

The Likely Implications of an Improved US 301 in Queen Anne's County

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Executive Summary

- Impact of US 301 Improvements will Likely be Significant in Queen Anne’s County

Improvements currently being rendered to US 301 in Delaware will remove historical bottlenecks while supplying an expressway-quality thoroughfare stretching from I-95 in Delaware through Queen Anne’s County. For county stakeholders, the question becomes “What opportunities and challenges does this create for Queen Anne’s County above and beyond additional traffic volume?”

Broadly, there are two groups of people that will generate impact. The first is termed “flow-through” for purposes of this analysis. The travelers associated with this group are simply using US 301 and roads in Queen Anne’s County to avoid traffic they would otherwise encounter on I-95. We conclude that this flow-through group will generate minimal economic impact beyond the obvious, which includes increased activity for gas stations and quick-service eateries.

The second group is of far greater consequence and includes people who are meaningfully more likely to live, work, and/or frequently engage in recreational activities in Queen Anne’s County because of its greater proximity (measured in time) to dense economic networks, including those in Delaware. This has the potential to create more demand for housing, support larger private enterprises, including distributors, and create greater economies of scale for operators in leisure and hospitality segments.

The notion of material impact is hardly pure speculation. Recent improvements to Route 404 in neighboring Caroline County have coincided with a spike in commercial development along that highway. This commercial development occurred because improvements to Route 404 were complemented by available developable property. These conditions could presumably be replicated in Queen Anne’s County, adding economic opportunity and tax base in the process. However, a strategy to leverage an improved US 301 into a larger economy and tax base also implies greater urgency to address existing infrastructure shortcomings. Importantly, northernmost stretches of the county will now be more clearly within the commuting range of rapidly growing Middletown, Delaware, the state’s fourth largest community.

The Sage study team also concludes that another new source of housing demand could be from telecommuters and teleworkers — those who work primarily or exclusively from home. As technology and other trends transform the workplace and reduce the importance of being at a central workplace, opportunities for rural areas to attract these workers expand. Easier access to the urban centers from Philadelphia to Washington, D.C. can facilitate these workers, who may only need to commute occasionally to central offices.

Impact does not end with the flow of people. The movement of goods represents another source of positive economic impact. Remarkably, roughly half of Maryland’s employment is in the freight transportation and warehousing industry or in industries that are dependent on the freight transportation and warehousing industry (e.g. retail, agriculture, food processing, construction, manufacturing). These freight-related industries comprise more than half of the state, local, and federal taxes generated by Maryland’s economy.

An improved US 301, referred to as the “Bay Freight Corridor” by some analysts, represents a significant new contributor to maintaining and enhancing Maryland’s multi-modal freight system. Logistics and warehousing represent key elements of the freight movement industry and have been spotlighted by county economic development plans and officials.

A major distribution center would represent a significant contributor to the county’s economy and finances, and is now materially more probable given US 301 improvements. More realistic may be smaller distribution operations that tend to occupy flex spaces in business parks and centers. These distribution operations would be especially well positioned to support retailers and others operating in Philadelphia, Wilmington, Washington, D.C., and Baltimore.

Consequential economic impacts become even more likely when one considers the issue of developable land. Analysis prepared as part of the County’s 2010 comprehensive plan indicates that under current zoning regulations, there is ample land for any likely development, whether in the form of housing, commercial, or industrial uses.

The implications for tourism are less clear. The county’s offerings are unknown to many travelers. Nevertheless, an improved US 301 improves access from Pennsylvania, which generates almost as many visitors as does the balance of Maryland. Queen Anne’s County offers destinations and activities that have been highly rated by visitors — the Chesapeake Bay, local seafood, and waterfront dining. At a minimum, increased traffic flows through the county offers the possibility to dramatically enhance signage, expanding awareness and visibility in the process.

While opportunities are abundant, so, too, are challenges. While some stakeholders may relish the opportunity to expand residential and commercial tax bases, others will view expanded development as a threat to quality of life.

Moreover, an improved US 301 adds to the urgency of addressing certain infrastructure shortfalls: 1) at-grade crossings of US 301 and 2) extensions to water and sewer systems. Concerns regarding at-grade crossings of US 301 and accompanying risks to public safety have been part of public discussion for decades. Increased traffic resulting from reductions of bottlenecks in Delaware will only exacerbate these concerns. Several communities along the US 301 corridor note the need to extend water and sewer systems to developable land often adjacent to these communities. The widening of US 301 renders this land more valuable for annexation and development, which also means that inadequate water/sewer infrastructure is now associated with greater opportunity cost.

In the final analysis, the study team concludes that if Queen Anne’s County and its constituent communities take steps to leverage the potential of U.S. 301, the impacts will be significant along the dimensions of enterprise growth, job creation, and tax base expansion. We have identified the following steps as necessary to maximizing impact:

1. Identify, list, and if possible rank high potential developable commercial land.
2. Steadily eliminate barriers to commercial development through capital projects.
3. Clarify the benefits available to developers and businesses.
4. Encourage the development of speculative commercial space.
5. Take complete advantage of the State’s Tourist Area and Corridor Signing Program.

Introduction

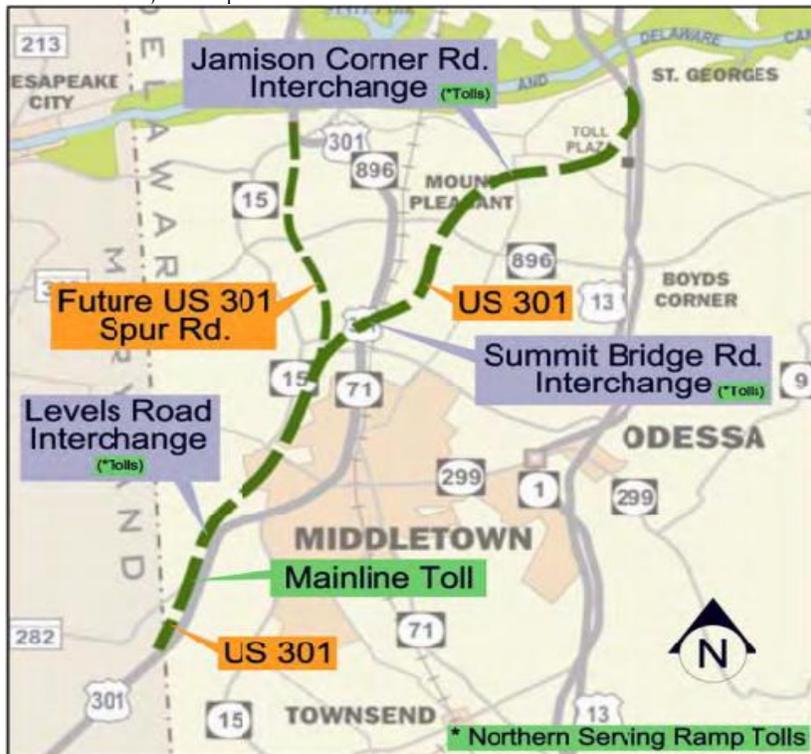
- New Economic Development Opportunities in Queen Anne’s County?

Queen Anne’s County commissioned Sage Policy Group, Inc. (Sage), a Baltimore-based economic consultancy, to examine the probable implications of the widening of US 301 in Delaware on county economic development. US 301 in Maryland is a four- to six-lane divided highway classified as a freeway/expressway. Improvements rendered to the roadway in Delaware will remove historical bottlenecks, supplying an expressway-quality thoroughfare stretching from I-95 in Delaware through Queen Anne’s County. See Exhibit 1 for an overview of improvements to US 301.

Eventually, US 301 crosses the Chesapeake Bay Bridge to speed drivers toward the Washington and Baltimore metropolitan areas. In other words, the widening of US 301 in Delaware renders it more likely that drivers will depart I-95 for a time, increasing commuter and commercial volume passing through Queen Anne’s County in the process.

Widening of the highway is occurring as this report is being prepared, with the current expectation that improvements will be completed in January 2019. The question is: What opportunities and challenges does this road widening create for Queen Anne’s County above and beyond additional traffic volume?

Exhibit 1. Project Map



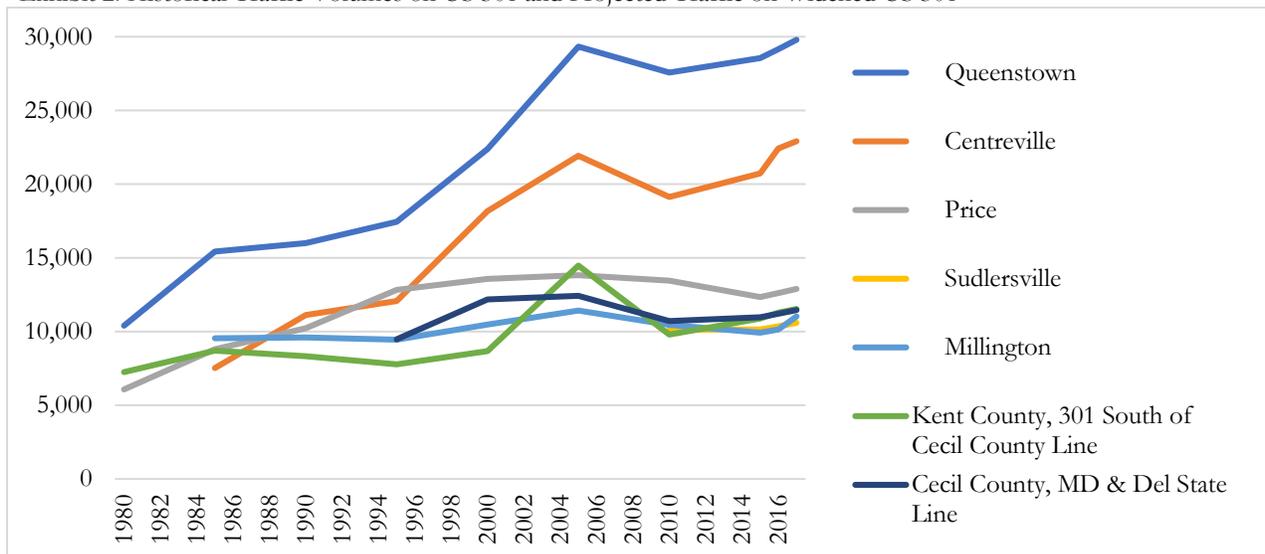
Source: DelDOT US 301 Record of Decision, Jacobs

- Historical Traffic Volumes

Exhibit 2 presents historical data regarding annual average daily traffic on US 301 at various locations in Queen Anne’s County and in Kent and Cecil counties as the highway heads into Delaware. These historical data are shown for five-year intervals from 1980 to 2015 as well as for 2016 and 2017.

As data embodied by the exhibit indicate, traffic volumes on US 301 are significantly higher in Queenstown and Centreville, the southernmost of the locations listed in Exhibit 2, than at locations farther north. Queenstown and Centreville are within commuting distance of the Western Shore (roughly 24 miles and 30 miles, respectively from Annapolis) and to some extent are bedroom communities within the greater Baltimore and Washington regions. Generally, the farther north one moves on US 301 in Maryland, the lower the traffic volumes become.¹

Exhibit 2. Historical Traffic Volumes on US 301 and Projected Traffic on Widened US 301



Source: Maryland SHA

The projected traffic increase that an improved US 301 will create leads to a series of questions regarding possible consequences for Queen Anne’s County of that greater volume of traffic. A Jacobs Engineering analysis of the proposed improvements to US 301 notes that the project intends to serve local and regional purposes. Locally, improvements should relieve congestion around Middletown, Delaware, a regional destination for shopping and recreation serving proximate areas in both Maryland and Delaware.

Regionally, an improved US 301 can serve as an alternative to through traffic on I-95. As the Jacobs Engineering analysis notes, an improved US 301 represents a potentially attractive option for truck

¹ Traffic volumes in Maryland are derived from the Maryland State Highway Administration’s Traffic Volume Maps. Projected traffic volumes in Delaware are from Jacobs Engineering Group, “Updated Toll Traffic and Revenue Study,” May 2105.

traffic moving between Delaware and the Washington region. Jacobs’ analysis estimates that travel between Wilmington, DE and the Washington, D.C. beltway is about 17 miles longer and would take an additional 15 minutes using the improved US 301 compared to I-95. Tolls for trucks, however, would be approximately \$20 less expensive (\$172.0 on I-95 versus \$151.5 on the improved US 301). Thus, a trucker could save on tolls while adding a modest amount of time. When I-95 is congested, this trade-off of time might well be minimized while toll savings would be certain.²

Sage also examined the potential costs and benefits of using US 301 for commercial traffic by estimating drive distances and times between Trenton, NJ and Greenbelt, MD. This trip approximates the alternatives to reaching the Washington beltway from the north. As noted in Exhibit 3, using US 301 adds 14 miles to the trip relative to using I-95. The shortest route is one using the Baltimore-Washington Parkway, a route that is, however, unavailable to commercial vehicles.

Exhibit 3. Distance from Trenton, NJ to Greenbelt, MD by Select Routes

Route	Distance
Via I-95 S & Baltimore Washington Pkwy	157 miles
Via I-476 S & I-95 S	163 miles
Via I-95 S & US-301 S	177 miles

Source: Google Maps (estimates retrieved 7/18/2018).

The greater distance required to reach the Washington beltway translates into increased average drive times. Using US 301 generally adds 20 to 25 minutes to the total, an increase of roughly 10 to 15 percent. As shown in Exhibit 4, drive times are somewhat longer during the week than on weekends.

Exhibit 4. Drive Time from Trenton, NJ to Greenbelt, MD by Select Routes & Departure Times

Route	Average Drive Time (Minutes) by Departure Time			
	12AM	6AM	12PM	6PM
<i>Workweek (Mon-Fri)</i>				
Via I-476 S & I-95 S	165.0	194.0	177.0	173.0
Via I-95 S and US-301 S	185.0	212.0	195.0	196.0
<i>Weekend (Sat-Sun)</i>				
Via I-476 S & I-95 S	165.0	155.0	172.5	167.5
Via I-95 S and US-301 S	185.0	180.0	197.5	187.5

Source: Google Maps (estimates retrieved 7/18/2018). Note: Drive time is the average of the time range that Google reports for each given route.

An important benefit of the US 301 alternative is avoiding certain I-95 tolls. Exhibit 5 summarizes existing toll charges for commercial traffic. These tolls vary by the number of axles for trucks. They are also reduced for those who use the E-Z Pass system. Assuming that most drivers of commercial vehicles use the E-Z Pass system, the use of US 301 provides a substantial reduction in the cost of reaching the Washington beltway from the north. This reduced cost ranges from over \$23 for 3-axle

² Op. cit., Jacobs Engineering

vehicles to over \$48 for 6-axle vehicles. This reduction in toll charges can be compared to the added travel time that US 301 entails. Thus, a commercial driver might consider if the 20 to 25 minutes of added travel are worth a reduction of \$23 to \$48 in toll charges. Given the narrow margins that apply to many in the commercial trucking industry, this calculus is likely to be important for many truckers.³

Exhibit 5. Estimated Truck Toll Costs for Drive from Trenton, NJ to Greenbelt, MD by Select Routes

Route	Toll Costs by Number of Axles			
	3	4	5	6
Via I-476 S & I-95 S (E-Z Pass)	\$31.18	\$42.31	\$62.05	\$78.38
Via I-476 S & I-95 S (Cash)	\$33.45	\$45.60	\$65.85	\$83.75
Via I-95 S & US-301 S	\$8.00	\$12.00	\$24.00	\$30.00

Source: 1. TollGuru, <https://tollguru.com/toll-calculator> (estimates retrieved 7/19/2018). 2. Maryland Transportation Authority. Note: Tolls calculated based on 6:00A departure time on a Monday.

Sage’s analysis supports several of Jacobs Engineering’s key findings. As an alternative to I-95, an improved US 301 is likely to be attractive to commercial traffic by substantially lowering costs while only increasing travel time modestly. Given the congestion that often plagues the Washington and Baltimore regions, this alternative may be attractive to all traffic moving between Delaware and the Washington region.

