagnostic laboratories.

Although Montgomery County has the most life science employees in the area, Chester County has more employees in life sciences than Delaware, Lancaster, or Philadelphia counties. Recently, there has been dramatic growth in life science employment in Chester County.

FIGURE 50
Estimated Life Science Employment, 2018

Life Science Industry, based on Bureau of Labor Statistics	7,103
Estimated Self Employed	11
Total	7,114

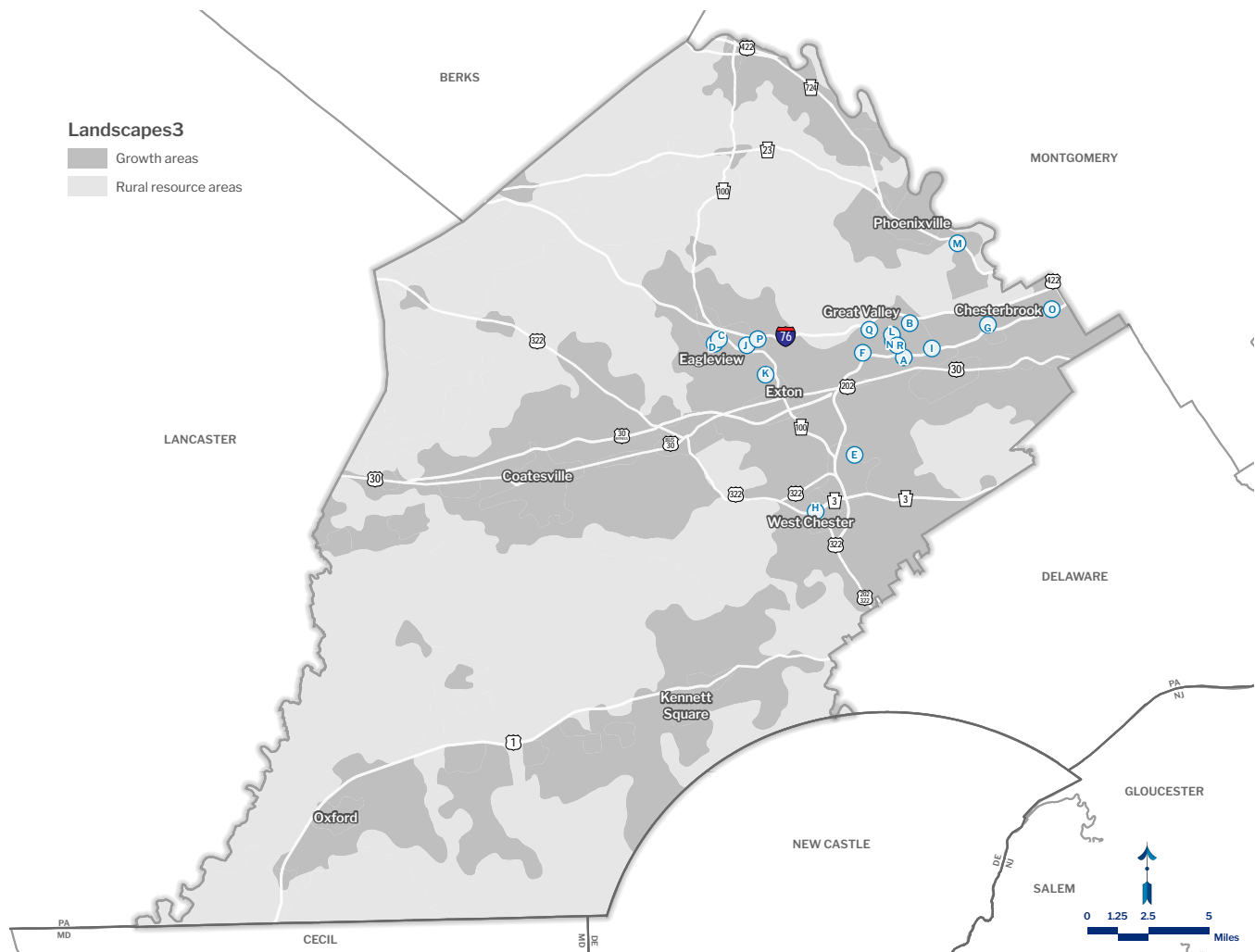
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for life sciences is 3.16, which puts the county significantly above the nation as a whole. Montgomery County, with 22,000 employees in life sciences and a dramatic location quotient of 4.97, leads the region in this sector.
- The shift share analysis of employment between 2015 and 2018 indicates that local factors are very positively impacting life science employment change. This has been driven by research and development in biotechnology.

▼ **FIGURE 51**
Significant Life Sciences Employers

Chester County's significant life science-related employers are led by pharmaceutical companies.



Source: ArcGIS Business Analyst

- | | | |
|--|--|-----------------------------|
| A. Keeler Ltd | H. Mallinckrodt Pharmaceuticals | O. Teleflex Inc |
| B. Endo International | I. Biotelemetry Inc | P. Freedom Medical |
| C. XL Catlin | J. AGC Chemicals Americas Inc | Q. Johnson & Johnson |
| D. West Pharmaceutical Svc Inc | K. Eisai Co, Ltd. | R. McKesson Corp |
| E. DePuy Synthes Co | L. Merit Medical Systems | |
| F. Teva Biologics & Spclty Prdcts | M. Environmental Standards Inc | |
| G. Amerisourcebergen Corp | N. Fujirebio Diagnostics Inc | |

Manufacturing



As the original home of the country’s iron industry, Chester County has a long heritage of manufacturing and includes firms ranging in size from small to large, with an increasing number providing products to international markets. Industry specialization includes precision metal fabrication; electronic components and electronic products; telecommunications equipment supplies; medical products and devices, as well as medical product processing systems; food products, such as snack foods, beverages and baked goods; large blowers, compressors and control technology; chemical processing technologies, pharmaceutical ingredients and fabricated precision metal alloys.

For this analysis, the manufacturing sector is defined as manufacturing and mining.

A number of counties in the region have strong manufacturing sectors, but manufacturing is no longer a dominant industry in the regional economy. Chester County has seen declines in manufacturing employment despite national growth in this sector.

▶ FIGURE 52
Estimated
Manufacturing
Employment, 2018

Manufacturing Industry, based on Bureau of Labor Statistics	18,639
Estimated Self Employed	333
Total	18,972

