



Virginia Cooperative Extension

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Situation Analysis Report



Gloucester County

2018

UNIT Extension Staff

Krista Gustafson, 4-H Youth Extension Agent
Robert Longest, Agriculture and Natural Resources Extension Agent
Glenn Sturm, Family and Consumer Sciences Extension Agent
Elizabeth Hayes, Family Nutrition Program Assistant
Jackie Jefferis, 4-H Program Assistant
Heather Johnson, Unit Support Staff

UNIT Extension Leadership Council

Katina Kenner, Bill Blair, Marion Randall, Edwin Boscana, Brian Ingraham

Introduction

In the fall of 2018 The Gloucester County Extension Leadership Council with Virginia Cooperative Extension Staff conducted a comprehensive Situation Analysis to assess local needs and identify areas of greatest concern and need for Extension educational programming and/or resources. A survey instrument was developed in Qualtrics and distributed to citizens through Gloucester's Department of Community Engagement by use of the County website and social media presence. The survey was additionally made available through Gloucester's Extension social media accounts on Facebook and Instagram, and was sent by targeted email to groups which included members of the Gloucester Resource Council as well as educators in the public school system and members of the agricultural community. The community needs survey was completed by 128 respondents.

Survey results were distributed by email to all members of the Extension Leadership Council as well as local staff in January 2019. Priority issues were assigned in February 2019 based on survey data as well as local needs knowledge gained through participation on and collaboration community boards and organizations which include Gloucester County Public Schools, the policy board of Bridges Head Start, Bay Aging Policy Council, the Gloucester Resource Council, Gloucester's Community Services Leadership Team, and the Gloucester Community Programmers Committee.

Unit Profile

Overview

Gloucester County is located on the lower east end of the middle peninsula of the Commonwealth of Virginia and is comprised of 218 square miles of land area and another 70 square miles of waterway. The County is bordered on the south by the York River and the lower Chesapeake Bay on the east.

Gloucester is perhaps best described as a gateway community to the greater Hampton Roads metropolitan area to which it is connected to by the Coleman Bridge which spans the York River. Gloucester County is larger in both population and area than its Middle Peninsula neighbors, and considerably more urban. It boasts small town ambience with modern conveniences which includes an expanding medical facility (Riverside Walter Reed Hospital), a community college (Rappahannock, Glens Campus), and the Virginia Institute of Marine Science campus of the College of William and Mary. The route 17 corridor has seen significant commercial development over the years and is a shopping draw for the Middle Peninsula and the lower Northern Neck.

Despite development Gloucester County retains much of its rural character in distance from Rt. 17 and along waterways. Famous for its daffodils, Gloucester attracts numerous visitors who make spring pilgrimage to the Daffodil Festival or who come to taken in Powhatan history, enjoy water recreation on the bay or paddle its many scenic tributaries.

Demographics

The total population reported by the 2010 Census was 36,858—a 5.97% increase from the 2000 Census population total of 34,780. According to the U.S. Census Bureau's 2013-2017 American Community Survey (ACS), the population of Gloucester County in 2017 was 37,292 suggesting that population has been trending at a more modest increase. In 2010 the population density of Gloucester County was 169.2 individuals and 72.8 housing units per square mile. Using data from the 2017 ACS survey, those numbers increase to 172 and 75 respectively. Gloucester County is the most densely populated county of the Middle Peninsula (1.6x Mathews and 2xMiddlesex according to 2010 Census report).

According to the U.S. Census Bureau, Population Estimates Program (PEP) 2017 update, the most prevalent race is White (alone) 85.1%; Black or African American 9 (alone), 8.2%; American Indian and Alaskan Native (alone) 0.2%; Asian (alone), 0.5%; two or more races, 2.6%. 3.3% are Hispanic. Table 1 shows 2000 and 2010 Census data for Gloucester County on race, and is useful in illustrating demographic trends regarding race. The largest shift is the increase in in persons reporting two or more races and of those of Hispanic or Latino origin. Fall enrollment data collected by the Virginia Department of Education also reflects a significant increase in these populations (table 2).

Table 1. Census Data Race and Ethnicity Gloucester County

	2000 Census		2010 Census		Change
Total Population	34,780	100%	36,858	100%	5.97%
Population by Race and Ethnicity					
American Indian and Alaskan Native	146	0.42%	139	0.38%	-4.79%
Asian	240	0.69%	286	0.78%	19.17%
Black or African American	3,585	10.3%	3,197	8.67%	-10.82%
Hispanic of Any Race	560	1.61%	935	2.54%	66.96%
Native Hawaiian and Pacific Islander	18	0.05%	15	0.04%	-16.67%
Some other Race	140	0.40%	208	0.56%	48.57%
Two or More Races	503	1.45%	864	2.34%	71.77%
White	30,148	86.68%	32,149	87.22%	6.64%

Table 2. Virginia Department of Education Annual Fall Membership Data for Gloucester County

	2008-2009 School year		2018-2019 School year	
Total Student Population	6033	100%	5408	100%
Population by Race and Ethnicity				
American Indian and Alaskan Native	21	0.3%	13	0.2%
Asian	56	0.9%	30	0.6%
Black or African American	617	10.2%	356	6.6%
Hispanic of Any Race	132	2.2%	303	5.6%
Native Hawaiian and Pacific Islander	1	0.02%	7	0.1%
Some other Race	90	1.5%	None reported	--
Two or More Races	Not reported	--	353	6.5%
White	5116	84.8%	4346	80.4%

The number of English Learners has also increased over the last decade from 20 (2008-2009 school year to 75 (2018-2019), but still represents a small percentage of the total student population (currently 1.4%). According to the US census Bureau's, American Community Survey, only 0.04% of the population speak English less than well.