Traffic on US 301 in Maryland communities nearest the Delaware-Maryland border averages a bit more than 10,000 vehicles daily. This is consistent with traffic volumes on US 301 in Delaware at the state line with Maryland, just west of Middletown, Delaware. The imposition of a toll in Delaware is expected to result in a temporary dip in traffic as drivers adjust to the new toll. After a ramp-up period of a few years, the projected traffic on US 301 in Delaware just west of Middletown and shortly before US 301 crosses into Maryland is expected to exceed 14,000 vehicles daily in 2020. After that period, the Jacobs Engineering analysis projects that traffic volumes will grow more gradually to a level of over 17,000 by 2030.

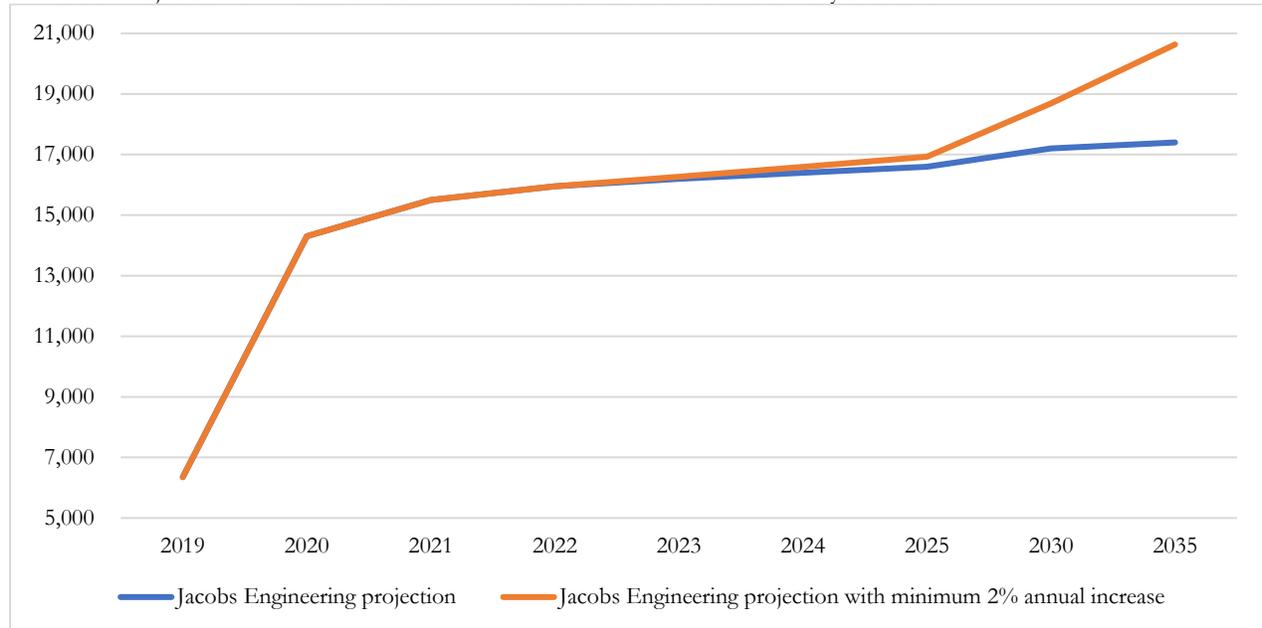
As part of its adequate public facilities planning, Queen Anne’s County has a policy of projecting traffic volumes using a 2 percent annual increase.⁴ Applying this annual increase to the Jacobs Engineering projections in years that the Jacobs Engineering projection dips below a 2 percent per year increase naturally leads to larger projected volumes of traffic in later years of the forecast horizon. For example, Jacobs Engineering projects a volume of 17,200 in 2030 while applying a 2 percent annual increase would generate a projection of 18,700. By 2035, Jacobs Engineering projects a volume of 17,400 while applying the 2-percent annual increase yields an estimate of 20,600.

³ The New York Times noted recently that many truckers are paid per-mile traveled but can spend hours at destinations off-loading or on-loading cargo. The result is that some truckers earn less than the minimum wage per hour worked. Editorial Board, “The trouble with trucking,” New York Times, August 11, 2018. <https://nyti.ms/2Ou8M77>.

⁴ Steve Cohoon, Public Facilities Planner, Queen Anne’s County, personal communication, July 9, 2018.

Regardless of the forecast methodology one utilizes, within a few years, traffic volumes entering Maryland on US 301 will increase significantly. Over the longer run, this volume is projected to increase in a range of roughly 75 percent to more than 100 percent. These projected traffic volumes are presented in Exhibit 6.

Exhibit 6. Projected Toll Traffic on US 301 in Delaware near the Delaware-Maryland Line



Source: Jacobs Engineering, Queen Anne’s County

One indication that these projections could be conservative comes from a Delaware analysis of freight traffic along the US 301 corridor from the Bay Bridge to I-95. That analysis found that truck traffic on this highway is particularly sensitive to improved economic conditions. That is, if the economy of the Delmarva Peninsula grows at the upper end of long-term projections, a significant increase in truck freight on US 301 is expected to result.⁵

- Analytical Approach

Sage has relied on a variety of public and private data to characterize economic conditions and prospects for Queen Anne’s County. Information regarding local perspectives on economic development and other opportunities that might arise from a widened US 301 were gathered from planning documents for Queen Anne’s County and Centreville as well as from local officials. Interviews were conducted with officials from communities along the US 301 corridor from Queenstown to Millington. A list of those interviewed is included in the Appendix.

⁵ Delaware Department of Transportation, “Delmarva Freight Plan,” May 2015. https://www.deldot.gov/Publications/reports/freight_plan/pdfs/2015/Delmarva_Freight_Plan_Final_Report.pdf.

Baseline Conditions & Potential Impacts

- The Context – Suburban Prosperity Meets Rural Character

Queen Anne’s County is a growing and affluent community. The following discussion highlights key county characteristics and presents a baseline against which the impacts of an improved US 301 can be considered. Data for projections of future growth are generated by the Maryland Department of Planning.⁶ These projections were made shortly before the analysis of traffic generated by an improved US 301.

As Exhibit 7 indicates, the county’s population is expected to reach 50,750 by 2020 and then grow to 55,750 by 2030. As noted in the exhibit, the projected rate of countywide population growth for the period 2010-2030 is significantly higher than that for Maryland and a bit higher than the projected rate of growth for the Upper Eastern Shore region that comprises five counties: Caroline, Cecil, Kent, Queen Anne’s, and Talbot counties.

The percentage increase over both ten-year periods is likewise higher for the county than either the state or the Upper Eastern Shore. From 2010-2020, Queen Anne’s County’s population is expected to grow 12.1 percent, faster than Maryland’s 7.8 percent or the region’s 8.6 percent. Further into the future, the county’s population is expected to grow at an even faster pace as is the Upper Eastern Shore’s, while Maryland’s is expected to slow. The projected increase for Queen Anne’s County from 2020 to 2030 is 12.6 percent, again a faster rate of growth compared to the state’s 6.2 percent or the Upper Eastern Shore’s 11.9 percent.

Exhibit 7. Historical & Projected Population, 2010-2030

	Total Population			2010-2030 Projected	
	2010 Census	2020 Projection	2030 Projection	Net	CAGR %
Maryland	5,773,552	6,141,900	6,518,750	745,198	0.61%
Upper East. Shore Region	239,951	249,150	276,750	36,799	0.72%
Queen Anne’s County	47,798	50,750	55,750	7,952	0.77%

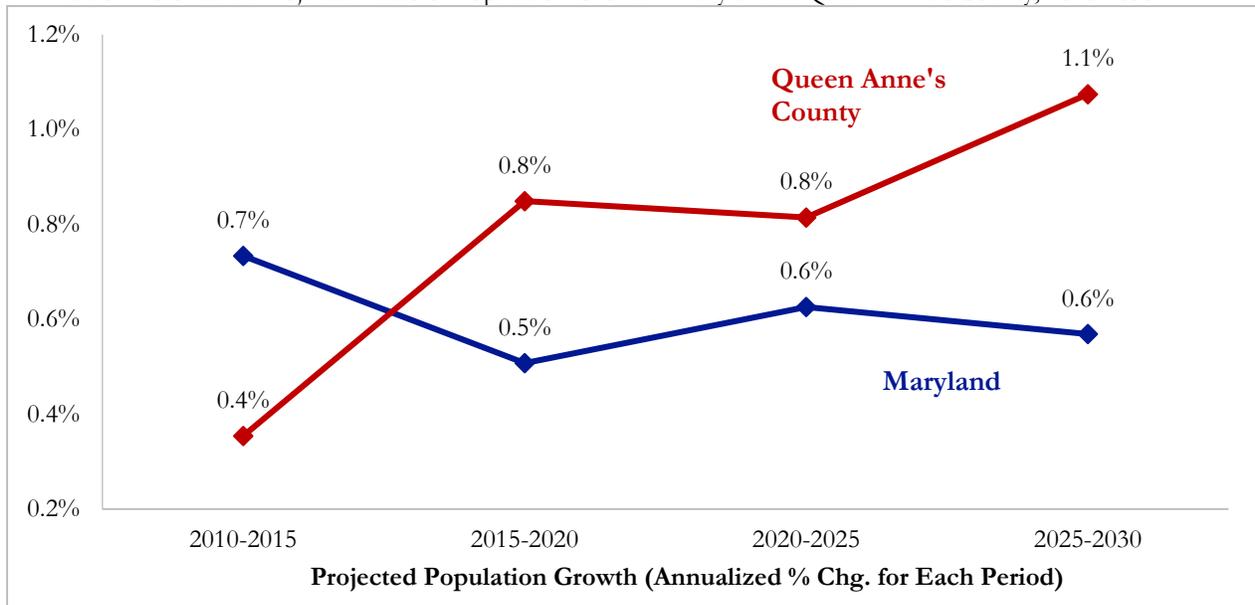
Source: *Maryland Department of Planning*. Projections to 2045. August 2017. Notes: Upper Eastern Shore region includes Caroline, Cecil, Kent, Queen Anne’s, and Talbot counties. CAGR is compound annual growth rate.

The increasing pace of population growth in Queen Anne’s County in contrast to that of Maryland’s is graphically displayed in Exhibit 8. That exhibit plots the average compound annual growth rate over five-year periods from 2010 to 2030 for the county and the State. The county rate steadily rises from a rate of 0.4 percent for 2010 to 2015 to 0.8 percent from 2015 to 2025 to 1.1 percent from 2025 to 2030. Over those same periods, the rates for the State tend to move downwards. The highest average for the State (0.7 percent) is in the 2010 to 2015 period when statewide population

⁶ Data on socioeconomic characteristics of Maryland and its jurisdictions, including projections, are available from the State Data Center, an online resource maintained by the Maryland Department of Planning. The data center aggregates data from the U.S. Census Bureau and provides data related to population, housing, employment, labor force, and income. <http://planning.maryland.gov/msdc/Pages/default.aspx>.

was growing faster than the Queen Anne’s County population. Afterwards, the statewide annual rate falls to between 0.5 percent and 0.6 percent, well below the corresponding rates for the County.

Exhibit 8. Historical & Projected Rates of Population Growth: Maryland & Queen Anne’s County, 2010-2030



Source: Maryland Department of Planning. Projections to 2045. August 2017.; http://planning.maryland.gov/MSDC/Pages/s3_projection.aspx.

Similar patterns are observable with respect to labor force participation rates. Exhibit 9 supplies data regarding projected growth in the population aged 16 years and older and in the labor force of the county, the Upper Eastern Shore, and Maryland from 2010 to 2030. Both in terms of total 16+ population and labor force, countywide growth is projected to be more rapid than Maryland’s or the Upper Eastern Shore’s. Adult population is expected to rise 21 percent while labor force is expected to expand more than 11 percent countywide between 2010 and 2030. The projected 21 percent increase in population and the 11 percent increase in the labor force are substantially greater than corresponding growth rates in the region or the state. The relatively slower growth of the labor force in all areas compared to the population 16 years or older reflects the overall aging of the population and a rising share of adults reaching retirement.

Exhibit 9. Historical & Projected Labor Force, 2010-2030

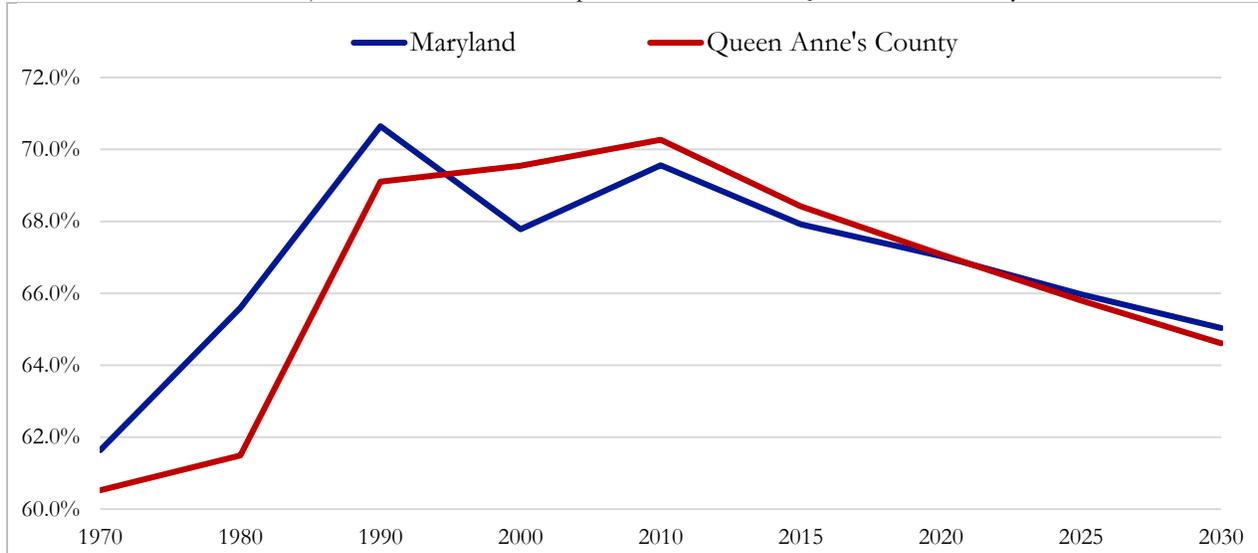
	2010 Estimate		2030 Projection		2010-2030 Projected			
	Pop. 16+	Labor Force	Pop. 16+	Labor Force	Pop. 16+		Labor Force	
					Net	%	Net	%
Maryland	4,584,109	3,188,720	5,274,740	3,430,500	690,631	15.1%	241,780	7.6%
Upper Eastern Shore	190,814	126,300	226,830	137,710	36,016	18.9%	11,410	9.0%
Queen Anne’s County	37,812	26,570	45,830	29,610	8,018	21.2%	3,040	11.4%

Source: Maryland Department of Planning. Projections to 2045. January 2018. Notes: 1. Projected numbers are rounded to the nearest 10. 2. Labor force for 2010 are estimates based on the 2008-2012 American Community Survey.

Although the labor force in Queen Anne’s County is growing more rapidly than the state’s, the share of adults participating in the labor force in the county is quite similar to the share of adults in the statewide labor force. Exhibit 10 tracks the labor force participation rate in the county and in

Maryland from 1970 through projections for 2030. The labor force participation rate, which is defined as the proportion of adults who are working or actively seeking work, rose significantly from 1970 through 1985 and then stayed relatively steady until 2010. At that point, declining participation became the dominant pattern and that is projected to continue until at least 2030. These dynamics in labor force participation generally follow the working years of Baby Boomers, who began to enter the labor force around 1970 and then began to retire shortly after 2010 when the oldest of that age cohort reached 64 years of age.

Exhibit 10. Historical & Projected Labor Force Participation Rates, MD & Queen Anne’s County, 1970-2030



Source: *Maryland Department of Planning*. Projections to 2045. January 2018. Notes: 1. Projected participation rates are calculated from rounded (to the nearest 10) population and labor force totals. 2. Labor force participation rates for 2010 are estimates based on the 2008-2012 American Community Survey. These participation rates are applied to the Census 2010 population by age/sex to yield labor force estimates. 3. Labor force participation rates for 2015 are estimates based on the 2011-15 American Community Survey.