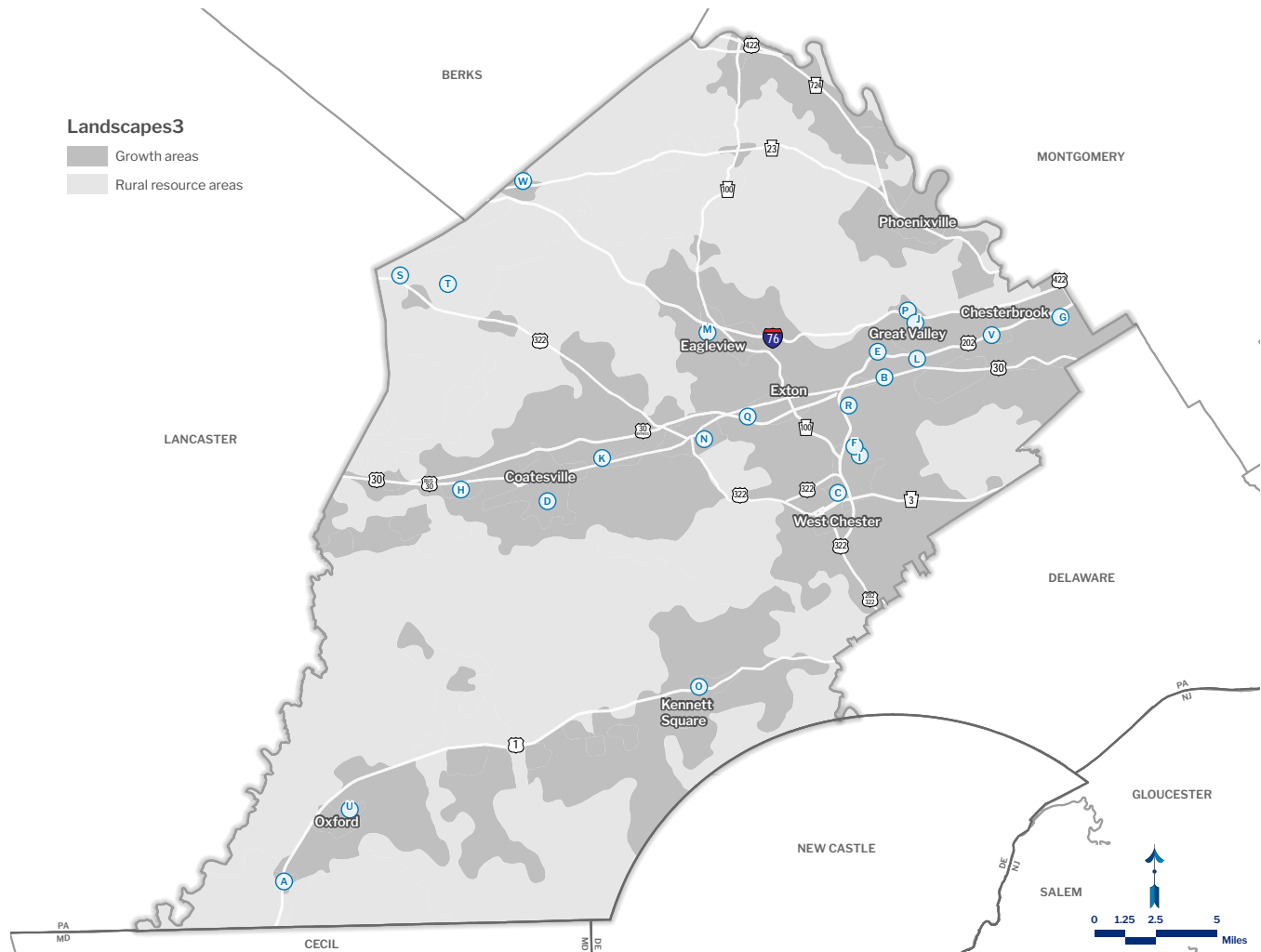
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for manufacturing is .81, which puts the county below the national norm. Locally, only Lancaster County, with a location quotient of 1.72, has a higher share of its workers in manufacturing than the nation as a whole.
- The shift share analysis of employment between 2015 and 2018 indicates that local factors are negatively impacting manufacturing employment change. Locally, only Lancaster County is seeing positive manufacturing employment growth due to local factors, and with over 38,000 manufacturing employees, may eventually surpass Montgomery County, long the leader in the state for manufacturing employment currently with 44,000 employees.

▼ **FIGURE 53**
Significant Manufacturing Employers

Chester County's significant manufacturing-related employers are led by food processing but include a wide array of manufacturers.



Source: ArcGIS Business Analyst

- | | | |
|----------------------------------|-------------------------------------|--------------------------------|
| A. Herr Foods Inc | I. DePuy Synthes Co | Q. Idemia |
| B. Strawberry Bakery | J. Endo Pharmaceuticals Inc | R. Johnson Matthey Inc |
| C. Lasko Products Inc | K. HandiCrafters | S. R-V Industries Inc |
| D. ArcelorMittal USA | L. PQ Corp | T. Suplee Hollow Cereal |
| E. CertainTeed Corp | M. Graco Children's Products | U. Tasty Baking Co |
| F. Mars Drinks/ Lavazza | N. Victory Brewing Co | V. TE Connectivity |
| G. Johnson Matthey Inc | O. Tri- Electrical | W. Whitford Corp |
| H. Sikorsky Aircraft Corp | P. Devault Packing | |

Tourism and Entertainment



The tourism and entertainment industry provides both job opportunities and recreational benefits for its residents. The county is home to Longwood Gardens, the most visited display garden in Pennsylvania and one of the most prominent in the country, as well as other arts and cultural museums, attractions and event facilities. In addition, the county’s main streets and villages attract many visitors to shop and dine.

For this analysis, the tourism and entertainment sector is broadly defined as arts, entertainment, recreation, accommodation, food services, breweries, wineries, baked goods stores, gift stores, and travel services.

Philadelphia, as a convention and tourism and entertainment hub, leads the region in this sector with 77,000 jobs. All of the region, including Chester County, has seen strong growth in this sector, possibly due to the region becoming more popular as a tourist destination.

FIGURE 54
Estimated Tourism and Entertainment Employment, 2018

Tourism Industry, based on Bureau of Labor Statistics	22,304
Estimated Self Employed	505
Other (From estimated YMCA employment)	2,000
Total	24,809

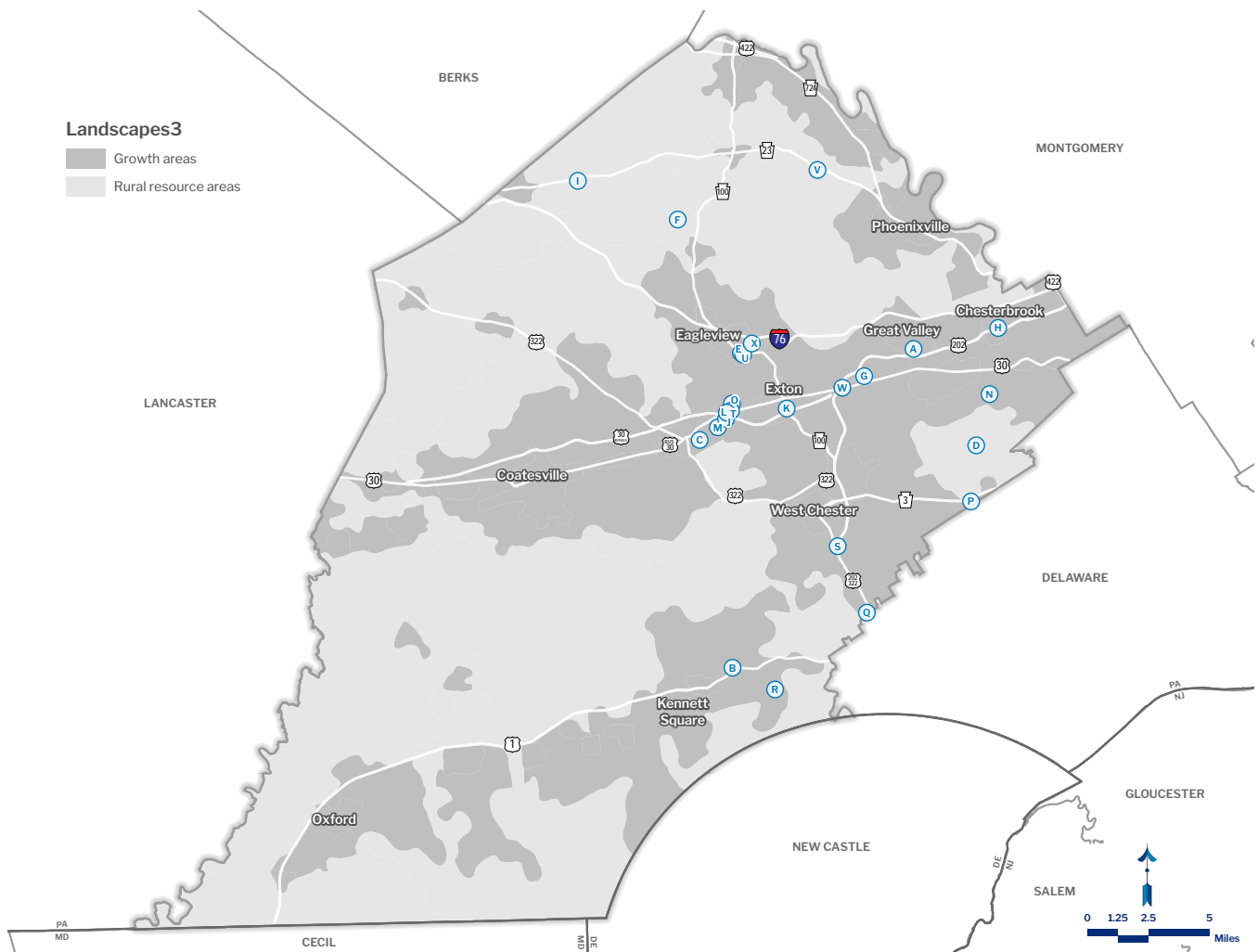
Source: ArcGIS Business Analyst

National Trends using BLS Data

- The location quotient for tourism and entertainment is .75, which puts the county well below the national norm. The region as a whole is below the nation as a whole for tourism and entertainment.
- The Shift Share analysis of employment between 2015 and 2018 indicates that local factors are positively impacting tourism and entertainment growth, as are national growth and industry trends. Chester County added nearly 1,800 tourism related jobs between 2015 and 2018.

▼ **FIGURE 55**
Significant Tourism and Entertainment Employers

Reflecting the diversity of the industry and its tendency to have many smaller employers, Chester County's significant tourism-related employers are a mix of businesses, although hotels and restaurants are most common.



Source: ArcGIS Business Analyst

- | | | |
|--|--|--|
| A. Desmond Hotel & Conference Ctr | I. HMS Host | Q. Dilworthtown Inn |
| B. Longwood Gardens | J. Olive Garden Italian Kitchen | R. Inn At Mendenhall Bw Premier |
| C. Victory Brewing Co | K. On the Border Mexican Grill | S. Quality Inn-Suites Conference |
| D. White Manor Country Club | L. Texas Roadhouse | T. Cracker Barrel Old Country Str |
| E. Hilton Hotel | M. Downingtown Country Club | U. Red Robin Gourmet Burgers |
| F. Sheraton | N. Waynesborough Country Club | V. Seven Stars Inn |
| G. Chester Valley Golf Club | O. Whitford Country Club | W. Sheraton Great Valley Hotel |
| H. Embassy Suites | P. Arrowhead Day Camp | X. Vickers Restaurant |



TALLWELL
TRUSSES OR ROOFING

TALLWELL

TALLWELL

SM 12
11



REAL ESTATE CHARACTERISTICS

This chapter identifies a few real estate characteristics, including residential construction, housing sale prices, non-residential construction, office market conditions, industrial market conditions, and retail market conditions.



Housing Construction

Since 2012, approximately 1,400 new units were built each year.

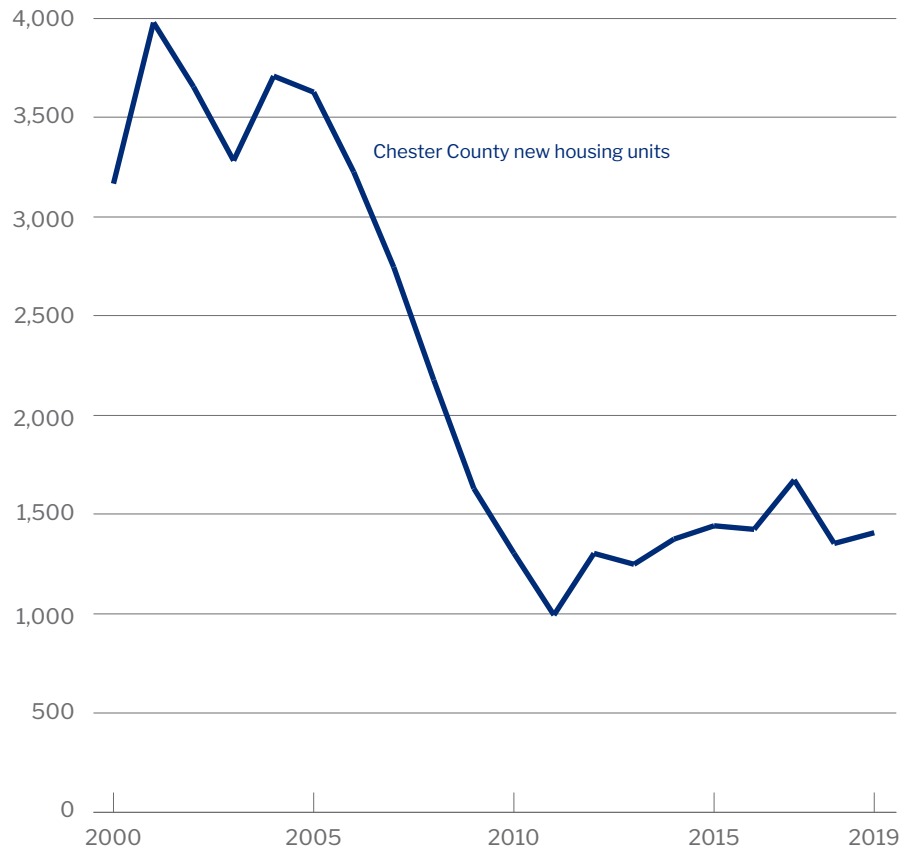
Chester County saw large amounts of new housing units completed in the early 2000s, adding 2,750 to 4,000 new units annually. Completed housing construction drastically declined in 2009 after the recession and has largely remained consistent at 1,250 to 1,450 new units annually thereafter. Construction of new apartment units saw a surge in 2014-2017, adding 400 to 700 new units annually, but has since declined in 2018 and 2019 to between 110 and 225 units. Multi-family apartment units are expected to increase in 2020, with the completion of multiple projects currently under construction.

Chester County collects data through Assessment on built units; units are considered built once fully assessed.