As the labor force has grown in Queen Anne’s County, the number of jobs in the county has expanded as well. Indeed, as shown in Exhibit 11, from 2010 to 2030, the number of jobs in the county is expected to increase by 25.7 percent, faster than the county’s labor force is expected to grow over that period (21.2 percent). This growth in jobs in the county is significantly greater than statewide job growth (25.7 percent versus 18.9 percent) and is slightly higher than the growth rate for the Upper Eastern Shore. This also implies that Queen Anne’s County residents have a growing set of choices allowing them to work within the county as opposed to commuting elsewhere.

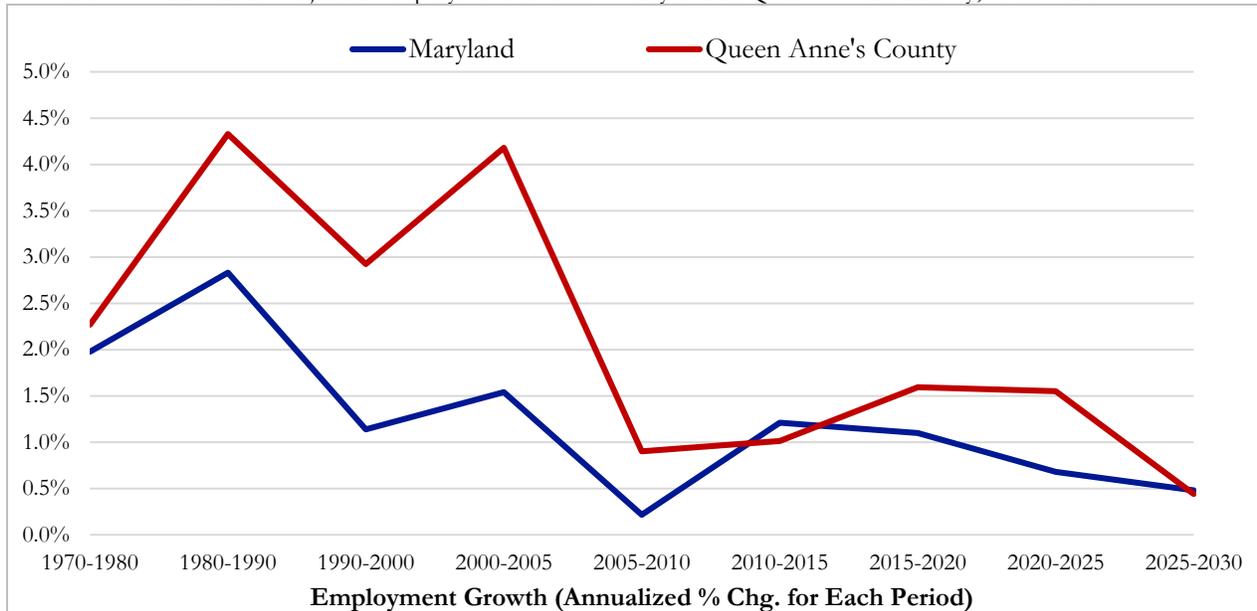
Exhibit 11. Historical & Projected Jobs by Place of Work, 2010-2030

	Jobs by Place of Work		2010-2030 Projected		
	2010	2030 Proj.	Net	%	CAGR
Maryland	3,344,652	3,975,200	630,548	18.9%	0.87%
Upper Eastern Shore Region	115,335	144,600	29,265	25.4%	1.14%
Queen Anne’s County	21,964	27,600	5,636	25.7%	1.15%

Source: *Maryland Department of Planning*. Projections from 2015 to 2040, Prepared January 2015. Historical data from the U.S. Bureau of Economic Analysis, Tables CA25 and CA25N.

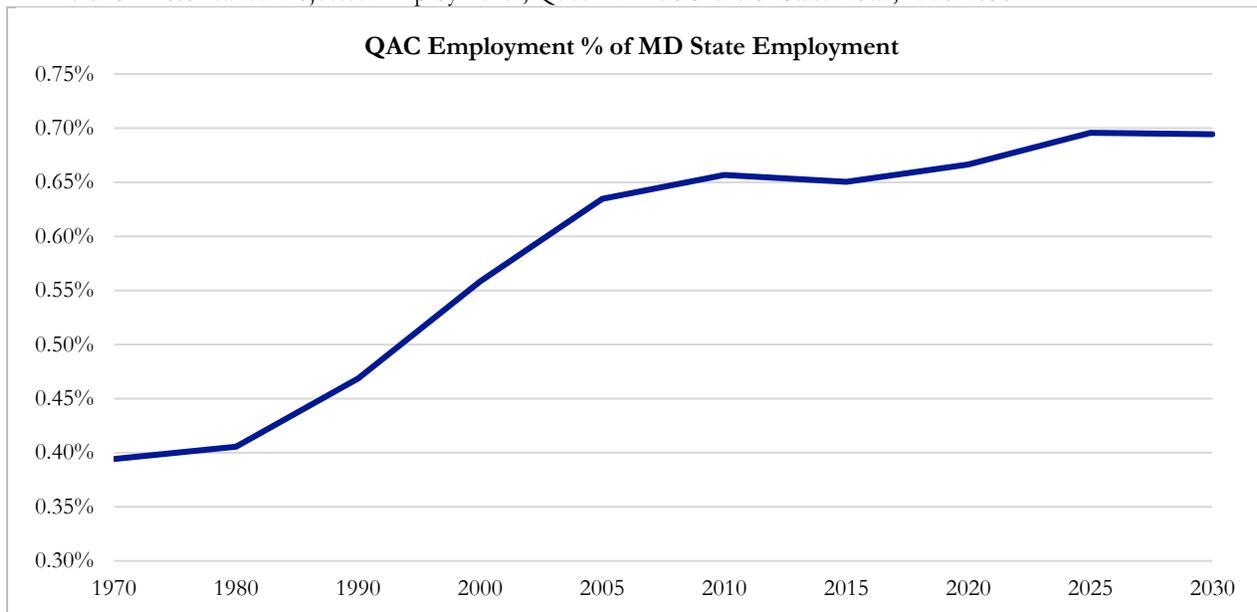
As indicated in Exhibit 12, from 1970 to 2010, the county exhibited significantly faster job growth than the state as a whole, largely the result of suburbanization. More recently, growth rates for the county and the State have tended to converge. Exhibit 13 reflects the fact that the county's share of statewide employment is on pace to increase from 0.4 percent in 1970 to 0.7 percent by 2030.

Exhibit 12. Historical & Projected Employment Growth* Maryland & Queen Anne's County, 1970-2030



Source: *Maryland Department of Planning*. Projections from 2015 to 2040, Prepared Jan. 2015. Historical data from the U.S. Bureau of Economic Analysis, Tables CA25 and CA25N. Note: *Jobs by place of work.

Exhibit 13. Historical & Projected Employment*, Queen Anne's Share of State Total, 1970-2030



Source: *Maryland Department of Planning*. Projections from 2015 to 2040, Prepared January 2015. Historical data from the U.S. Bureau of Economic Analysis, Tables CA25 and CA25N. Note: *Jobs by place of work.

Along with a growing population, labor force, and employment base, Queen Anne’s County also houses a relatively affluent population. As reflected in Exhibit 14, county median household income is substantially greater than the nation’s and meaningfully higher than the state’s. Estimates for 2016 indicate that at that time, Queen Anne’s County’s median household income was 13 percent greater than Maryland’s and 55 percent greater than the nation’s.

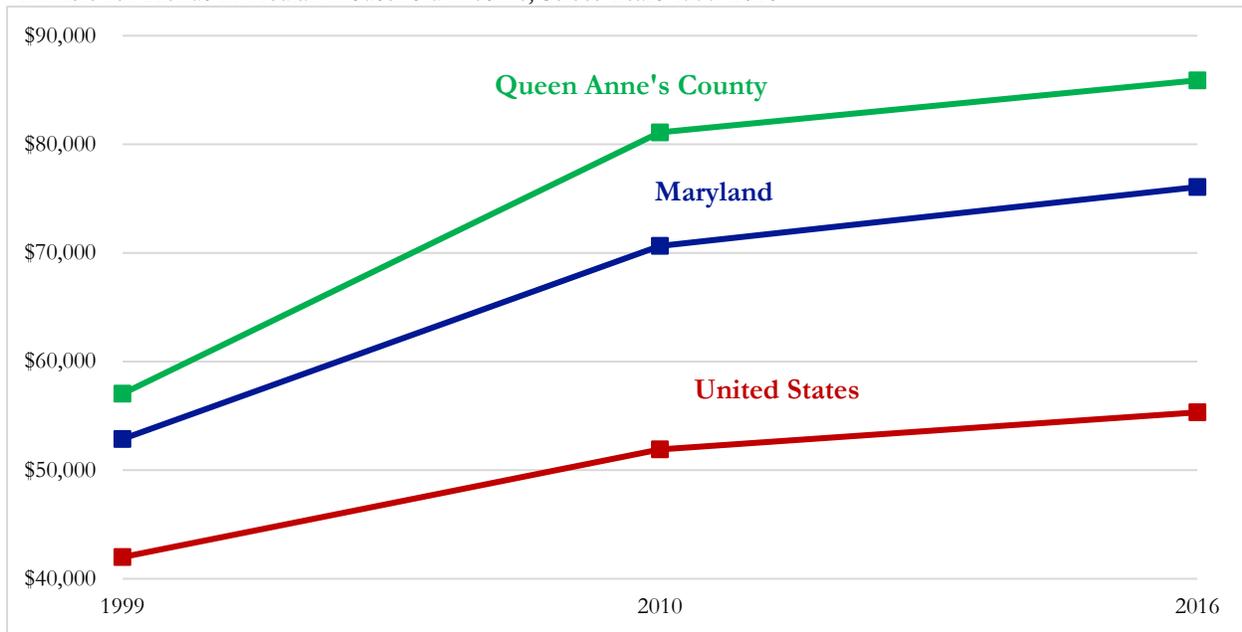
Exhibit 14. Median Household Income, Select Years 1999-2016

	1999	2010	2016	CAGR (%)	
				1999-2010	2010-2016
United States	\$41,994	\$51,914	\$55,322	1.95%	1.07%
Maryland	\$52,868	\$70,647	\$76,067	2.67%	1.24%
Queen Anne’s County	\$57,037	\$81,096	\$85,891	3.25%	0.96%

Source: U.S. Census Bureau. 2000 Census: DP-3; 2006-2010 American Community Survey 5-Year Estimates: DP03; 2012-2016 American Community Survey 5-Year Estimates: DP03. Note: Not adjusted for inflation.

As indicated in Exhibit 14, annual growth rates for incomes in Queen Anne’s County, Maryland, and the U.S. were significantly higher from 1999 to 2010 than during the succeeding six years. These trends and the lower growth rates from 2010 to 2016 are illustrated in Exhibit 15. This is reflective of a generally slow period of income growth in America following the Greater Recession.

Exhibit 15. Trends in Median Household Income, Select Years 1999-2016



Source: U.S. Census Bureau

- Better Connections to Economic Vitality and Growth in Delaware

While one might be tempted to fixate on traffic flowing from Delaware into Queen Anne’s County via US 301, flows of economic activity are seldom unidirectional. The county shares its eastern border with Delaware. Just over that state line is the city of Middletown, one of Delaware’s fastest growing economic centers. The city ranks 4th in the state in terms of population, trailing only Wilmington, Dover (the state capital), and Newark, home to the University of Delaware.

Middletown’s population has been expanding rapidly. According to data supplied by the U.S. Census Bureau, Middletown’s population expanded from 6,161 in 2000 to 18,867 by 2010, representing a compound annual growth rate of 11.8 percent. By comparison, the population growth rate for the entire state of Delaware over that same period of time was 1.4 percent. This upward trend has continued in recent years. In 2017, the last year for which there are population data for Middletown, the city’s population was 21,897.

Projections by the Delaware Population Consortium indicate that the population of Middletown will continue to grow at a rate well above that expected for Delaware.⁷ Although growth rates will drop from the torrid pace of the recent past, Middletown is expected to quadruple its population between 2000 and 2030. See Exhibit 16 for more information.

Exhibit 16. Population Trends, Middletown and Delaware: 2000-2030

	Total Population				2000-2010		2010-2030 Projected	
	2000 Census	2010 Census	2020 Projection	2030 Projection	Net	CAGR	Net	CAGR
Delaware	783,600	899,769	989,665	1,045,587	116,169	1.4%	145,818	0.8%
Middletown	6,161	18,867	22,767	25,359	12,706	11.8%	6,492	1.5%

Source: U.S. Census Bureau, The Delaware Population Consortium

As its population has expanded, Middletown has made strides to make its city more business friendly. Among other things, the community has developed a master plan every five years to provide forward-looking guidance. This approach has proven to be successful. In 2012, Amazon finished construction of a 1.2 million square-foot distribution center, valued at \$90 million. Initial plans called for the center to support 850 full-time jobs, but payroll has since expanded to more than 2,500.

⁷ Delaware Population Consortium, “Population Projections Places (all municipalities)”. <http://www.stateplanning.delaware.gov/demography/dpc-projection-data.shtml>.

The vigorous population and economic growth in Middletown has created new opportunities for both employment and shopping, particularly for those in the northern tiers of Queen Anne’s County. As several of those interviewed noted, Delaware has no sales tax, which increases its attractiveness for consumers but also makes it more difficult to support leisure/retail activities in Queen Anne’s County.

The increasing economic vitality of Middletown has led to an expanding area from which workers commute to jobs in the town. This expanding area includes northern sections of Queen Anne’s County. For example, Millington is about a 20-minute drive from Middletown, which suggests that housing demand stemming from commuters could support residential growth in the county.

Farther up the road from Middletown is the Port of Wilmington along the Delaware River. In late September 2018, Delaware’s governor signed an agreement with Gulftainer to operate the port for the next 50 years. Gulftainer indicated it would spend \$410 million to construct a new container port facility and \$170 million to upgrade existing port facilities. The chairman of Gulftainer declared that the expanded port has the potential to create more than 6,000 new direct and indirect jobs and \$1.2 billion in economic activity for the State of Delaware. New employment associated with the expanded port would more than double Delaware’s port and maritime-related employment. These investments will establish the Port of Wilmington as the leading food gateway on the East Coast and the largest logistics facility on the Delaware River, according to Gulftainer.^{8,9}

While the Port of Wilmington is roughly an hour from the northern edge of Queen Anne’s County, the spillover effects of a substantial increase in the economic activity at the port could easily generate impacts in the county. These include employment opportunities at the port or in companies that directly benefit from the port’s expansion, including major global distributors. In addition, port activities could easily increase the value of US 301 as an alternative freight route to the Washington area and points south.

⁸ The Philadelphia Tribune, “Wilmington port under new management with 50-year deal,” September 20, 2018. http://www.phillytrib.com/news/wilmington-port-under-new-management-with-year-deal/article_a189ac1c-ff0c-5455-bbb8-7e054ab639f5.html.

⁹ Xerxes Wilson, “Port of Wilmington privatization deal promises more jobs, stable economic future,” Delaware News Journal, September 18, 2018. <https://www.delawareonline.com/story/news/2018/09/18/governor-signs-agreement-privatize-port-wilmington/1345728002/>.

Expanding Commercial Activity

Two sources of increased commercial activity may emerge following improvements to US 301. The most direct is an increase in vehicular traffic, and the potential for this traffic to generate new demand for food services, fuel, and other travel-related goods and services. This is referred to as flow-through activity. The second source is an incremental increase in the county's population because of enhanced access that the improvements to US 301 will create. This impact is likely to be far larger in scale, in part because greater population can represent an inducement to business expansion, which in turn creates additional hiring, which in turn draws in additional population.