▼ **FIGURE 56**

New Housing Units

	New Housing Units	Cumulative New Housing Units
2000	3,168	3,168
2001	3,980	7,148
2002	3,656	10,804
2003	3,284	14,088
2004	3,710	17,798
2005	3,629	21,427
2006	3,227	24,654
2007	2,747	27,401
2008	2,178	29,579
2009	1,632	31,211
2010	1,306	32,517
2011	994	33,511
2012	1,305	34,816
2013	1,250	36,066
2014	1,377	37,443
2015	1,444	38,887
2016	1,426	40,313
2017	1,675	41,988
2018	1,355	43,343
2019	1,409	44,752



Source: Chester County Assessment Data

Construction of new apartment units drastically decreased in 2018 and 2019; however, many apartment units are in the pipeline and currently under construction.

▼ FIGURE 57
Housing Type, 2019

	Total	Single Family Detached	Single Family Attached	Apartments
New Units	1,409	600 (43%)	588 (42%)	221 (16%)

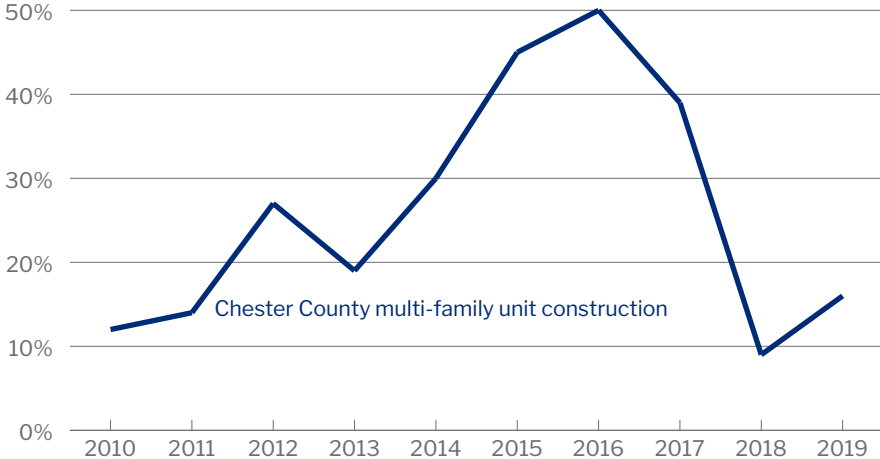
Source: Chester County Building Permits and Assessment Data

▼ FIGURE 58

Multi-Family Construction (Percent of Total New Units)

	Multi-family units built	Multi-family units built (% of total)
2010	157	12%
2011	141	14%
2012	355	27%
2013	235	19%
2014	415	30%
2015	643	45%
2016	708	50%
2017	656	39%
2018	116	9%
2019	221	16%

Source: Chester County Assessment Data



Home Sales

Housing sales have been increasing slowly since 2011.

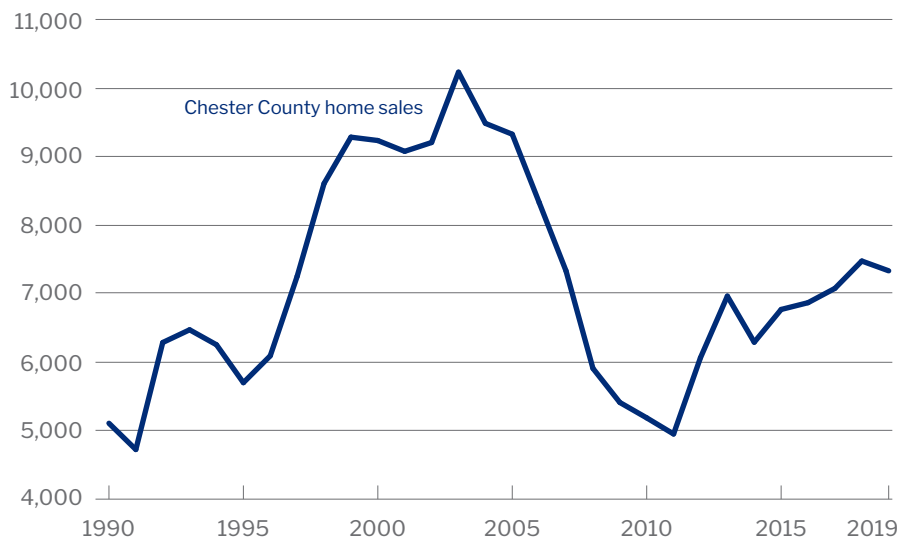
▼ FIGURE 59

Annual Home Sales

Year	Number of Sales	Percent Change from Prior Year
2000	9,241	-0.50%
2001	9,083	-1.70%
2002	9,212	1.40%
2003	10,240	11.20%
2004	9,492	-7.30%
2005	9,333	-1.70%
2006	8,336	-10.70%
2007	7,335	-12.00%
2008	5,911	-19.40%
2009	5,413	-8.40%
2010	5,188	-4.20%
2011	4,952	-4.50%
2012	6,067	22.50%
2013	6,967	14.80%
2014	6,293	-9.70%
2015	6,772	7.60%
2016	6,871	1.50%
2017	7,080	3.00%
2018	7,480	5.60%
2019	7,337	-1.90%

Source:
Chester County Building Permits and Assessment Data

Chester County home sales increased drastically in the early 2000s but began decreasing in 2004, hitting a low point during the Great Recession. Home sales continued to decrease through 2011, but have been mostly increasing since, with more than 7,000 sales each year.



Housing Values

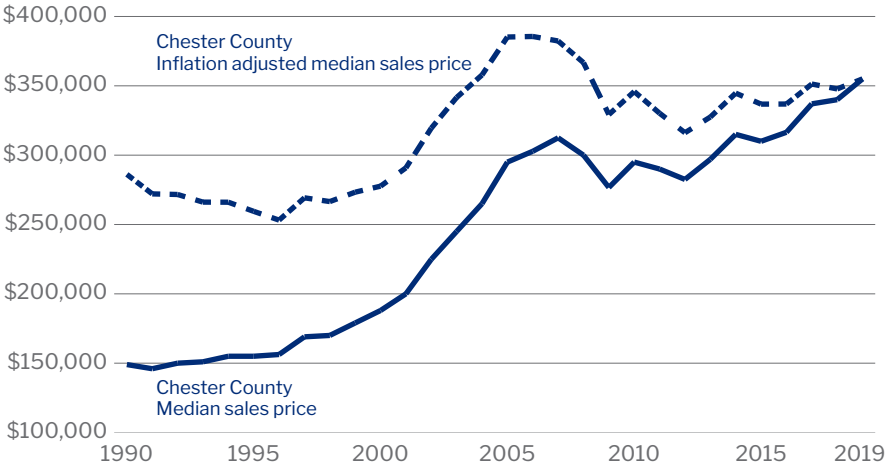
Chester County’s median housing value is the highest in the state.

Chester County’s median housing sale price has increased by 24% since 2000, adjusting for inflation, with the highest median sale price in 2006, when there was an inflation-adjusted value of \$385,588. This is significantly higher than the 2019 value of \$355,000. In fact, from 2010 to 2019, the median inflation-adjusted housing value increased by only \$9,131, with small annual increases and decreases.

▼ FIGURE 60
Annual Home Sales Median Price

Year	Inflation Adjusted Median Sales Price	Inflation Adjusted % Change
2010	\$345,869	5.00%
2011	\$330,224	-4.50%
2012	\$316,179	-4.30%
2013	\$327,490	3.60%
2014	\$344,730	5.30%
2015	\$336,801	-2.30%
2016	\$336,874	0.00%
2017	\$351,285	4.30%
2018	\$347,769	-1.00%
2019	\$355,000	2.10%

Source: Chester County Building Permits and Assessment Data



Despite drastic increases in median sale price since 1990, 2019 median sale prices were not the highest they have ever been, when adjusted for inflation.

► FIGURE 61
Change in Home Sales Median Price

	Increase in Inflation-Adjusted Value	Percent Change
Difference 1990 -1999	\$68,834	24%
Difference 2000-2009	\$77,350	28%
Difference 2010-2019	\$9,131	3%

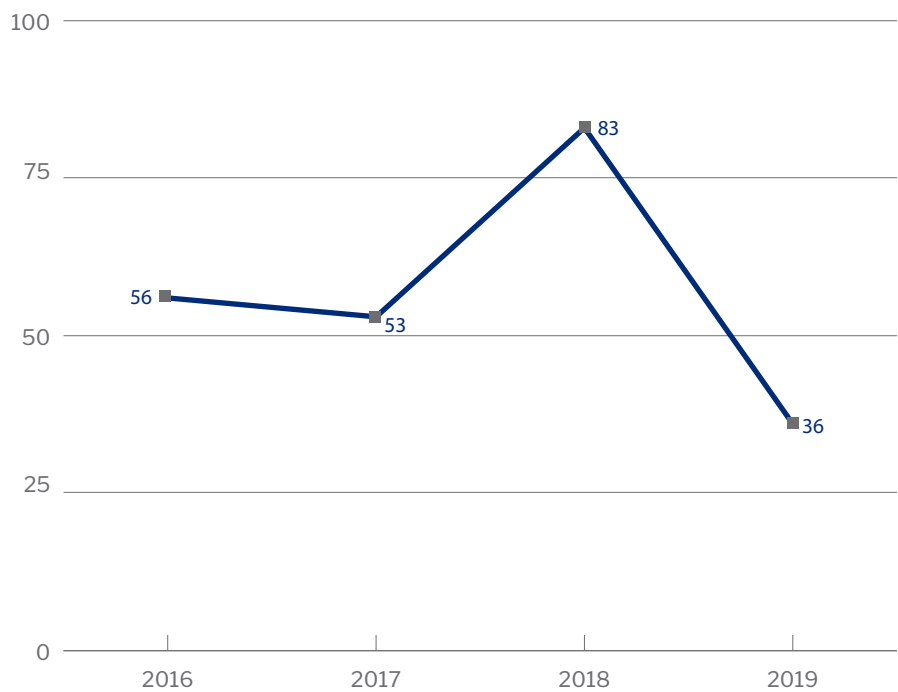
Source: Chester County Building Permits and Assessment Data

Non-Residential Construction

2019 saw a drop in non-residential projects and square feet added.

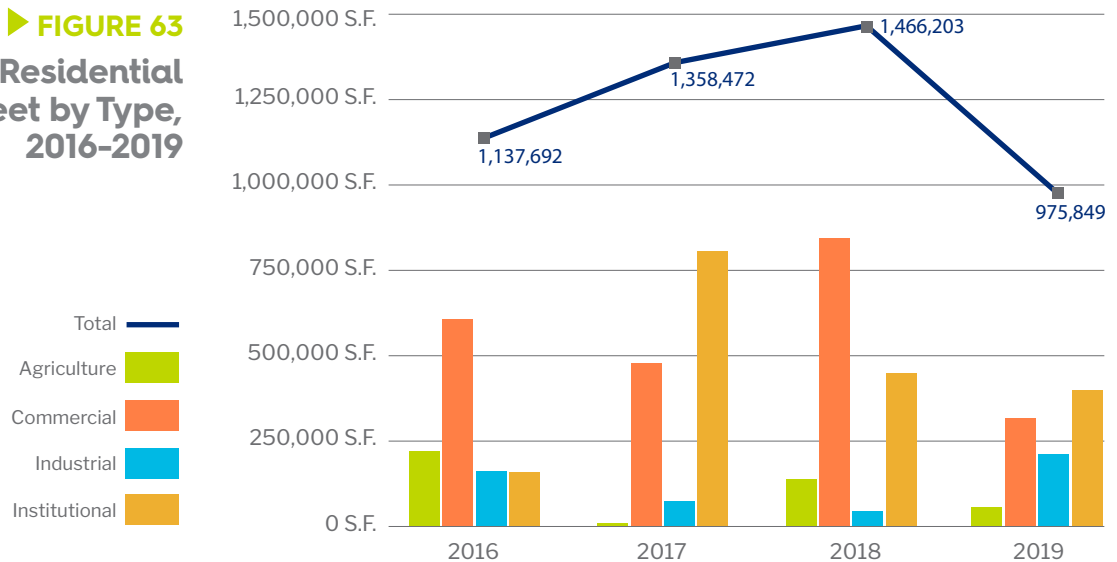
Non-residential projects and square feet added increased from 2016 through 2018, and saw a drop in 2019. Commercial projects made up the majority (45%) of non-residential square feet added between 2016-2018, with 2,236,779 square feet added.

► **FIGURE 62**
Total Non-Residential
Projects, 2016-2019



Source: Chester County Building Permits and Assessment Data

► **FIGURE 63**
**Total Non-Residential
 Square Feet by Type,
 2016-2019**



Source: Chester County Building Permits and Assessment Data

▼ **FIGURE 64**

Largest Non-Residential Construction Projects, 2016-2019

Year Built	Building Square Feet	Project Name	Municipality	Type
2019	250,905	Penn Medicine Chester County Hospital	West Goshen Township	Institutional
2018	240,000	Vanguard Malvern West Expansion	East Whiteland Township	Commercial
2017	229,179	Penn Medicine Chester County Hospital	West Goshen Township	Institutional
2017	181,481	Brightview - Wayne	Tredyffrin Township	Institutional
2017	174,325	Phoenixville Area School District	Schuylkill Township	Institutional
2018	139,406	Sage Atwater	Tredyffrin Township	Institutional
2019	137,600	CTDI Sadsbury	Sadsbury Township	Industrial
2017	135,965	Life Time Fitness, Inc.	Tredyffrin Township	Commercial
2016	121,575	8 Lee Boulevard	East Whiteland Township	Commercial
2019	109,800	Great Valley Corporate Center - Chesterfield Parkway (Lots 2-5)	Tredyffrin Township	Commercial
2016	92,000	West Chester University Business & Public Affairs Center	West Chester Borough	Institutional
2018	88,937	Kennett Square Specialities, LLC	Kennett Township	Agricultural
2018	85,800	East Coventry Elementary School	East Coventry Township	Institutional
2019	80,235	Longwood Gardens Nursery Greenhouse	Kennett Township	Institutional
2016	72,720	Lot 2 Clover Mill Road Industrial Development	West Whiteland Township	Industrial
2018	72,000	Eagleview Crossing-SpringHill Suites	Uwchlan Township	Commercial
2016	70,800	Eagleview Lots 10 & 11	Upper Uwchlan Township	Commercial
2017	69,139	Exton Elementary School Expansion	West Whiteland Township	Institutional
2016	65,174	Ashbridge Commons Hotel	East Caln Township	Commercial
2018	65,000	Oppy Property	New Garden Township	Commercial

Source: Chester County Building Permits and Assessment Data

Office Building Market

Chester County has a strong office market, although the vacancy rate of 10% is high.