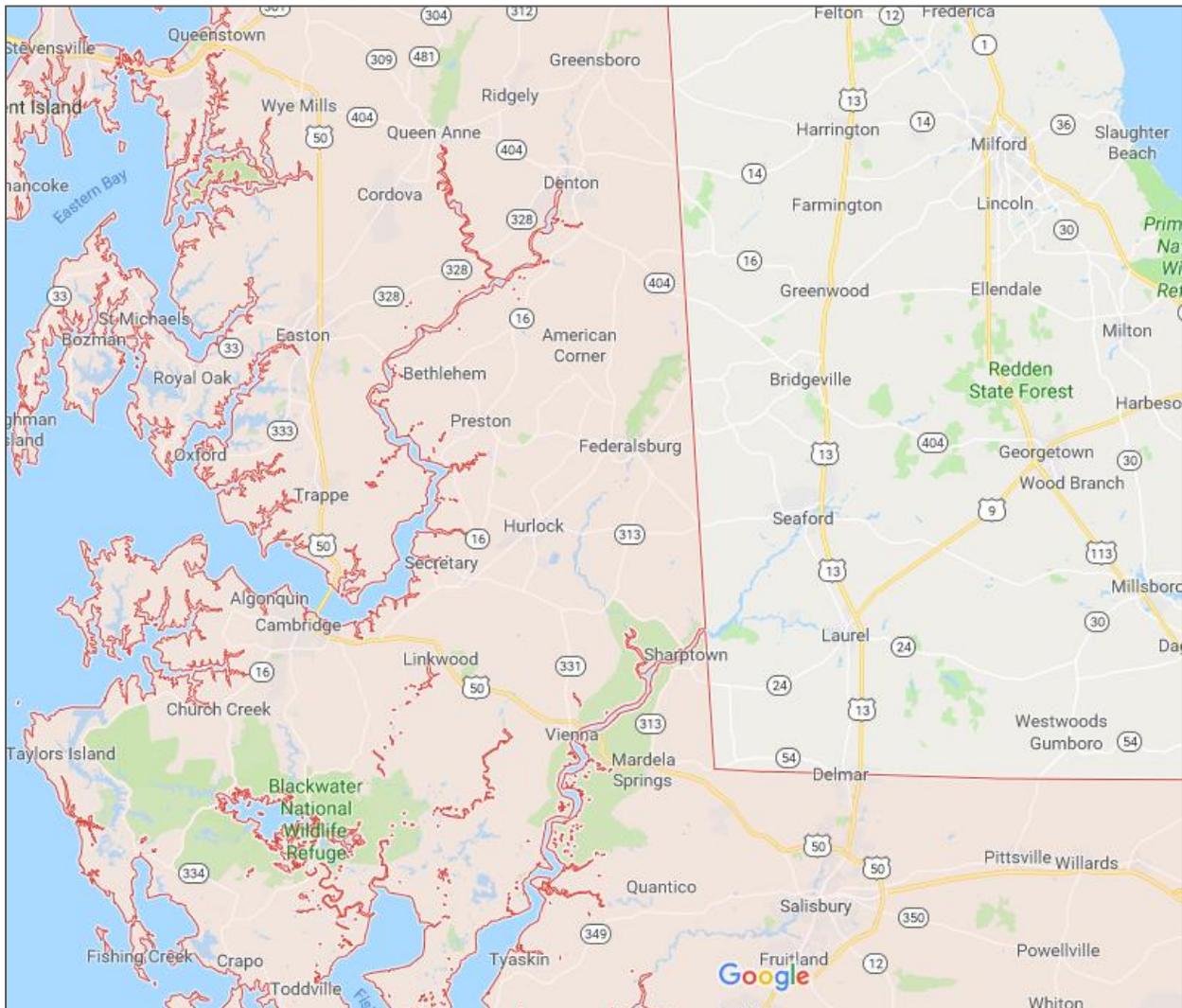
- How Increased Traffic Can Stimulate Commercial Activity

The method of causation is rather obvious. However, the likely scale of impact is not. The traveling public spends money. Whether this traveling public is headed for a vacation or is hauling freight, it generates demands for goods and services. By removing bottlenecks in Delaware, the improvements to US 301 are projected to increase traffic that is moving through Queen Anne's County.

A recent experience in neighboring Caroline County may be instructive. Earlier this year, improvements to Route 404 were completed which changed that highway from a single lane in each direction to two lanes in each direction. These improvements have substantially upgraded an alternative route to the beach as noted in Exhibit 17. As a result, there has reportedly been a modest uptick in traffic moving along Route 404.¹⁰

¹⁰ Information on Route 404 improvements and their connection to retail development in Denton are based on an interview with Debbie Bowden, Director for Economic Development in Caroline County, August 9, 2018.

Exhibit 17. Route 404 as an Alternative to Route 50



Source: Google Maps

The volume of traffic currently moving on Route 404 and, in particular, passing through Denton is not available. The most recent data from the State Highway Administration provides a picture of annual average traffic volumes in 2016.¹¹ At that time, average daily traffic on Route 50 just north of its intersection with Route 404 was almost 49,000. This volume drops to roughly 37,000 in Easton. Traffic volumes on Route 404 vary from more than 17,000 just east of its intersection with Route 50 to almost 22,000 in Queen Anne to over 25,000 as the highway passes around Denton before moving on to the Delaware border where the traffic volume approaches 13,000.

¹¹ Maryland State Highway Administration, “MDOT SHA Annual Average Daily Traffic (AADT) Locator”. <http://maryland.maps.arcgis.com/apps/webappviewer/index.html?id=223148a698214294a7b43cd612a4e67d>.

Improvements to Route 404 are almost certainly a major contributor to a significant spike in retail development in Denton, which straddles the highway. Recent developments include two new fast-food style restaurants and two other new retail businesses. There are also discussions regarding expanded strip-mall style developments along the highway. According to the Director for Economic Development in Caroline County, this new retail development represents a classic example of the impacts that can be generated by investments in infrastructure. This development was also seen as a “perfect storm” of coincidences since improvements to Route 404 increased the attractiveness of commercial property that had been on the market for years and that benefited from the increase, however modest, in through traffic that has occurred.

Although data are not yet available for post-improvement Route 404 traffic volumes, it can and should be noted that traffic volumes along the highway in 2016 were not dissimilar to the 2017 volumes on US 301. Traffic volumes near Queenstown ranged from 27,000 to almost 30,000, volumes slightly higher than those in Denton in 2016. Traffic volumes in Queen Anne and Centerville were also similar (22,000 versus 23,000) as were traffic volumes as the two highways reached the border with Delaware (roughly 11,000 for US 301 and 13,000 for Route 404). In the instance of Denton, the reported slight increase in traffic following improvements to Route 404 may have created a tipping point for retail development at sites that had been available and on the market for years. This is a scenario that could also apply to undeveloped commercial land along US 301.

- **Increased Population Can Lead to Commercial Expansion**

A growing population that might grow even faster with an improved US 301 will increase demand for a range of commercial goods and services. While additional population increase attributable to the widening of US 301 might not in and of itself lead to significant changes in commercial activity, it is certainly possible that this incremental increase on top of existing rates of population growth might tip the scales in favor of an expansion of business establishments in the county given potential tipping point effects.

Exhibit 18 presents estimates of retail activity in 2017 in Queen Anne’s County. These estimates include demand for retail goods and services as well as the ability of county businesses to meet this demand. These estimates are presented for a broad range of retail businesses. The major retail industry groups (e.g., Motor Vehicle & Parts Dealers) are presented in boldface type. In some cases, these major retail industry groups include several subdivisions (e.g., Automobile Dealers, Other Motor Vehicle Dealers, and Auto Parts, Accessories & Tire Stores).¹²

¹² Data on retail activity by industry group are taken from a “Retail MarketPlace Profile” developed by ESRI, a company that uses publicly available data and other information to compile economic statistics for local economies. These data apply to Queen Anne’s County for the year 2017.

Exhibit 18. Estimated Retail Demand and Supply by Industry, 2017

Industry Group	Retail Sales (\$Millions)		Retail gap	Leakage/ Surplus Factor	Gap as share of demand	Leakage exceeds 50	Gap exceeds \$10M
	Demand	Supply					
Motor Vehicle & Parts Dealers	\$179.5	\$163.9	\$15.6	4.5	8.7%		Yes
<i>Automobile Dealers</i>	\$151.8	\$8.2	\$143.6	89.7	94.6%	Yes	Yes
<i>Other Motor Vehicle Dealers</i>	\$14.0	\$149.8	-\$135.8	-82.9	-970.1%		
<i>Auto Parts, Accessories & Tire Stores</i>	\$13.7	\$5.9	\$7.8	40.1	57.2%		
Furniture & Home Furnishings Stores	\$31.0	\$7.0	\$24.0	63.3	77.5%	Yes	Yes
<i>Furniture Stores</i>	\$17.7	\$4.6	\$13.1	58.6	73.9%	Yes	Yes
<i>Home Furnishings Stores</i>	\$13.4	\$2.4	\$11.0	69.9	82.3%	Yes	Yes
Electronics & Appliance Stores	\$33.2	\$12.9	\$20.4	44.1	61.3%		Yes
Bldg Materials, Garden Equip. & Supply Stores	\$63.0	\$27.7	\$35.3	38.9	56.0%		Yes
<i>Bldg Material & Supplies Dealers</i>	\$57.9	\$19.1	\$38.7	50.3	66.9%	Yes	Yes
<i>Lawn & Garden Equip & Supply Stores</i>	\$5.2	\$8.6	-\$3.4	-24.8	-66.1%		
Food & Beverage Stores	\$156.0	\$153.8	\$2.1	0.7	1.4%		
<i>Grocery Stores</i>	\$131.4	\$131.9	-\$0.5	-0.2	-0.4%		
<i>Specialty Food Stores</i>	\$7.7	\$11.0	-\$3.2	-17.3	-41.8%		
<i>Beer, Wine & Liquor Stores</i>	\$16.8	\$10.9	\$5.9	21.2	34.9%		
Health & Personal Care Stores	\$54.0	\$36.4	\$17.7	19.5	32.7%		Yes
Gasoline Stations	\$75.6	\$61.7	\$13.9	10.1	18.4%		Yes
Clothing & Clothing Accessories Stores	\$58.1	\$43.8	\$14.4	14.1	24.7%		Yes
<i>Clothing Stores</i>	\$39.5	\$27.9	\$11.6	17.3	29.4%		Yes
<i>Shoe Stores</i>	\$8.9	\$11.1	-\$2.2	-11.1	-24.8%		
<i>Jewelry, Luggage & Leather Goods Stores</i>	\$9.7	\$4.8	\$4.9	34.1	50.9%		
Sporting Goods, Hobby, Book & Music Stores	\$25.3	\$10.4	\$14.9	41.7	58.9%		Yes
<i>Sporting Goods/Hobby/Musical Instr Stores</i>	\$21.5	\$9.8	\$11.7	37.3	54.4%		Yes
<i>Book, Periodical & Music Stores</i>	\$3.9	\$0.6	\$3.2	72.1	83.8%	Yes	
General Merchandise Stores	\$137.8	\$22.5	\$115.3	71.9	83.6%	Yes	Yes
<i>Department Stores Excluding Leased Depts.</i>	\$90.4	\$15.9	\$74.5	70.2	82.5%	Yes	Yes
<i>Other General Merchandise Stores</i>	\$47.4	\$6.7	\$40.7	75.3	85.9%	Yes	Yes
Miscellaneous Store Retailers	\$32.6	\$64.8	-\$32.2	-33.1	-99.0%		
<i>Florists</i>	\$1.9	\$0.9	\$1.0	36.4	53.4%		
<i>Office Supplies, Stationery & Gift Stores</i>	\$9.2	\$2.0	\$7.2	64.7	78.6%	Yes	
<i>Used Merchandise Stores</i>	\$3.1	\$11.3	-\$8.1	-56.4	-258.7%		
<i>Other Miscellaneous Store Retailers</i>	\$18.3	\$50.7	-\$32.4	-46.9	-177.0%		
Non-store Retailers	\$9.1	\$1.4	\$7.7	73.4	84.7%	Yes	
<i>Electronic Shopping & Mail-Order Houses</i>	\$3.7	\$1.1	\$2.6	53.9	70.0%	Yes	
<i>Vending Machine Operators</i>	\$1.1	\$0.0	\$1.1	100.0	100.0%	Yes	
<i>Direct Selling Establishments</i>	\$4.2	\$0.3	\$3.9	87.9	93.6%	Yes	
Food Services & Drinking Places	\$91.7	\$79.3	\$12.4	7.2	13.5%		Yes
<i>Special Food Services</i>	\$3.0	\$0.1	\$2.9	92.8	96.3%	Yes	
<i>Drinking Places - Alcoholic Beverages</i>	\$2.7	\$5.6	-\$2.9	-35.0	-107.8%		
<i>Restaurants/Other Eating Places</i>	\$86.0	\$73.6	\$12.4	7.8	14.4%		Yes
Total retail	\$1,731.1	\$1,260.2	\$470.9		27.2%		

Source: ESRI, Sage

In addition to estimated demand and supply of retail sales, Exhibit 18 presents the retail gap, which is defined as estimated demand minus estimated supply. This retail gap represents one measure regarding the extent to which local businesses meet the demands for goods and services sought by county residents.

Another measure of the balance between local business and local demand is a leakage/surplus factor that measures the extent to which expected retail sales, based on the purchasing power of local residents, do not occur in the county. When demand and supply within the county are in balance, the leakage/surplus factor is zero. For instance, demand for Automobile Dealers that sell new or used cars and light trucks is estimated at \$152 million while county businesses are estimated to supply only \$8 million of that demand. The leakage/surplus factor for Automobile Dealers is 89.7 (Queen Anne's County is an importer, with many residents purchasing vehicles in Anne Arundel County or elsewhere).

Alternatively, county demand for Other Motor Vehicle Dealers that sell recreational vehicles, boats, and/or motorcycles is estimated at \$14 million, but county businesses sell \$150 million of these types of vehicles. The surplus/leakage factor for Other Motor Vehicle Dealers is -82.9 (Queen Anne's County is an exporter of this type of good/service).

An example of a retail sector that is in almost perfect balance is Grocery Stores, for which county demand is estimated at \$131.4 million and estimated county supply is \$131.9 million. The surplus/leakage factor for Grocery Stores is virtually zero (-0.2).

One sector where county demand substantially exceeds supply is non-store retailers. These establishments share the characteristic of not relying on a traditional bricks-and-mortar building to sell products. The alternatives to store-based retail are myriad and include broadcast infomercials or shopping channels (e.g., QVC), paper or electronic catalog sales (historically, Sears Roebuck represents a prime example), door-to-door solicitation, in-home demonstration (e.g., Tupperware), portable stalls (e.g., farmers markets), and vending machines.¹³

¹³ Bureau of Labor Statistics, "Industries at a Glance, Nonstore Retailers: NAICS 454".
<https://www.bls.gov/iag/tgs/iag454.htm>.

While the retail gap in the county for non-store retailers is substantial, the volume of sales is relatively small at \$9 million or about 0.5 percent of total retail demand. This sector, however, is likely to grow. Amazon, the current prime example of a non-store retailer, saw sales grow by nearly one-third in 2017 when it accounted for 4 percent of all U.S. retail sales and 44 percent of all U.S. e-commerce.^{14,15} This growth helps account for the Amazon distribution centers that have cropped up in Baltimore City, Baltimore County, Cecil County and Delaware in recent years as well as the substantial demand for logistical support services for non-store retailers from warehousing to distribution services.

In most cases, there is a positive retail gap between estimated demand and supply. This means that in the aggregate county businesses supply a level of goods below that which county residents demand. Accordingly, county residents are required to “import” at least some fraction of their goods. For all retail businesses included in Exhibit 18, estimated county demand is \$1,731 million while supply is an estimated \$1,260 million. The resulting retail gap of \$471 million represents 27 percent of total estimated demand.

At some point, demand rises sufficiently to prompt new enterprises. The widening of Route 301 may stimulate enough net new demand to trigger significant growth in the size of Queen Anne’s County commercial enterprises.

To help isolate retail sectors, which might be particularly underrepresented in the county, Exhibit 18 identifies those retail sectors for which the leakage factor exceeds 50 and those sectors for which the retail gap exceeds \$10 million. Of special interest are those retail sectors that combine these two characteristics; i.e., where the leakage factor exceeds 50 percent and the retail gap exceeds \$10 million. These sectors include the following six types of establishments:

1. Automobile Dealers
2. Furniture & Home Furnishings Stores
3. Building Material & Supplies Dealers
4. General Merchandise Stores (e.g., department stores)
5. Department Stores Excluding Leased Departments
6. Other General Merchandise Stores

¹⁴ BBC, “Amazon 2017 sales jump by nearly a third” <https://www.bbc.com/news/business-42911123>;

¹⁵ CNBC, “Amazon grabbed 4 percent of all US retail sales in 2017, new study says” <https://www.cnbc.com/2018/01/03/amazon-grabbed-4-percent-of-all-us-retail-sales-in-2017-new-study.html>.

- Recent and Potential Commercial Expansion

Interviews with local officials indicate that increased traffic from a widened US 301 has contributed to the likelihood of at least one proposed mixed-use development and may help another community realize its economic development plans more quickly. A 283-acre site (in Kent County) that borders both sides of US 301 adjacent to Millington is expected to include residential, commercial, and industrial uses.

The mayor of Millington sees that community increasingly becoming part of the commuting area for Middletown, Delaware, which is 16 miles from Millington, as development moves south from Delaware along the US 301 corridor. Officials in Centreville have already observed an increase in truck traffic and are contemplating the potential for increased traffic to spur development of roadside services targeted to the increase in commercial travelers, particularly restaurants and gasoline stations.

Discussions with local officials and others familiar with County development indicate that recent commercial development has frequently been establishments that cater to local residents. For example, Centreville is seeing the development of businesses geared to older residents sparked in part by a new senior housing development as well as other retail serving local demands.

- Capacity for Commercial Development

The 2010 comprehensive plan for Queen Anne’s County included an analysis of the maximum capacity for building new commercial and industrial establishments.¹⁶ To determine maximum capacity, the analysis began with allowed uses under existing zoning and the volume of land zoned for commercial use. This nominal capacity for development was then tempered by a range of regulations that protect resources or otherwise affect, and typically reduce, development potential.

The analysis estimated the greatest allowable development permitted under existing zoning and tempered by environmental buffer zones, land preservation easements, and other factors that limit or constrain development. Exhibit 19 summarizes the analysis and lists the existing capacity of commercial development in 2008 along with the estimated commercial development capacity in the period from 2015 to 2020 and the estimated capacity in the period from 2020 to 2030.

Importantly, the County’s plan distinguishes between development capacity in unincorporated areas of the county and the capacity in incorporated towns (i.e., Barclay, Centreville, Church Hill, Millington, Queenstown, Sudlersville, and Templeville). As noted, more than 500,000 square feet of the county-wide commercial development capacity is located in incorporated towns.

¹⁶ Queen Anne’s County, “2010 Comprehensive Plan, Appendix 5: Build Out Analysis Report”.

Exhibit 19. Maximum Build-out Capacity for Commercial Development

Development variable	Existing conditions 2008	Short-term projected conditions, 2015-2020	Long-term projected conditions, 2020-2030
Queen Anne's unincorporated areas			
Total non-residential space	10,096,366	10,737,990	12,257,990
Queen Anne's incorporated towns			
Total non-residential space	-	513,300	513,300
Queen Anne's total			
Non-residential square footage, including building and parking	10,096,366	11,251,290	12,771,290
Increase in square footage		1,154,924	1,520,000
Percentage increase		11.4%	13.5%
Increase from prior period			
Queen Anne's unincorporated areas		641,624	1,520,000
Queen Anne's incorporated towns		513,300	-
Queen Anne's total		1,154,924	1,520,000
Towns share of total		44%	0%

Source: Queen Anne's County

With more than 1.1 million square feet of commercial space available in the short-term and an additional 1.5 million square feet projected to be available in the 2020s, Queen Anne's County is extremely well-positioned to respond to emerging opportunities for new retail, business, or industrial establishments as a result of improvements to US 301 or other external stimuli. This of course presumes the requisite level of infrastructure support.

The topic of development capacity is also addressed by plans for incorporated towns. Since some of these plans were issued in 2009 or earlier, town officials in some cases updated development capacity estimates for this analysis. These plans and updated information often distinguish between capacity within existing town borders and potential growth areas or annexation areas adjacent to the towns. Estimates of commercial development are typically presented in terms of square feet of developable space.

As indicated in Exhibit 20, total development capacity approaches 3 million square feet of space, an estimate substantially larger than the capacity estimate in the County's comprehensive plan. These 3 million square feet are roughly equally divided between land within town boundaries and land that could be annexed by the towns. Space availability shown in the exhibit reflects updated information pertinent to several town plans. This estimate of the potential for non-residential development based on town plans is consistent with the notion from the County's comprehensive plan that there is plentiful developable land in Queen Anne's County within the US 301 corridor to respond to emerging opportunities.

Exhibit 20. Commercial Development Capacity Estimates for Incorporated Towns

Incorporated town	Commercial development capacity	
	Within town boundaries	Adjacent to town boundaries in growth or annexation areas in QAC
Barclay (1)		100 acres
Centreville	383,000 square feet	
Church Hill	34 acres / 23,000 square feet	17 acres
Millington (2)		619,589 square feet
Queenstown (3)	675,000 square feet	885,000 square feet (4)
Sudlersville (2)	360,000 square feet	
Total, QAC incorporated towns	34 acres / 1,441,000 square feet	117 acres / 1,504,589 square feet

Source: Incorporated town plans as updated by town officials. Notes: 1. As of the date of this Sage report, Barclay was in the process of annexing the 100 acres noted in the exhibit. 2. Data for Millington and Sudlersville are taken from their town plans which were issued in 2014. 3. Queenstown includes Wheatlands annexation as this is part of the incorporated town. 4. Capacity includes Dudley South and Dudley North growth areas.

Critically and perhaps obviously, while this capacity is based on land zoned for retail, industrial, or other non-residential uses, various town plans note that water and sewer services are generally not available in potential growth areas. Thus, investment by the public or private developers in these services would need to occur for this capacity to be developed. The individual town plans also note other actions that should occur as part of developing this capacity, including street and other access improvements and, for potential business parks, design controls that can enhance the attractiveness and value of these properties for businesses that might be attracted to these locations.

An extreme example of space demands might be a large distribution center. As noted later in this report, a Wal-Mart distribution center developed in Somerset County in 2004 occupies 450,000 square feet of space, which represents a considerable share of estimated commercial capacity, but is within the county's current abilities. Queen Anne's comprehensive plan's build-out analysis notes that the Prime Outlets Shopping District in Queenstown occupies approximately 340,000 square feet. More typical commercial development would likely be much smaller in scale. Restaurants that might be developed in response to increasing through traffic typically occupy less than 5,000 square feet.¹⁷ Businesses serving local markets would also likely be relatively small in terms of square footage.

¹⁷ Tim Beyers, "McDonald's vs. Chipotle: Can You Guess Which Is the Better Business?". <https://www.fool.com/investing/general/2014/10/26/mcdonalds-vs-chipotle-can-you-guess-which-is-the-b.aspx>.

Housing Demand

Rising population enhances demand for housing. Exhibit 21 presents projected growth in the number of households in Queen Anne’s County, the Upper Eastern Shore region and Maryland. Between 2010 and 2030, the county is expected to experience a net increase of 3,872 households. This represents a 21.5 percent increase in county households over that 20-year period. As shown, the percentage increase in the county is above the projected increase for the Upper Eastern Shore and substantially higher than the statewide projection.

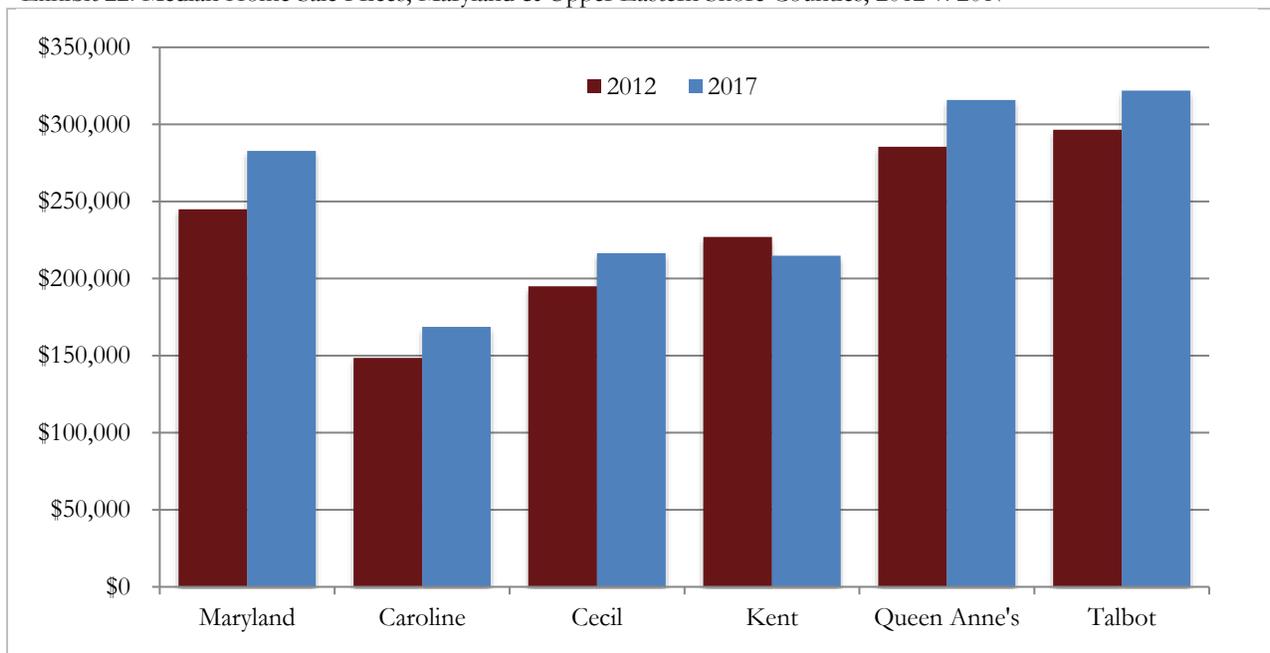
Exhibit 21. Historical & Projected Number of Households, 2010-2030

	Total Households			2010-2030 Projected		
	2010 Census	2020 Proj.	2030 Proj.	Net	%	CAGR
Maryland	2,156,411	2,325,516	2,503,843	347,432	16.1%	0.75%
Upper Eastern Shore Region	91,363	97,154	108,033	16,670	18.2%	0.84%
Queen Anne’s County	18,016	19,598	21,888	3,872	21.5%	0.98%

Source: *Maryland Department of Planning*. Projections to 2045. August 2017. Note: Upper Eastern Shore region includes Caroline, Cecil, Kent, Queen Anne’s, and Talbot counties.

The housing market that serves these county households is among the most valuable for the Upper Eastern Shore counties and is significantly more valuable than the typical house in the state of Maryland. Exhibit 22 shows median home sales prices for each of the Upper Eastern Shore counties and Maryland. As indicated, 2017 median prices in Queen Anne’s County exceeded \$300,000. Only Talbot County registered similar prices among the jurisdictions shown.

Exhibit 22. Median Home Sale Prices, Maryland & Upper Eastern Shore Counties, 2012 v. 2017



Source: Maryland Association of Realtors (MAR)

Baseline increases in housing presented above may well underestimate new household formation in Queen Anne’s County if an improved US 301 encourages more people to decide to make the county

their home. Exhibit 23 presents a possible bump in county households that assumes the baseline growth from 2010 to 2020 is increased 5 percent. That is, the baseline increase of 1,582 households grows to 1,661 households. For the period from 2020 to 2030, the baseline growth is increased by 10 percent from 2,290 net new households to 2,519 net new households.

The most likely impacts of an improved US 301 on housing demand might be in the northern reaches of the county. Indeed, as noted earlier, there is a significant development project on the outskirts of Millington that may be a harbinger of these impacts. This project comprises almost 300 acres (as noted earlier, in Kent County) astride US 301 and lies within approximately 15 miles of Middletown, Delaware. As the mayor of Millington noted, Middletown is “built out” and new growth, stimulated by recent developments like the Amazon distribution center, is spilling over into Maryland. An improved US 301 can ease commuting from these northern areas of the county to Middletown and other areas in Delaware.

Exhibit 23. Queen Anne County Households: Baseline and Possible 301 Bump, 2010-2030

	Total Households			2010-2030 Projected		
	2010 Census	2020 Proj.	2030 Proj.	Net	%	CAGR
QAC: Baseline	18,016	19,598	21,888	3,872	21.5%	0.98%
QAC: With 301 Bump	18,016	19,677	22,196	4,180	23.2%	1.05%

Source: Maryland Department of Planning. Projections to 2045, Sage

New households translate into a larger housing stock and increases in the real property tax base and in County property taxes. Exhibit 24 presents the potential impacts that an improved US 301 might have on the county’s tax base and property taxes if there were an increase in households as outlined above. The typical home price is based on recent sales prices as reported by the Maryland Association of Realtors. The baseline increase in county households is linked to a potential increase of \$1.4 billion in the real property tax base and \$12 million in County property taxes. If an improved US 301 led to 308 new households, the value of that bump in housing demand might be \$100 million in the real property tax base and \$0.85 million in annual County property taxes.¹⁸

Exhibit 24. Potential Impact of Increased Housing Demand by 2030

	Baseline Assumptions	Potential Bump From 301
Typical home price	\$325,000	\$325,000
Housing demand	4,180 households	308 households
Increase in real property tax base	\$1,358.5 million	\$100.1 million
Increase in County real property tax	\$11.5 million	\$0.85 million

Source: Maryland Department of Planning. Projections to 2045, Maryland Association of Realtors, Queen Anne’s County, Sage

¹⁸ Estimated real property taxes are based on the County real property tax rate of \$0.8471 per \$100 assessed valuation as noted in Queen Anne’s County, “County’s Tax Rates”. <https://www.qac.org/1188/Countys-Tax-Rates>.

Each new household will also contribute to local income taxes. Based on the recent median income for county households and the effective County tax rate¹⁹, a new household would generate over \$2,000 in such taxes. As a result, the increase in housing demand that might arise from the improvements to US 301 could increase local income tax revenue for the County by more than \$600,000 as shown in Exhibit 25.

Exhibit 25. Potential Impact of Increased Housing Demand by 2030

	<i>Potential Bump From 301</i>
Median household income, 2016	\$85,891
Local income tax per household	\$2,052
Number of households	308 households
Increase in County local income tax	\$632,276

U.S. Census Bureau, Maryland Comptroller, Sage

- Being in the Middle of Things without Being in the Middle

Another reason for a bump in housing demand might be a larger trend affecting how work is organized and conducted in an increasingly service-oriented economy. The discussion below illustrates trends that are providing an increasing number of workers unprecedented freedom in choosing where to live in relation to where their employers are located. As improvements to US 301 eliminate transportation bottlenecks and congestion in a megalopolis that stretches from Philadelphia to Washington, DC, the improved highway network opens the door a little wider for those who want to live in more rural settings while working primarily from home for companies located in this broad urban area.

According to some observers of workplace trends, there is an increasing interest in and demand for workplace flexibility that allows employees more freedom to telecommute or work from home at least part of the time. These demands arise from several sources: the increasing capacity of technology to provide workers with mobile tools, the blurring of lines between formal work sites and the personal time of workers in an increasingly 24/7 work environment, and globalization that connects workers in disparate parts of the world.²⁰

The advent of the “gig economy” also serves to deemphasize the traditional concept of a workplace. White-collar workers choose freelancing and entrepreneurship to gain more control over work lives and increase their options for flexibility. The retirement of the boomer generation is also expected to generate more consulting assignments as retired leaders are hired back to help transition younger executives into the leadership roles Baby Boomers have left. Another demand for flexibility may

¹⁹ In 2016, Queen Anne’s County collected over \$43 million in local income tax from a total state adjusted gross income of \$1.8 billion according to the Maryland Comptroller’s summary of income taxes. The net effective local rate is an estimate of actual tax receipts based on these data. The nominal County local tax rate is 3.2 percent. Source: Comptroller of Maryland, “Income Tax Summary Report: Tax Year 2016”.

https://finances.marylandtaxes.gov/static_files/revenue/incometaxsummary/summary16.pdf.