The office market in Southeastern PA is reasonably strong, with rents around \$27 a square foot per year and many companies competing for office space. Chester County falls into this market and is attractive to companies that want to be in the Philadelphia market. Lancaster County, with lower rents and vacancy rates, is really a different market from the Philadelphia region and Chester County.

Overall, Chester County has a large and competitive office market, with concentrations of offices in Chesterbrook, the Main Line, Great Valley/Malvern, the West Chester area, and Exton/Lionville. There are also scattered offices in developed parts of southern, western, and northern Chester County. These offices are typically owner-occupied.

Like Montgomery County, Chester County has a relatively high vacancy rate. Some of this vacancy is due to the many offices built in the 1980s and 1990s that are now being retrofitted and modernized to address demand for new technology and collaborative work environments.



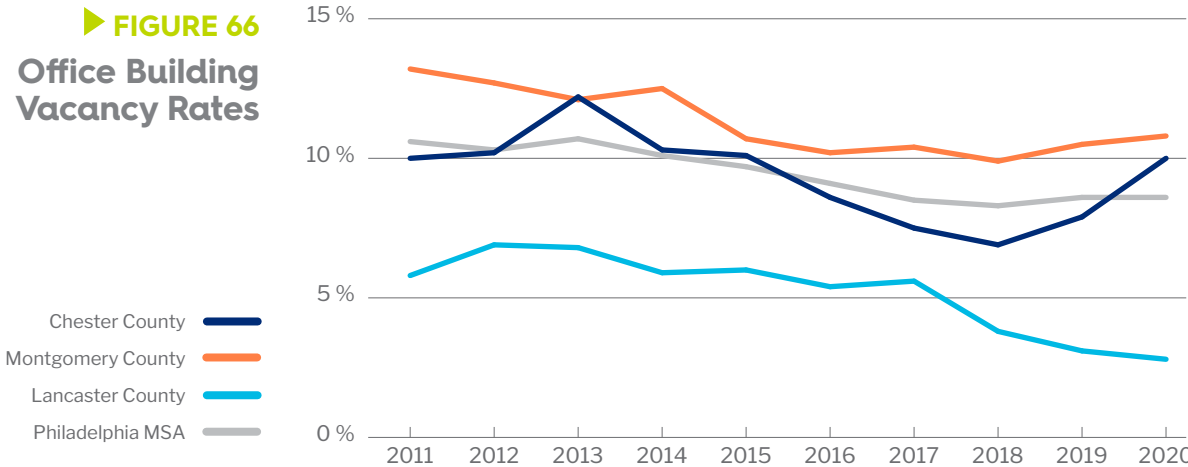
Chester County Economic Development Council

► **FIGURE 65**
Office Building
Characteristics,
May 2020

	Number of Buildings	Rentable Building Square Footage	Average Vacancy Rate	Average Annual Rental Rate Per Square Foot
Chester County	1,624	31,583,877	10.00%	\$27.95
Berks County	753	12,753,255	4.00%	\$18.85
Bucks County	1,683	20,076,494	10.5%	\$22.45
Delaware County	1,286	22,497,738	6.90%	\$27.58
Lancaster County	1,058	14,440,949	2.80%	\$19.20
Montgomery County	3,307	62,967,011	10.80%	\$27.62
Philadelphia County	2,959	102,253,897	7.00%	\$29.55
Philadelphia MSA	15,654	317,497,607	8.60%	\$26.67

Source: Costar

► **FIGURE 66**
Office Building
Vacancy Rates



Source: Costar

Retail Building Market

Chester County's retail primarily serves local community needs.

The retail market in Southeastern PA is dominated by Montgomery County and Philadelphia, with the other counties in the region primarily having smaller malls and shopping centers that are focused on community needs.

Chester County falls into a community-focused retail category, with retail centers scattered around major population hubs. The county is surrounded by major shopping areas to the north, east, and south, including King of Prussia, the Route 422 Corridor with its outlets and new centers, Concordville in Delaware County, and malls and shopping centers near Wilmington.

Exton, with its mall and large shopping centers, is the primary retail hub for the county. Exton is anchored by the Exton Square Mall, and the owner of the mall is addressing high vacancy rates by adding new land uses and businesses. Recently, entertainment uses and a medical center were added to the core mall building, while the perimeter now has a new Whole Foods and an apartment building. The Coventry Mall in North Coventry has a new owner who is bringing new retailers and investment to the mall.

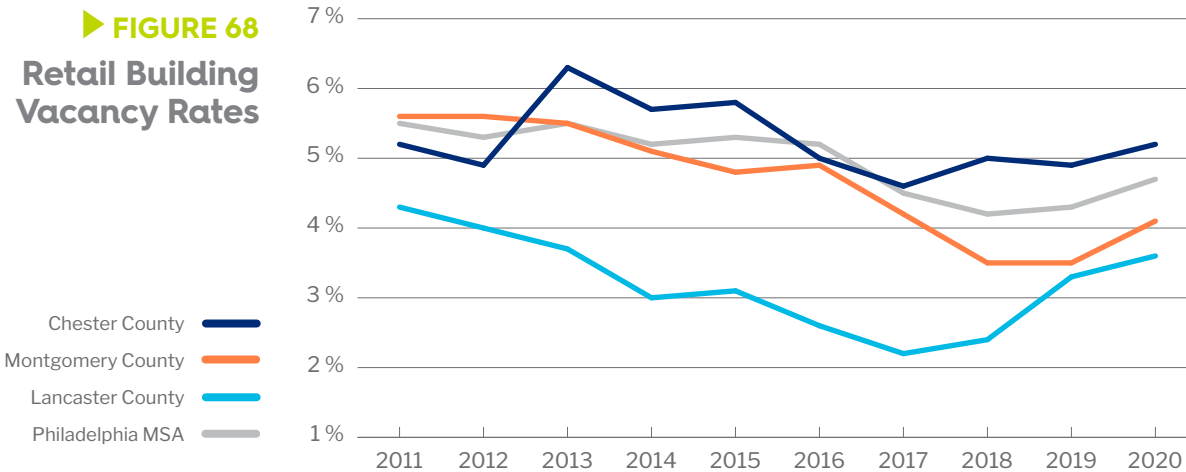


▶ FIGURE 67
Retail Building
Characteristics,
May 2020

	Number of Buildings	Rentable Building Square Footage	Average Vacancy Rate	Average Annual Rental Rate Per Square Foot
Chester County	2,033	26,736,331	5.2%	\$19.44
Berks County	1,664	23,509,976	8.4%	\$10.95
Bucks County	2,503	33,969,908	5.7%	\$16.62
Delaware County	2,545	24,262,627	4.2%	\$15.76
Lancaster County	1,898	25,960,214	3.6%	\$14.20
Montgomery County	4,560	56,979,157	4.1%	\$17.42
Philadelphia County	11,287	75,109,251	3.2%	\$21.54
Philadelphia MSA	32,295	325,629,450	4.7%	\$17.48

Source: Costar

▶ FIGURE 68
Retail Building
Vacancy Rates



Source: Costar

Industrial Building Market

Chester County has a varied industrial market, with relatively high rents.