²⁰ Schawbel, Dan, “10 Workplace Trends You’ll See In 2016,” Forbes, November 1, 2015

<https://www.forbes.com/sites/danschawbel/2015/11/01/10-workplace-trends-for-2016/#1e72a07e237f>.

arise from the expected new baby boom as the Millennial generation reaches prime child-bearing years in the near future.²¹

The upshot of these and other changes in the workplace is a remarkable movement towards telework (defined as the substitution of technology for travel) and telecommuting (the substitution of technology for commuting to work). While these distinctions may be subtle, the result is an ever-expanding pool of people who are able to earn a living without showing up at a traditional, physical workplace some or all of the time.

A recent analysis of U.S. Census data on commuting patterns finds that 80 to 90 percent of the U.S. workforce would like to telework at least part-time and that 20 to 25 percent of that workforce teleworks routinely. Meanwhile, Fortune 1000 companies are redesigning workspaces because they have determined that their employees are already mobile and not at their desks 50 to 60 percent of the workday. The average telecommuter is a college-educated, 49-year-old earning \$58,000 annually as an employee of a company with more than 100 employees. Three out of four employees working from home earn enough to be placed in the upper 80th percentile of all employees, whether they work from home or at an office.²²

Excluding the self-employed, the regular work-at-home population grew 103 percent from 2005 to 2014. Nearly 3 percent of the employee workforce (3.7 million employees) worked from home at least half time in 2014. While the total employee population grew 1.9 percent from 2013 to 2014, the telecommuting employee population grew 5.6 percent during that timeframe.

Again, these data exclude the self-employed. Roughly 22 percent of self-employed persons primarily work from home.²³ According the U.S. Bureau of Labor Statistics, 15 million people were self-employed in the U.S. in 2015, roughly 10 percent of the total workforce.²⁴

A study by the Gallup organization found similar trends in telecommuting. Although the trend in telecommuting dipped during the 2008 recession, there has been a steady increase in this practice since 1995 as indicated in Exhibit 26. A majority of these telecommuters were college graduates earning more than \$75,000 annually. These workers telecommuted 6.4 days a month on average, that is, about one-third of the time. Almost one in four telecommuters did so more than 10 days a month (i.e. at least half of all workdays in a month). A significant majority (58 percent) of all Americans — employed and unemployed — believe that telecommuters are just as productive as

²¹ Ibid.

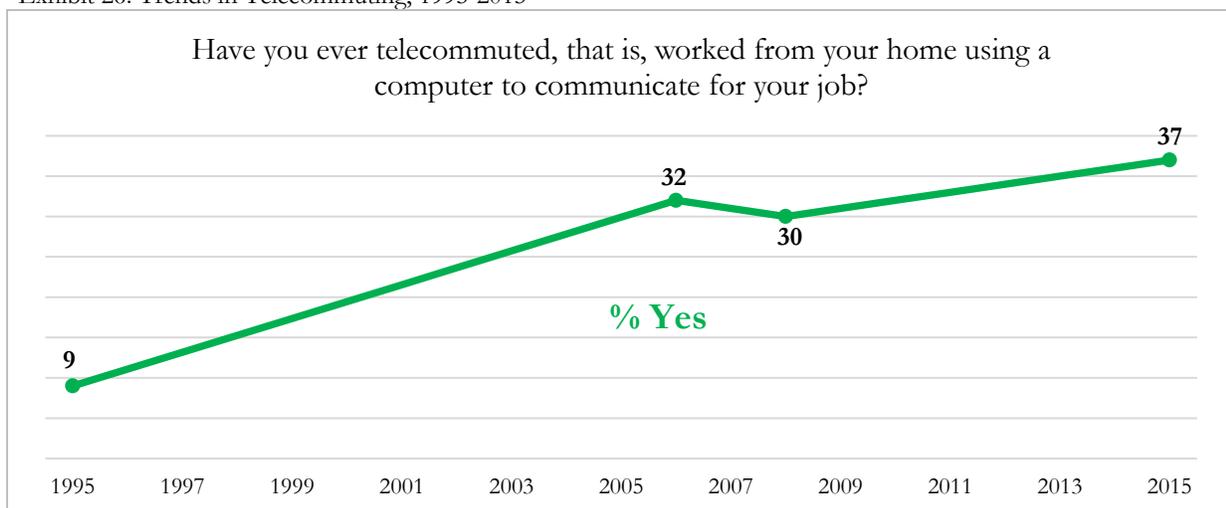
²² “Latest Telecommuting Statistics,” GlobalWorkplaceAnalytics.com, January 2016.
<http://globalworkplaceanalytics.com/telecommuting-statistics>.

²³ Ibid.

²⁴ Bureau of Labor Statistics, “Self-employment in the United States,” March 2016.
<https://www.bls.gov/spotlight/2016/self-employment-in-the-united-states/home.htm>.

office-based workers. Moreover, Gallup found that workers who spend time working remotely are more likely to be engaged in their jobs than those who never work remotely.²⁵

Exhibit 26. Trends in Telecommuting, 1995-2015



Source: Gallup

There is evidence that these emerging patterns will persist. A reported 83 percent of human resource professionals indicate that telecommuting would be more prevalent over the next five years. The same source reports a 26 percent increase in remote job listings at the FlexJob website.²⁶ Additionally, FlexJob compiled a list of the 100 top companies posting “remote” jobs (i.e. those with telecommute, work-from-home, or virtual work options) in 2015. This list of companies most likely to be offering remote jobs included small and large businesses and organizations in a variety of industries. Among them were such well-known companies and organizations as Amazon, Apple, IBM, SAP, Xerox, Dell, American Express, General Electric, Intuit, the U.S. Department of Agriculture, University of Maryland University College, the American Heart Association, Teach For America, 3M, and Nationwide Insurance.²⁷

For Queen Anne’s County, these workplace trends indicate that there exists a significant and growing share of the workforce who can work from anywhere. Whether they are young professionals interested in freelancing or employees of major companies, an expanding number of U.S. workers have the ability to link their place of work with their place of residence. Those who can work from home some, most, or all the time also are likely to be well educated, professional, or white-collar workers with above-average earning potential.

²⁵ Jones, Jeffrey M., “In U.S., Telecommuting for Work Climbs to 37%,” Gallup, August 19, 2015. <http://www.gallup.com/poll/184649/telecommuting-work-climbs.aspx>.

²⁶ Howington, Jessica, “16 Reasons Working from Home Is More Than a Trend,” January 19, 2015. <https://www.flexjobs.com/blog/post/15-reasons-working-from-home-trend/>.

²⁷ Reynolds, Brie Weiler, “100 Top Companies with Remote Jobs in 2015,” January 20, 2015. <https://www.flexjobs.com/blog/post/100-top-companies-with-remote-jobs-in-2015>.

This means that jobs that have historically been in central business districts or suburban office parks will increasingly be situated in fresher contexts. The emergence of a creative class suggests that many entrepreneurs and their workers will be looking for places that can inspire. The typical suburban office park does not inspire, but a home office in northern Queen Anne’s County certainly could. This is not to suggest that there will not continue to be many employers who will pursue workspace more prosaically. But even in this regard, Queen Anne’s County offers advantages. Situated between Philadelphia and the Washington-Baltimore regions with proximity to Wilmington, DE, the county can support demand for those office users seeking to be proximate to a large, highly-educated labor force.

Telecommuting and telework often tend to be associated with younger, more technologically sophisticated workers. These young workers are the basis for bullish sentiments regarding the nation’s housing market as household formation rates rise, wages begin to increase, and job openings reach prerecession highs.²⁸ Though the housing market is presently retrenching a bit due largely to home price increases in recent years and higher mortgage rates, first-time homebuyers are predicted to help fuel a robust housing market in the future.²⁹ The decade of the 2020s is likely to be one especially associated with rising homeownership as family formation among Millennials accelerates.

One key to this telecommuting-telework culture is high quality access to the Internet. Programs to encourage “rural broadband” represent a response to this need. This is hardly a novel concept. Indeed, the need for expanded broadband has represented a crusade for many from Eastern Shore communities for well over a decade.

In January 2004, a strategic plan for a broadband network for the Eastern Shore was delivered to the region’s county governments.³⁰ That plan sought to identify best practices for implementing network solutions to fill gaps in Internet access with the goal of improving economic opportunities for businesses and residents of the region. By many accounts, Kent County has been the leader among Eastern Shore counties in implementing rural broadband, winning a best practices award from the Maryland Association of Counties in 2016.³¹ By working to fill any continuing gaps in high quality Internet access, Queen Anne’s County can benefit both local businesses and residents. The benefits to residents may also be an additional incentive for those who telecommute to seek homes in the more rural parts of the County.

²⁸ Gross, Charles and Brian Bernard, “We’re Bullish on a Housing Recovery,” Morningstar, April 12, 2017. <http://news.morningstar.com/articlenet/article.aspx?id=802287>.

²⁹ Collins, Gord, “US Housing Market Forecast – Strong 2017 to 2020,” April 1, 2017. <http://www.gordcollins.com/real-estate/us-housing-market-looking-strong-2016-to-2020/>.

³⁰ TLA Associates, “The Maryland Eastern Shore Broadband Network Strategic Plan,” January 13, 2004. <http://lowershore.org/Portals/0/Public/Committees/13/Eastern%20Shore%20Final%20Broadband%20Study.pdf>.

³¹ Kent County, “Kent County Fiber Network”. <http://fiber.kentcounty.com/>.

- Capacity for Residential Development

The 2010 comprehensive plan for Queen Anne’s County included an analysis of the capacity for building new housing. As with the commercial development, this analysis looked at development permitted under existing zoning and tempered that capacity by constraints including environmental buffer zones, land preservation easements, and other factors that limit or constrain development.

As indicated by the data presented in Exhibit 27, the current estimated capacity for households countywide is in excess of 23,000 and is expected to increase to almost 27,000 by 2030. The corresponding estimated and projected number of households ranges from 18,456 in 2015 to 19,598 in 2020. By 2030, the number of households in the county is projected to be 21,888. Clearly, any expected growth in housing demand even if an improved US 301 leads to a substantial increase in demand would be well within the current capacity of the county’s zoned capacity for residential development.

The County plan also distinguished between capacity in the incorporated towns and the unincorporated areas of the County. As noted in the exhibit, capacity for roughly 8,000 additional housing units was estimated to be available between 2008 and 2030. Approximately 30 percent of this capacity was located in incorporated towns (i.e. 2,420 units) with the remainder located in unincorporated areas.

Exhibit 27. Maximum Build-out Capacity for Residential Development

Development variable	Existing conditions, 2008	Short-term projected conditions, 2015-2020	Long-term projected conditions, 2020-2030
Queen Anne’s unincorporated areas			
Housing units	18,860	22,368	24,566
Queen Anne’s incorporated towns			
Housing units		1,099	2,420
Queen Anne’s total			
Population	47,091	59,161	71,261
Households	18,860	23,467	26,986
Increase in households		4,607	3,519
Percentage increase		24.4%	15.0%
Increase from prior period			
Queen Anne’s unincorporated areas		3,508	2,198
Queen Anne’s incorporated towns		1,099	1,321
Queen Anne’s total		4,607	3,519
Towns share of total		24%	38%

Source: Queen Anne’s County

As was true for commercial space, the topic of residential development capacity is also addressed by town plans. These plans often distinguish between capacity within existing town borders, usually designated as infill development, and potential growth areas or adjacent annexation areas. Estimates of residential development are presented as housing units (often estimated at 3.5 units per acre of land zoned residential). As shown in Exhibit 28, the total residential development capacity exceeds 10,000 housing units, an estimate substantially larger than the capacity estimate in the County’s comprehensive plan. While this capacity is based on land zoned as residential, the plans note that water/sewer services are generally not available in potential growth areas. Thus, this capacity would need to be activated through investment by the public sector and/or by private developers.

Exhibit 28. Residential Development Capacity Estimates in Incorporated Town Plans

Incorporated town	Development capacity (housing units)
Barclay—potential growth area	57
Centreville—growth area	4,967
Centreville—infill	731
Church Hill—growth area	665
Church Hill—infill	300
Millington—annexation area	1,033
Millington—current town	934
Queenstown	39
Sudlersville	1,494
Templeville—expansion area	147
Templeville—infill	15
Total, QAC incorporated towns	10,382

Source: Incorporated town plans

Industrial Development

- A Revolution in Logistics

The movement of goods represents an essential component of the economy. Indeed, the Maryland Department of Transportation developed a plan to guide the strategic movement of goods that recognizes this critical contribution.³² Roughly half of the state’s employment is in the freight transportation and warehousing industry or in industries that are dependent on the freight transportation and warehousing industry. These freight-related industries also contribute over half of the state, local, and federal taxes generated by Maryland’s economy. This is especially remarkable given the state’s association with “feds, meds, and eds”, a reference to the large role of the federal government, medical research/healthcare, and higher education sectors.

That Maryland supply chain plan recognizes various trends that directly impact the movement of goods. Maryland’s population and economy are expected to continue to grow, which will lead to continued growth in the volume of freight moving in Maryland. Despite these increasing demands, the plan found that the transportation and logistics workforce is insufficient to meet current or projected demand. The state’s transportation assets were also characterized as approaching the end of their useful lives in far too many instances.

Although, the primary freight corridors in Maryland are I-95 and the interstate beltways around Baltimore and Washington, the plan also designates “Critical Rural Freight Corridors”—principally US 301 and US 50. The competitive advantage of these rural corridors can be seen in the estimates of the costs of congestion on Maryland’s major highways. Not surprisingly, congestion is taking a growing toll across the state. The cost of congestion, however, is totally driven by the major highways in the Baltimore and Washington region. These costs are falling in the rural areas of the state with the largest absolute drop being experienced on the Eastern Shore as indicated in Exhibit 29.

Exhibit 29. Total Cost of Congestion on Maryland Freeways/Expressways

Location	2013	2014	2015	Change 2014 - 2015	
Statewide	\$1,676	\$1,698	\$2,052	\$354	21%
Baltimore Region	\$681	\$686	\$806	\$120	17%
Washington Region	\$949	\$954	\$1,222	\$268	28%
Eastern Shore	\$31	\$47	\$20	-\$27	-57%
Southern Region	\$4	\$5	\$1	-\$4	-80%
Western Region	\$11	\$6	\$3	-\$3	-50%

Source: Maryland Department of Transportation

³² Maryland Department of Transportation, “2017 Maryland Strategic Goods Movement Plan”.
http://www.mdot.maryland.gov/newMDOT/Freight/Documents/2018/Strategic_Goods_Movement_Plan_2017.pdf.

The Delaware Department of Transportation prepared a freight plan for the entire Delmarva Peninsula. This plan identifies US 301 as the “Bay Freight Corridor”, which serves as a major freight corridor for the Delmarva Peninsula and is recognized for its potential as an alternative to I-95. Under baseline growth scenarios presented in the plan, this corridor is expected to experience modest increases in truck traffic over the planning period (2010 to 2040). The plan found, however, that accelerated growth (i.e. more population and economic activity than the baseline projection) would lead to a significant increase in truck traffic.³³

- Distribution in the E-Commerce World

Enhanced roadway connectivity will increase the appeal of Queen Anne’s County for distributors and the logistics industry. These activities often take place in warehouses or in flex space, which is essentially office space supported with loading docks.

As online commerce increasingly becomes the norm, there has been a decided shrinking of certain brick-and-mortar retail operations. According to FGRT (formerly Fung Global Retail & Technology), nearly 7,000 store closure announcements had been made in the U.S. by late-2017 (nearly 1,500 involved RadioShack), up about 200 percent from a year earlier.³⁴

In the place of physical stores, distribution centers and delivery services have expanded rapidly. There is every reason to believe that growth in the logistics/distribution sector will continue well into the future. Observers of the nation’s retail industry have declared that the sector has reached a tipping point. From 2010 to 2014, the value of e-commerce sales grew at an annual rate of \$30 billion. During the three subsequent years, annual growth rose to \$40 billion.

By contrast, since 2016, more than 100,000 retail workers have been laid off (more workers than are employed by the U.S. coal industry). The rate of store closures in 2017 was estimated to exceed the number of closures experienced during the worst of the Great Recession.³⁵ The effect on brick-and-mortar retail has been devastating, with so-called “zombie malls” increasingly dotting American suburbs. Vibrant shopping malls have become exceptions to the rule.³⁶ This sea-change in retail means that the shopping experience will increasingly be online supported by an ever-increasing number of the massive logistics/distribution centers.

³³ Op. cit., Delaware Department of Transportation, “Delmarva Freight Plan,”

³⁴ Thomas, Lauren. “Store closures rocked retail in 2017. Now 2018 is set to bring another round of them”. CNBC. 12/26/2017. <https://cnb.cx/2Cb2w1m>.

³⁵ Corkery, Michael, “Is retail at a historic tipping point?” The New York Times, April 16, 2017.

³⁶ Granville, Kevin, “How we shop: Past, present future,” The New York Times, April 16, 2017.

Maryland and Delaware are no strangers to this phenomenon. Cecil County astride I-95 has become a hotbed of distribution centers over the past decade or more with Amazon becoming a recent addition to the mass of other centers already there. Delaware is the site of two Amazon distribution centers with the one in Middletown occupying 1.2 million square feet. Amazon's presence has reportedly spurred substantial growth in Delaware's distribution industry with the state adding almost 30 new companies over the past five years and employment exceeding 5,100, more than twice the level in 2013.³⁷

Even without the million-plus square-foot distribution centers that have sprung up in recent years, the potential impact of a new distribution center could be significant. Wal-Mart, for example, operates a distribution center in Somerset County that occupies 450,000 square feet and reportedly employs approximately 450 workers.³⁸ This is in addition to the million-square-foot distribution center that Wal-Mart operates in Smyrna, Delaware.

As noted by local officials, an improved US 301 could spur existing plans to site distribution and logistics operations along the highway. By removing bottlenecks in Delaware, highway improvements could not only provide an alternative to I-95 between Wilmington and the Washington region, but could also make access to the Philadelphia region much simpler.

Centreville is home to a business park on Route 213 within a mile of US 301 that could accommodate a distribution center. Centreville's economic development plan identifies logistics as a growth industry with potential development at two sites adjacent to US 301. The study team concludes that the arrival of at least one major distribution center to Queen Anne's County is likely.

It should be noted that the County has enacted restrictions on "big box" stores that preclude structures larger than 65,000 square feet. However, as noted in a recent meeting of the Economic Development Commission, this restriction is only applicable to unincorporated areas of the County.³⁹ Thus, the incorporated towns along the US 301 corridor could host a distribution center or other structure that exceeds 65,000 square feet.

³⁷ Goss, Scott, "Amazon adding 'hundreds' of new jobs in Delaware," The News Journal, August 24, 2017. <https://www.delawareonline.com/story/money/business/2017/08/24/amazon-adding-hundreds-new-jobs-delaware/594236001/>.

³⁸ "Wal-Mart Distribution Center Coming to Somerset County," WBOC TV, November 24, 2004. <http://www.w boc.com/story/2606605/wal-mart-distribution-center-coming-to-somerset-county>.

³⁹ Queen Anne's County Economic Development Commission, Business Meeting, September 26, 2018

Based on the characteristics of the Wal-Mart distribution center in Somerset County and a recent estimate of distribution center wages, the potential impacts of a new distribution center in Queen Anne’s County can be estimated. As shown in Exhibit 30, a major distribution center would add more than \$22 million to the county’s real property tax base and increase County real property tax revenue by \$190,000. Such a center could add 450 jobs to the county’s employment base and almost \$17 million to the county’s payrolls assuming the national average annual wage of approximately \$37,600.⁴⁰

Exhibit 30. Potential Economic and Fiscal Impacts of a Distribution Center

Development parameters	Values
Square feet	450,000
Increase in real property tax base	\$22,500,000
Increase in County real property tax	\$190,598
Jobs	450
Average wage	\$37,600
Payroll	\$16,920,000

Source: WBOC TV, The News Journal

The expansion of the distribution industry has sometimes been an impetus for other business development. This has been true in Cecil County and Somerset County as well as in Delaware.

Moreover, any new industry will have a multiplier effect on the local economy. Statewide in Maryland, every dollar of revenue for a distribution center generates another \$0.79 in revenue for businesses that supply goods and services to the distribution center and businesses that benefit from the spending of wages earned by workers at the distribution center and the center’s supply chain. Similarly, every dollar of wages will generate additional \$0.53 in wages for other workers in the supply chain and in the consumer economy.

Based on Sage’s economic model for Maryland, each distribution center job generates a total of 0.63 jobs in the supply chain and the consumer economy. Most of these multiplier effects are concentrated in the area around the industry’s location. Thus, Queen Anne’s County would capture most of this multiplier effect.

⁴⁰ Op. cit., Goss. Estimate for wages is based on annual average for warehouse and storage workers in Delaware following the boom in that sector in the past several years.

- Economic Zones and Business Investment

To spur investment, government can and often does designate certain areas as priority economic development zones. Two such zones in Queen Anne’s County may offer incentives to investors that can facilitate industrial and business development.

The Town of Church Hill and most of the Route 213 corridor have been approved as one of 149 Opportunity Zones in Maryland. These zones are intended to attract economic activity to distressed communities by reducing tax liabilities for investors.⁴¹ The widening of US 301 combined with the tax benefits associated with investing in Opportunity Zones may come to represent another tipping point in the endeavor to expand commercial tax base.

Additionally, Baltimore Foreign Trade Zone #74 may ultimately be expanded to include a portion of the county. Importantly, the proposed area is essentially aligned with the US 301 corridor, as shown in Exhibit 31, rendering this highly promising. These federally designated zones are designed to promote import and export businesses. Given our expectation that distributors will locate to Queen Anne’s County as a result of improvements along US 301 even absent this foreign trade zone designation, it is conceivable that Queen Anne’s County will ultimately become home to a range of global distributors, many of them small- to mid-sized and specializing in certain types of products.⁴²

By creating incentives for investors, these zones may facilitate development that serves local markets or conceivably even businesses with global reach. As noted in interviews conducted for this analysis, Church Hill and the Route 213 corridor from US 301 have already experienced an uptick in business development that has taken advantage of existing space. These businesses serve local markets and some have relocated from nearby counties.

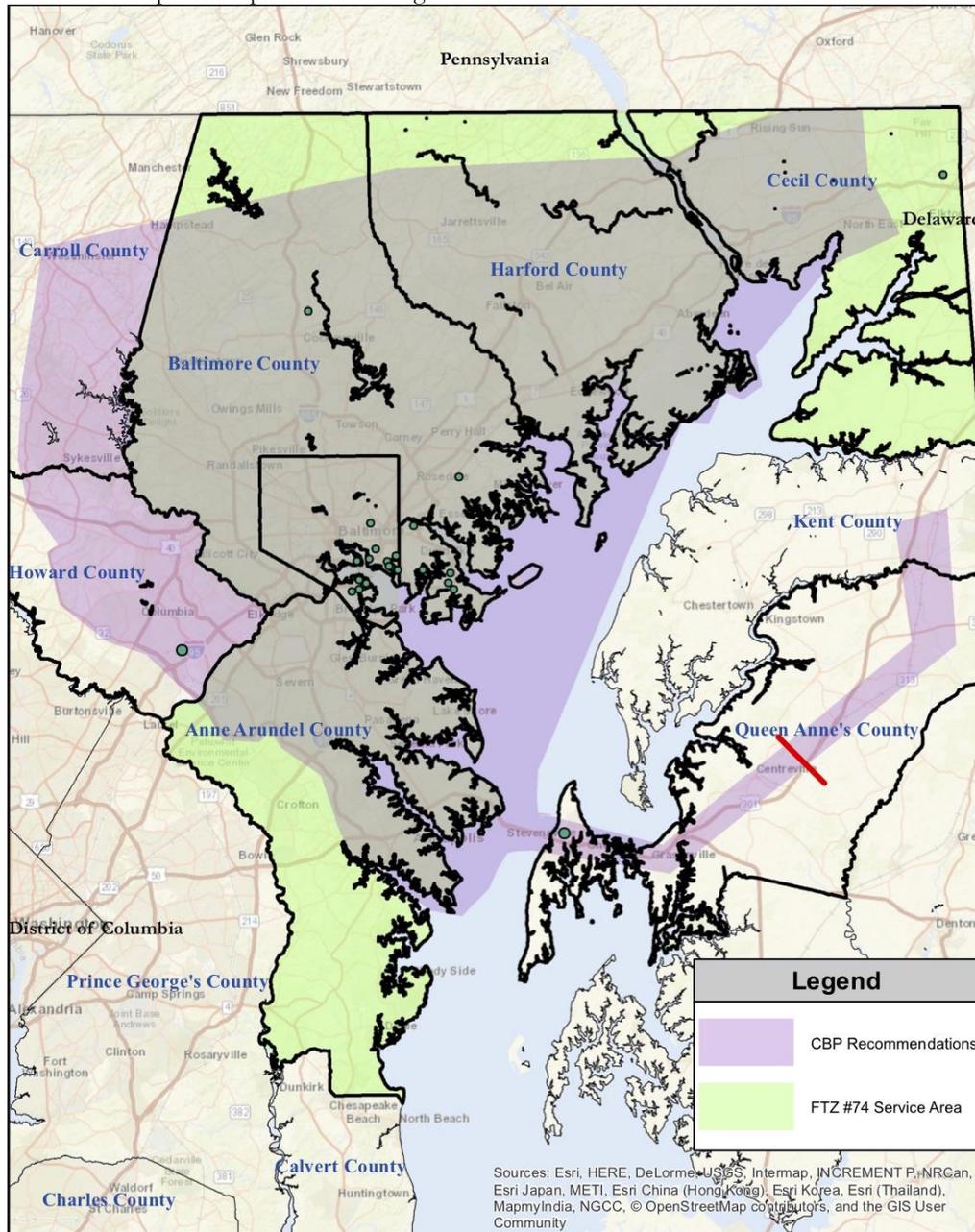
The Eastern Shore is also home to a number of businesses that serve non-local and even global markets. These include manufacturers of industrial refrigeration equipment, food processing equipment, specialized heating and cooling units, and woven wire mesh products. Other businesses manage national fleets of commercial vehicles and provide fulfillment services for global nongovernmental organizations.

Should the Foreign Trade Zone expansion into the county be finalized, the county and the towns along the US 301 corridor would have more reason to focus on existing plans to develop industrial and business parks that are already on their drawing boards. This would entail extensions of public utilities and potentially the development of commercial/industrial space.

⁴¹ Department of Housing and Community Development, “Maryland Announces Selection of State’s New Opportunity Zones,” April 20, 2018. <http://news.maryland.gov/dhcd/2018/04/20/maryland-announces-selection-of-states-new-opportunity-zones/>.

⁴² Baltimore Development Corporation, “Baltimore Foreign Trade Zone #74”. <http://baltimoredevelopment.com/initiatives/foreign-trade-zone/>.

Exhibit 31. Proposed Expansion of Foreign Trade Zone #74 Service Area



Source: Baltimore Development Corporation, November 2017.

Tourism & Visitation

The hospitality industry represents yet another potential beneficiary of improved transportation access to Queen Anne’s County. Logically, the easier it is to reach the county, the more likely it is that visitors would come.

Visitors to Queen Anne’s County already generate significant contributions to local government finances and the economy. The Maryland Office of Tourism tracks the fiscal impacts of spending by tourists and visitors.⁴³ More than half of these impacts are generated at restaurants and other food-related establishments. Retail and lodging account for about one-third of sales tax revenues. As noted in Exhibit 32, Queen Anne’s County received \$3.8 million in direct consumer taxes from visitors in FY 2017. This represented about one-fifth of total receipts for counties of the Upper Eastern Shore.

Exhibit 32. Tax Impacts of Tourism on the Upper Eastern Shore, FY2017

County	Total direct consumer tax impact (thousands)	Share of total
Caroline	\$753	4.5%
Cecil	\$5,256	31.7%
Kent	\$1,334	8.1%
Queen Anne’s	\$3,769	22.8%
Talbot	\$5,447	32.9%
Total	\$16,559	100.0%

Source: Maryland Office of Tourism

A report regarding the impacts of tourism on the county found there were almost 206,000 day visitors and over 170,000 overnight visitors in 2016.⁴⁴ These visitors spent \$141 million in the county. Thus, on average, a visitor to the county spent about \$375 during her or his visit. Not surprisingly, most of these visitors were Marylanders (37 percent); however, nearly as many visitors came from Pennsylvania (35 percent). The most popular activities for visitors were nature (72.3 percent), family/life events (61.6 percent), and outdoor sports (49.1 percent).⁴⁵

Another measure of the impact of this industry is the County’s receipts of hotel/motel tax revenue. Exhibit 33 shows these revenues on an annual basis from 2006 through 2017. Revenue has been expanding briskly in recent years after a period of stagnation. Overall, receipts in 2017 compared to receipts in 2006 reflect an average annual increase of about 2 percent. While revenues have fluctuated throughout this period, since 2014, there has been a steady increase in receipts. Total

⁴³ Maryland Office of Tourism, “FY 2017 Tourism Development Board Annual Report”.

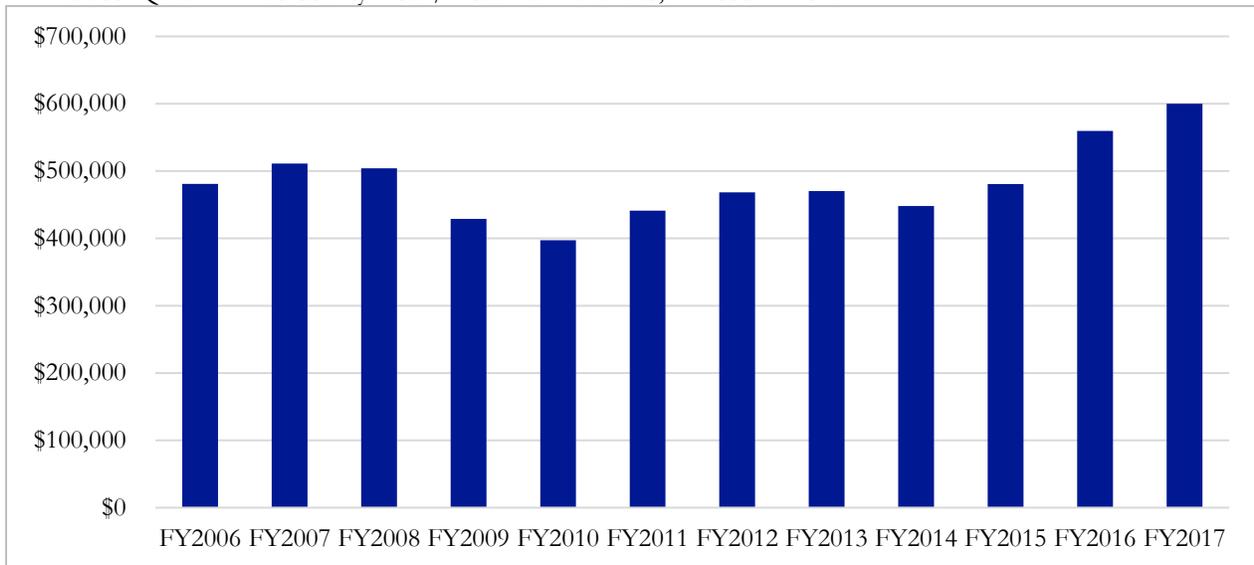
http://industry.visitmaryland.org/wp-content/uploads/2017/11/18MD_FY18_AnnualReport_HR.pdf.

⁴⁴ The report, “Summary of Tourism Impact Queen Anne’s County,” was provided by Ashley Chenault, Queen Anne’s County Tourism Coordinator.

⁴⁵ Examples of activities within these broad categories include the following. Nature: beach/waterfront, parks, camping, and wildlife viewing. Family/Life Events: visiting friends and relatives, wedding, reunion, holiday, and funeral. Outdoor Sports: boating/sailing, golf, tennis, extreme sports, water sports, fishing, hunting, winter sports, hiking, and biking.

revenues over that three-year period have increased by 34 percent, representing an annual average increase of 10 percent.