The industrial market remains an important part of the Philadelphia region's commercial real estate sector. Over time, industrial uses have shifted from heavy industry to lighter industrial and manufacturing, although some heavy industry remains, such as the ArcelorMittal plant in South Coatesville and Coatesville. Much of Chester County's modern industrial space is advanced manufacturing, such as medical products, pharmaceuticals, and other specialized manufacturing.

Industrial uses are spread around the county, with major concentrations of newer buildings in corporate parks, including ones in Exton, West Chester, and Lionville.

Around the country, mega-warehouses have been a major driver of new industrial construction, but, locally, these warehouses have mostly been locating in south-central PA, the Lehigh Valley, and southern New Jersey. Chester County has not had major new warehouse space delivered recently, which could be due to the county's price of land and relative lack of interstate highway interchanges. The most likely location for major new warehouses is near the Route 100 and PA Turnpike interchange.



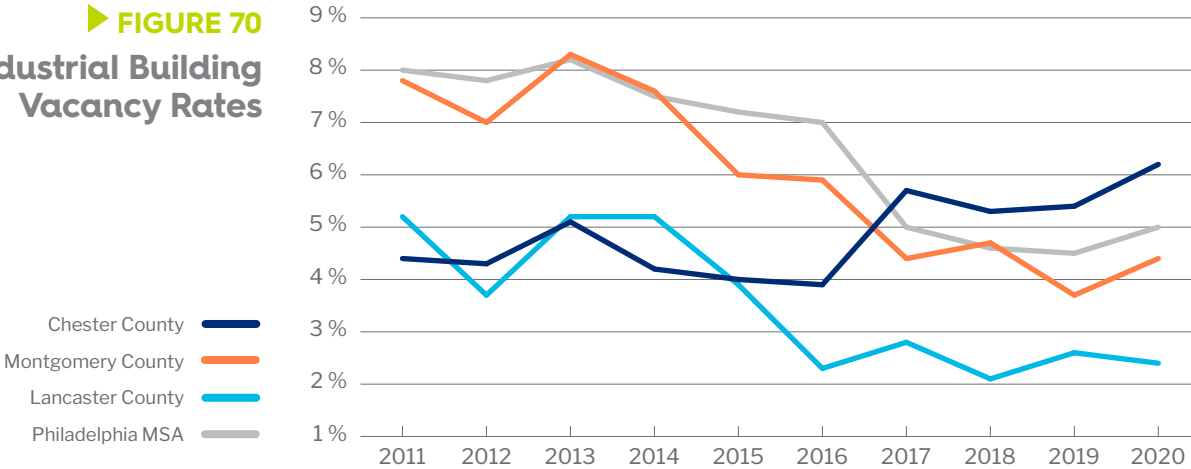
Chester County Economic Development Council

► FIGURE 69
Industrial Building
Characteristics,
May 2020

	Number of Buildings	Rentable Building Square Footage	Vacancy Rate	Average Annual Rental Rate Per Square Foot
Chester County	722	26,799,709	6.2%	\$8.23
Berks County	720	, 41,419,347	7.8%	\$3.92
Bucks County	1,518	61,204,064	3.2%	\$6.09
Delaware County	719	25,243,536	5.1%	\$5.43
Lancaster County	1,072	56,904,306	2.4%	\$4.72
Montgomery County	1,715	66,993,792	4.4%	\$5.41
Philadelphia County	2,823	112,683,888	5.8%	\$4.63
Philadelphia MSA	10,814	449,895,477	5.0%	\$5.54

Source: Costar

► FIGURE 70
Industrial Building
Vacancy Rates



Source: Costar

Data Sources

Although the report aims to use the best and most recent data available, data sets will present different issues. Data will have exclusions, have delays in availability, be subject to human error, and may be incomplete. Here is an overview of data sources, notes, and identified potential inaccuracies:

Bureau of Labor Statistics (BLS)

Source for unemployment rates, and data by industry including establishments, employment, and wages. Data for private and public establishments were combined. Data does not include proprietors, unincorporated self-employed, and some agricultural employment. BLS suppresses data where it would identify individual businesses. Non-seasonally adjusted data was used. The BLS is also the source of unemployment rates, with the most recent data from June 2020.

U.S. Census Data

The Census is the source for resident population data (population, income, and commute, education, race, occupation) as well as establishments by size. One year estimates were used for population data, with the most recent available year being 2018. Statistics of US Businesses (SUSB) was used for establishment data, the most recent available data is from 2017.

Bureau of Economic Analysis (BEA)

The BEA is the source for Gross Domestic Product (GDP) data. Real GDP was used, which presents data adjusted to account for inflation, using 2012 as a base year. The GDP data provides estimates of the value of goods and services produced in an area. Raw GDP for states and the nation is presented in millions, county and MSA data is presented in thousands. All data was adjusted for the report. The most recent available data is from 2018.

Chester County Data

Building permits and assessment data were cross referenced and combined to compile residential and non-residential construction

and sales data. Additional outreach to municipalities, site visits, and aerial image review was completed to ascertain status of construction projects. Estimated year of construction was used for non-residential projects built prior to 2019 where annual aerial photography was unavailable. Residential and non-residential construction data is updated annually, with the most recent data year being 2019.

CoStar

Real estate data (rent and vacancy rates) were collected using CoStar data. CoStar uses calls, property canvassing, and photographs to gather data. Due to the large number of properties, data may not be fully up to date or exhaustive. Data is updated continuously.

ArcGIS Business Analyst

Data on individual establishments including location, name, and employment size was taken from ArcGIS Business Analyst. The ArcGIS data is drawn from Infogroup, which uses business sources, directories, and direct contact for information. The data is updated quarterly, with the most recent data availability being January 2020. Infogroup data estimates employment and sales data based on comparables where data is unavailable. The business list is not exhaustive of all establishments. As the data is drawn from different sources, and businesses will report data differently, data display varies. Individual locations of larger entities may list employment for the local location, or full entity. Data often lists multiple establishments under the same enterprise separately, which may cause inaccuracies in largest employers data.

Methodology

Bureau of Labor Statistics Data

Data for employment and wages is from the Quarterly Census of Employment & Wages (QCEW). The BLS provides raw data separated by employment type (private, local government, state government, and federal government). To obtain employment by industry numbers, all employment types were combined. To obtain annual average wage, total wages for all employment types by industry were combined and then divided by the summed employment figures.

Location Quotient

Location quotients were calculated using the formula:

$$\frac{(\text{local industry employment} / \text{local total employment})}{(\text{U.S. industry employment} / \text{U.S. Total employment})}$$

from BLS data

Example businesses were generated through ArcGIS Business Analyst data. Industry NAICS codes were matched to the NAICS codes attached to establishments in ArcGIS Business Analyst.

Shift Share Analysis

For both the employment and GDP shift share numbers the following formulas were used:

National Share

$$\frac{2015 \text{ local industry amount} * 2018 \text{ U.S. total amount}}{2015 \text{ U.S. total amount}}$$

Industrial Share

$$\frac{2015 \text{ local industry amount} * 2018 \text{ U.S. industry amount}}{2015 \text{ U.S. industry amount} - \text{National Share}}$$

Regional Share

$$\frac{2015 \text{ local industry amount} * 2018 \text{ local industry amount}}{2015 \text{ local industry amount} - 2018 \text{ U.S. industry amount} / 2015 \text{ U.S. industry amount}}$$

"Expected" Rates

$$\text{Regional Share} / 2015 \text{ industry amount}$$

Example businesses were generated through ArcGIS Business Analyst data. Industry NAICS codes were matched to the NAICS codes

attached to establishments in ArcGIS Business Analyst.