Exhibit 33. Queen Anne’s County Hotel/Motel Tax Revenues, FY2006-FY2017



Source: Queen Anne’s County Open Data, “Queen Anne’s County Operating Revenue - July 1, 2005 through May 21, 2018”. <https://data.qac.org/Budget-Finance/Queen-Anne-s-County-Operating-Revenue/3mgn-tth6>.

- Challenges & Opportunities

A 2014 report by Longwoods International studied Maryland’s image as a travel destination versus its key competitor states in the Mid-Atlantic region: New Jersey, New York, Pennsylvania, Virginia, and Washington, D.C.⁴⁶ The primary motivators for travelers in the region were excitement, family atmosphere, and adult appeal. As evaluated by a summary variable (“a place I’d really enjoy visiting”), Maryland fared significantly worse than New York and Washington, D.C. Only New Jersey was ranked lower than Maryland. Alternatively, Maryland was seen as an “excellent value” with only Pennsylvania being seen as a better value. Maryland also ranked higher than most of its competitors as a sports and recreation destination, including particular strengths in areas including boating/sailing, coastal/waterfront areas, local cuisine, swimming/water sports, and relaxation. Unfortunately, the study stated that these strengths were not considered important in making travel decisions. Overall, Maryland was judged as the least attractive destination in the region, a distinction mournfully shared with New Jersey.

The Queen Anne’s County’s Tourism Coordinator indicated that her primary goal is to raise the visibility of the county when she participates in industry conferences and workshops. The need to bolster awareness is consistent with the findings of the statewide image study that found that Maryland did not match up well with its neighbors. It is also consistent with the views of local

⁴⁶ Longwoods International, “2014 Maryland Image Research,” July 2014, available at <http://industry.visitmaryland.org/research/visitor-studies/>.

officials in the communities along US 301 who expect (perhaps counterintuitively) that an improved highway and access will have *little or no impact* on the tourism industry in their localities.

Logically, the image assessment found the attractions that prospective visitors were most likely to know tended to be in Baltimore (e.g., the Inner Harbor, National Aquarium, Oriole Park, and Fort McHenry). The most well-known attraction in Maryland, however, was the Chesapeake Bay. Moreover, the activities with the highest levels of interest were bay/ocean/harborside dining and local seafood restaurants.⁴⁷

These factors suggest that an improved US 301 might be an opportunity to attract more visitors to the county. Access from the north will be improved. Pennsylvania visitors who generate almost as many trips to the county as Marylanders do will often find it easier to reach the county. Other visitors — from Delaware, New Jersey, and New York, for example — will also enjoy easier access once the bottlenecks on US 301 are reduced or eliminated.

Since visitors to the county are most interested in nature activities and prospective visitors to Maryland are most interested in the Bay, the county enjoys significant tourism growth prospects. A list of county tourism attractions leads off with “the water” (see Appendix for complete list). Local seafood is an area hallmark and is often served in restaurants with waterfront views.

The benefits from increasing interest in the county as a travel destination can be significant. A summary of tourism impacts in Queen Anne’s County provides estimates of the economic benefits of tourism in 2016. Exhibit 34 lists some of those impacts and indicates what an increase of 1 percent or 2 percent would mean for the county. If 40 percent or more of county visitors arrive from the north (Pennsylvania alone accounts for 35 percent), then an increase in visitors from these locations might add another percentage point or two to total visitation. If the county markets itself aggressively, the growth in visitation stands to be substantially greater.

Exhibit 34. Tourism Impacts and Potential Increases

Type of impact	2016 total	1 percent increase	2 percent increase
Tourism spending	\$141 million	+\$1.4 million	+\$2.8 million
Total tourism employment	1,908	+19	+38
Total labor income	\$76.6 million	+\$766,000	+\$1.5 million
State and local taxes	\$1.81 million	+\$18,000	+\$36,000

Source: Summary of Tourism Impact Queen Anne’s County, Queen Anne’s County Tourism Coordinator

⁴⁷ Ibid.

- Pointing the Way to County Tourism Destinations

One way to encourage an increase in countywide tourism is to increase signage on US 301 that identifies attractions to travelers. The State of Maryland has implemented the Tourist Area and Corridor Signing Program (TAC). The TAC program is designed to help local tourism agencies, tourism businesses and organizations, and county governments highlight local recreational and cultural attractions by providing signage on expressways and major highways that guide travelers to the destinations. The program is targeted at visitors from outside the local area. Applications for signage are submitted to the State Highway Administration, which works with the Maryland Department of Commerce on this program.⁴⁸ It should be apparent that every effort should be made by Queen Anne’s County officials to augment and improve signage in order to provide additional support to the typically small businesses (e.g. restaurants, boat rentals) that comprise the local hospitality industry.

While such signage could facilitate recognition of county attractions, it was noted at a recent meeting of the County’s Economic Development Commission that this program is underfunded by the state. One consequence of this lack of resources is that there is a long waiting list for these signs.⁴⁹

Complementary Infrastructure Investments

- To a Large Extent, Queen Anne’s County and its Towns will Determine the Impacts Generated by a Better 301

With respect to interviews conducted by Sage regarding future infrastructure needs in the context of an improved US 301, virtually all comments in this regard focused on two topics: 1) at-grade crossings of US 301 and 2) extensions to water and sewer systems. As one official noted, the concern with at-grade crossings of US 301 and the safety risks that they pose has been part of public discussion for decades. Increased traffic resulting from reductions of bottlenecks in Delaware will presumably only exacerbate these concerns.

While noting their expense, most indicated that overpasses were a preferred alternative to U-turns. The urgency of the concern for eliminating on-grade crossings increases as a function of how often community residents need to cross US 301 as part of their daily routines (in Centreville for instance). For communities that are several miles from the highway, these concerns are predictably less pressing.

For Centreville and Millington, development in areas adjacent to the community forms part of current planning. In both cases, development would almost certainly be helped by the

⁴⁸ State Highway Administration, “Tourist Area and Corridor Signing Program (TAC)”.
<http://www.roads.maryland.gov/index.aspx?PageId=4>.

⁴⁹ Op. cit., Queen Anne’s County Economic Development Commission

improvements to US 301 and would require extensions of public water and sewer systems into areas that would likely be annexed into these communities as development progressed.

In the case of Centreville, the extension of water and sewer systems was made more urgent because the land most suitable to development does not pass percolation tests. Thus, water and sewer systems represent the only option to make development possible.

In finding that only relatively modest investments were identified as a consequence of additional traffic on US 301, it is worth pointing out that all officials interviewed served communities east of the US 301/US 50 split. As an official from Centreville noted, that community is not affected by summer traffic. He also observed that views of officials from Kent Island might be significantly different as small increases in US 301 traffic might become a tipping point for congestion that area already experiences.

Infrastructure projects are typically major, multi-million dollar efforts that can generate significant economic impacts for local economies. To provide a context for the impacts that investment in either new highway improvements or extended water and sewer systems might generate, Exhibit 35 presents the impacts that a \$10 million investment in highway improvements and in water and sewer improvements would generate in the county. Sage provides these estimated impacts as a general guide to how the construction activities associated with improving on-grade crossings of US 301 or with extending water and sewer systems into areas adjacent to communities in the US 301 corridor would create economic benefits to the county.

Exhibit 35. Economic Impacts of Investments in Highway and Water and Sewer System Improvements

Type of Impact (\$ Values in Millions)	Highway Improvements	Water & Sewer Improvements
Direct jobs	74	88
Secondary jobs	35	44
Total jobs	109	132
Direct income	\$3.6	\$1.2
Secondary income	\$1.4	\$1.9
Total income	\$5.0	\$3.1
Direct business sales	\$10.0	\$10.0
Secondary business sales	\$4.1	\$5.3
Total business sales	\$14.1	\$15.3

Source: IMPLAN, Sage

Conclusion & Bottom Lines

Many of whom Sage interviewed predicted rather modest impacts in Queen Anne's County stemming from improvements rendered to US 301 in Delaware. However, if the opportunities highlighted in this report serve as an inducement to act, the impacts could be quite large.

Due to a combination of demographics (accelerating household formation), a dearth of single-family construction in recent years, the growing tendency toward telecommuting, and the general impacts of economic growth, there has already been growing demand for new homes on the Upper Eastern Shore, especially those proximate to employment centers. Improvements rendered to US 301 render rapidly growing Middletown, DE more accessible to Queen Anne's County residents, opening up the potential for a significant acceleration in residential construction.

An expanded population would increase the allure of the area to businesses that either seek to directly serve growing demand for goods and services and/or to leverage a growing workforce. Our research indicates that there is an abundance of developable commercial/industrial land in Queen Anne's County, and that improvements to US 301 could render this land highly appealing for development. In particular, we expect that distributors will find Queen Anne's County to be substantially more appealing given improved access to Philadelphia/Wilmington.

However, absent requisite infrastructure investment to deal with issues at intersections and a general lack of water/sewer capacity, this potential for economic development and commercial tax base expansion will hardly be realized. We believe that this represents a reason for many county stakeholders with whom we spoke to express skepticism regarding the future economic impacts associated with the improvement of US 301.

Even in the presence of appropriate infrastructure investment in water, sewer, schools, wastewater treatment, etc., Sage cannot guarantee that development will proceed. This is not akin to a circumstance in which a private developer pre-leases an office building. However, given broader trends and already expressed interest in Church Hill and other Queen Anne's County locations, we are confident that the rate of return on strategic infrastructure investment will be elevated in large measure because of improvements rendered to US 301.

In the final analysis, the people of Queen Anne's County will in large measure determine the economic impacts of the 301 improvement—through their zoning, annexation, capital investment, and marketing decisions. Absent bold action, the most likely impacts will relate to truckers and other visitors stopping for fuel and perhaps a bit of food.

- Observations and Recommended Steps to Leverage US 301-Related Opportunities

While there is lingering uncertainty regarding the magnitude and character of the economic impacts stemming from improvements to US 301 in Delaware, Queen Anne’s County is presented with an outsized opportunity to encourage economic development. This represents the fundamental finding of this report – that Queen Anne’s County’s economic development potential has been meaningfully bolstered by events related to US 301, especially along the US 301 corridor running through the heart of the county. The most desirable benefit for many stakeholders may be commercial development that expands employment opportunities and expands the local nonresidential tax base.

Exhibit 36. Map of Queen Anne’s County



✦ Assets & Advantages

The most salient assets that the county possesses to support commercial development include the following:

- An abundance of land that is zoned for commercial and industrial development. This land is located throughout Queen Anne’s County, but there is a significant volume along the US 301 corridor stretching from Queenstown to Millington.
- Economic development zones that create benefits for investors and business owners. These include the Opportunity Zone that encompasses the town of Church Hill and most of the Route 213 corridor and the Baltimore Foreign Trade Zone #74 that may ultimately be expanded to include the US 301 corridor in the county.
- Recent activity and existing plans that supply evidence of developer interest and ingredients for future commercial development. Church Hill has seen a number of new businesses moving into available space in the town. Centreville has clearly identified prospective business park capacity that could leverage an improved US 301.
- An alternative commercial route between Delaware and points north and the Baltimore-Washington region and points south. While US 301 is a slightly longer path than I-95, congestion on the I-95 route can readily cancel the distance advantage of that route. Moreover, tolls on I-95 are substantially heavier than those on US 301 and also help to increase the attractiveness of US 301 as an alternative commercial route. This potential was recognized in a 2015 freight traffic analysis of the Delmarva Peninsula, which identifies US 301 as the “Bay Freight Corridor” and notes that commercial traffic on this route is sensitive to general economic development.

✦ Recommended Tangible Steps if the County Seeks to Leverage US 301

- To take advantage of these opportunities, the County should take the following steps:
 1. Identify, list, and if possible rank high potential commercial land. This is important because it supplies a rational basis by which to determine which infrastructure projects should move forward first. As noted, economic development zones create advantages along the US 301 corridor and should not be ignored. These also overlap with commercially zoned land that the towns have already identified as those most desirable for development. Sites closer to the US 301 corridor and closer to Middletown should perhaps be viewed with the highest degrees of favorability.
 2. Steadily eliminate barriers to commercial development. The most obvious barrier is the absence of water and sewer services for land already designated for commercial

development. Other barriers appear to include roads and highway access for some advantageously situated commercially zoned land.

3. Clarify the benefits available to developers and businesses. The economic development zones that do or are likely to exist in Queen Anne's County provide substantial tax and other benefits to investors or business owners. Capital gains taxes are reduced or eliminated for investors in Opportunity Zones. In Foreign Trade Zones, goods that are re-exported are supplied duty-free treatment, while for items sold in the U.S., duty payments are deferred, which helps level the playing field for domestic companies that compete against foreign companies receiving customs advantages.
4. Encourage the development of speculative commercial space. Church Hill has successfully located businesses in existing commercial space. Centreville has identified potential businesses that might occupy a business park there and listed flex space as a likely format for that development. This strongly hints at untapped demand for commercial space in Queen Anne's County.
5. Take complete advantage of the State of Maryland's Tourist Area and Corridor Signing Program. Expanded traffic flow can be leveraged by clearly pointing out Queen Anne's County's attractions, including water-based recreational activities, historic sites, etc.

The types of development that might arise from these efforts span a broad range. Businesses serving local markets are likely candidates. These might include relatively small businesses similar to those that have recently opened. Given the buying power that currently exists in the County that is not served by local businesses, larger businesses may also be candidates including furniture & home furnishings stores, building material & supplies dealers, and general merchandise stores, as noted above. There are obvious "big box" retailers that fall under these categories and that might be prospects for the incorporated towns in the county. The County and Town of Centreville have also identified distribution and logistics as representing potential new business opportunities, perhaps on a large scale.

The upshot of these steps is likely to be an enhanced commercial base for the county. This would translate into new tax revenue for the County from improvements made to commercial land and the income taxes from county residents who fill the new jobs this development would create.

To the extent that these new jobs attract new residents, another set of economic benefits would arise. New residents would create demands for housing. They would also generate more demands for goods and services from the local economy thereby supporting existing and perhaps new future local businesses. The opportunities are plentiful, but so too are the steps needed to actualize economic development potential.

Appendix

Queen Anne's County offers an array of attractions. The following lists are derived from the County's website.

Tourist Destinations

- The water: Cabin Creek, Kent Narrows and Marshy Creek//Paddlepalooza Event
- Kent Narrows
- Tuckahoe State Park
- Ferry Point Park
- Terrapin Nature Park in Stevensville
- Historic Stevensville/Stevensville Arts & Entertainment District
- Chesapeake Bay Beach Club, The Inn, Stevensville, MD-Southern Living Collection Hotel
- Historic Kent Manor Inn, Stevensville, MD-Bed & Breakfast
- Dock Bars and Live Music
- Cascia Winery
- Church Hill Theatre

Activities/Events

- Chesapeake Bay Environmental Center (CBEC) guided kayak tours
- DrinkMaryland in Downtown Centreville
- 10K Across the Bay
- Farmers' Markets in Centreville and Kent Island
- 4th of July Celebration
- Golf: Queenstown Harbor or Blue Heron Golf Course
- Shopping: Queenstown Premium Outlets

Family Trips

- Get Outdoors: Visit Chesapeake Heritage & Visitor Center, Cross Island Trail, Terrapin Nature Area, Chesapeake Bay Environmental Center, Matapeake State Park
- Family-Friendly Festivals: Events at Godfrey's Farm, Bay Music Festival, Queen Anne's County Fair
- Historic Site Tour of Queen Anne's County
- Paul Reed Smith Factory Tour
- Museum of Eastern Shore Life

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- Beauchamp, Jim A., Member, Town Council, Town of Centreville
- Bowden, Debbie, Clerk-Treasurer, Town of Barclay and Economic Development Director, Caroline County
- Jakubiak, Christopher, Planning consultant to Centreville and Church Hill
- Knotts, Bill, Resident, Town of Templeville
- Manning, Elizabeth Jo, Town Manager, Town of Sudlersville
- McCluskey, Tim, President, Town Council, Town of Centreville
- Moore, Amy, Clerk-Treasurer, Town of Queenstown
- Morales, Claude J., Mayor, Town of Millington

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