The value of the expected rate of change was used to determine strength of influence of local factors, as defined as:

- Very High: >70%
- High: 31%-70%
- Medium: 11%-30%
- Low: 0-10%

Employer Matching

ArcGIS Business Analyst data was used to identify employers where called out in the document. NAICS codes were used to match employers to data. To identify largest employers in an industry, employers with highest employment numbers as reported in the ArcGIS Business Analyst data were used. For enterprises with multiple establishments, establishments were counted individual unless identified as major employers through staff review.

Self-Employed Estimate

BLS employment data does not include sole proprietors or unincorporated self employed. Data from the 2013 NETS database was used to provide an estimate of self-employed sole-proprietors not included in the BLS data. The number of establishments with only one employer was calculated for each industry grouping, matched by NAICS codes. The number of establishments with one employee was divided by total number of establishments in the key industry to obtain a rate of self employment. The rate of self-employment was multiplied by 1.0569, to adjust for the change in self employment occurring nationally since 2013. The result was multiplied by the 2018 BLS employment data as an estimate of self-employment by key industry in 2018.

Methodology (continued)

Residential Construction

Residential construction numbers were generated by sales and construction data provided by the Chester County Assessment Office. Data includes all 2019 records added through May 2020.

Non-Residential Construction

Land development proposals submitted to the Chester County Planning Commission were used to identify potential projects, square feet added, and non-residential type. Assessment data and historical aerial imagery were cross referenced with identified land developments to ascertain status for projects proposed prior to 2019. For land developments not identified as built through the prior process and 2019 land developments, the Chester County Planning Commission obtained information through municipal outreach and site visits. Type of project was checked using internet searches and site visits.

NAICS Codes

Agriculture and Food Production

11 - Agriculture, forestry, fishing, hunting
 311 - Food manufacturing
 312 - Beverage and tobacco manufacturing
 3253 - Agricultural chemical manufacturing
 333111 - Farm machinery manufacturing
 42382 - Farm equipment wholesalers
 42448 - Fruit and vegetable merchant wholesalers
 4245 - Farm product raw material wholesalers
 42491 - Farm supply merchant wholesalers
 42493 - Nursery and florist merchant wholesalers
 42331 - Lumber and wood merchant wholesalers
 44523 - Fruit and vegetable markets
 44422 - Nursery, garden, and farm supply stores
 92614 - Agricultural market and commodity regulation

Tourism and Entertainment

31212 - Breweries
 3113 - Wineries
 445291 - Baked goods stores
 45322 - Gift, novelty, and souvenir stores
 5615 - Travel arrangement and reservation services
 71 - Arts, entertainment, and recreation
 72 - Accommodation and food services

Energy

22 - Utilities
 2371 - Utility system construction
 23821 - Electrical and wiring contractors
 23822 - Plumbing and HVAC contractors
 4247 - Petroleum merchant wholesalers
 45431 - Fuel dealers
 486 - Pipeline transportation
 92613 - Utility regulation and administration

Manufacturing

21 - Mining, quarrying, and oil and gas extraction
 31-33 - Manufacturing

Life Sciences

3254 - Pharmaceutical and medicine manufacturing
 541714 - Research and development in biotechnology
 3391 - Medical equipment and supplies manufacturing
 42345 - Medical equipment merchant wholesalers
 42346 - Ophthalmic goods merchant wholesalers
 4242 - Druggist goods merchant wholesalers

Information Technology

334 - Computer and electronic product manufacturing
42343 - Computer and software merchant wholesalers
5112 - Software publishers
518 - Data processing, hosting, and related services
51913 - Internet publishing and web search portals
5415 - Computer systems design and related services

Education

61 - Educational Services
92311 - Administration of Education Programs.

Finance

52 - Finance and insurance
5412 - Accounting and bookkeeping services
92113 - Public finance activities.

Health Care

524114 - Direct health and medical insurance carriers
532283 - Home health equipment rental
621 - Ambulatory health care services
622 - Hospitals
623 - Nursing and residential care facilities
92312 - Administration of public health programs.

Definitions

Annual Wage

From the BLS, wages are total earnings before payroll deductions, excluding premium pay for overtime and work on weekends or holidays, shift differentials, and nonproduction bonuses. Average Wage is calculated by dividing the number of employees by the sum of all wages.

Chained Type Index

From the Bureau of Economic Analysis, an index created by linking indexes to make a time series.

Employment

From the Bureau of Labor Statistics, employment includes covered workers who worked during the pay period including the 12th of the month. Employment includes employees in the private and public sectors. Employment includes full time, part time, piece workers, and many farm workers. Data also includes workers on sick leave, paid holiday, paid vacation, or similar. Employment excludes workers including unincorporated self-employed, proprietors, unpaid family members, certain farm and domestic workers, and others. Workers who earned no wages during the pay period are also excluded. For full details on included and excluded workers in employment data please visit the Bureau of Labor Statistics.

Enterprise

From the Bureau of Labor Statistics, a private firm, government, or nonprofit organization.

Establishment

From the Bureau of Labor Statistics, the physical location of an economic activity. One enterprise may have multiple establishments.

“Expected” Change of Employees/GDP

A calculation from the Shift-Share analysis. The change that the analysis calculates would have occurred absent the influences of the national overall economy and industry trends.

“Expected” Rate of Change of Employees

The calculated rate of change from the beginning period used in a Shift-Share analysis. Calculated by taking the “Expected” change in employees/GDP and dividing it by the beginning period figure.

Gross Domestic Product (GDP)

The estimated value of goods and services produced.

Key Industry

Industries defined by the Chester County Economic Development Council as major industry groupings in Chester County. Key industries combine NAICS codes to better represent the industries.

Labor Force Participation Rate

From the Bureau of Labor Statistics, includes people over the age of sixteen who are employed or actively making efforts to find a job.

Major Industries

Industries at the highest level of NAICS codes (two digits).

NAICS Codes

The North American Industry Classification System. Used by federal agencies to classify establishments. NAICS codes have levels of detail, from two digit to six digit codes. Longer codes are subsectors of shorter codes. For example, code 111411 (Mushroom Production) is a subset of code 1114 (Greenhouse, Nursery, and Floriculture Production), which is a subset of code 11 (Agriculture, Forestry, Fishing, and Hunting).

Philadelphia MSA

The Philadelphia MSA includes Burlington County, NJ; Camden County, NJ; Gloucester County, NJ; Bucks County, PA; Chester County, PA; Montgomery County, PA; Delaware County, PA; Philadelphia County, PA; New Castle County, DE; Cecil County, MD, and Salem County, NJ.

Real GDP

From the Bureau of Economic Analysis, GDP calculated for inflation relative to a reference year, 2012 used in data. Calculated in chain-type quantity index and presented in chained dollars.

Unemployment Rate

From the Bureau of Labor Statistics, to be unemployed a person must not have been employed during the week of the survey, must have been available for work during the survey week (unless unavailable due to temporary illness), and made one or more specific active efforts to find a job during the 4 week period ending with the survey week or were temporarily laid off and expecting to be recalled to their job.