Table 3. Population by Age

	2017 Gloucester	Percent	Description	Total/Percent
Total population	37,035	100%		
Population by Age				
Under 5 years	1,954	5.3%	Infants and pre-school children	1,954/ 5.3%
5 to 9 years	1,782	4.8%	School-aged youth	6,225/ 16.8%
10 to 14 years	2,337	6.3%		
15 to 19 years	2,106	5.7%		
20 to 24 years	2,057	5.6%	Younger adults-college students and young workers/early-mid career	10,620/ 28.7%
25 to 34 years	4,327	11.7%		
35 to 44 years	4,236	11.4%		
45 to 54 years	5,776	15.6%	Older adults- late career adults	11,678/ 31.5%
55 to 59 years	3,221	8.7%		
60 to 64 years	2,681	7.2%		
65 to 74 years	3,917	10.6%	Seniors	6,558/ 17.8%
75 to 84 years	1,881	5.1%		
85 years and over	760	2.1%		

According to the American Community Survey (2017) the median age in Gloucester County is 44.6 years. This is 16.8% higher than the statewide median age of 38.2 years but still lower than Middle Peninsula neighbors: Mathews (52.6), Middlesex (53.5). Median age for Gloucester is trending up (41 in 2007, 42 in 2010, and 44.6 in 2017).

As Gloucester has aged, its school age population has declined. Since the 2010 Census, total school enrollment is down 10.4%, and declining elementary school enrollment resulted in the closure of T.C. Walker Elementary School in 2012. School-age youth make up approximately 17% of the population. The largest percentage of population are older adults aged 45 to 64 years who account for 31.5% of total population. The 20-44 year old age group makes up the second largest population and comprises 28.7% of the total population. Seniors represent 17.8 % of the population.

With an aging population comes an increasing need for healthcare, long-term care, and services to support older citizens as they age. Gloucester's aging population will have future economic and social impacts for the county in meeting the health and housing needs of the elderly as well as providing adequate transportation for services. The age shift may even drive development away from providing products and services which attract young families in order to meet the needs of the emerging demographic. Studies have shown that increasing median age at a certain level negatively affects economic development (Thiede, 2017).

Economy and Households

Gloucester County reports a level of unemployment at 2.4% (December 2018) that is just below that of the Commonwealth for the same time period according to the Virginia Employment Commission (VEC). The rate of unemployment in Gloucester has been trending downward since peaking at 6.8% in 2010.

The top ten largest employers in Gloucester County in order are Gloucester County Public Schools, Riverside Regional Medical Center, Walmart, Gloucester County, the Virginia Institute of Marine Science, Rappahannock Community College, Food Lion, York Convalescent Center, Lowes, and Home Depot (Virginia Employment Commission, 3rd quarter 2018). According to VEC, there is a substantial net in-commuter deficit. In 2014, out commuters numbered 11,902, while in-commuters numbered 5,122 and 3,616 individuals lived and worked in the county. The Virginia Employment Commission's long term forecast for industries and occupations projects Gloucester 2024 occupational growth almost exclusively for health and veterinary fields (with the exception of non-restaurant food servers and law teachers).

According to the 2013-2017 American Community Survey, there are an estimated 14,746 households in Gloucester County, and the median household income is \$63,881, up 7.7% from 2010, but still 35.8% lower than that of nearby York County (\$86,781).

The ACS reports that 10.1% of families with children under age 18 had income in the past 12 months which is below the poverty level, slightly better than levels reported for the Commonwealth for the same time period (12.3%). An estimated 7.4% of seniors aged 65 and older live below the poverty level, and this is equivalent to that of the state. Of the 14,746 households, the ACS estimates that 7.2% (1,055 households) received food stamps/SNAP benefits in the previous twelve months. Overall, 9.1% of households in Virginia received food stamps/SNAP benefits during the same time period. According to the Virginia Department of Health, approximately 8% of Gloucester residents are food insecure, and 3% have limited access to healthy foods.

Health

According to the Virginia Department of Health's 2018 Community Health Rankings 33% of adults in Gloucester report BMI over 30 which supports a diagnosis of obesity. The state average is 28%. Obesity impairs health to a great extent especially by raising the risk of other chronic illnesses such as heart disease and diabetes. The Virginia Department of Health reports that 11% of Gloucester's adult population are living with diabetes, slightly higher than the state average.

The opioid epidemic which has become a national emergency also poses a health threat to Gloucester. According to the Center for Disease control and Prevention (CDC) the prescribing rate for opioids had fallen in 2017 to the lowest it had been in more than 10 years

at 58.7 prescriptions per 100 persons. However, in 2017, prescribing rates continued to remain very high in certain areas across the country. In 16% of U.S. counties, enough opioid prescriptions were dispensed for every person to have one. Gloucester is one of those counties. According to the CDC, the opioid prescribing rate for Gloucester County was 107.5 for 2017.

The Virginia Department of Health further reports that Gloucester needs more primary care physicians and dentists. The population per physician ratios are higher than the state average, 1690:1 vs. 1030:1. For dentists the ratio is nearly double 2,860:1 for the county and 1,280:1, state average. Approximately 10% of Gloucester's population is uninsured, down from 19% in 2010. VDH estimates that 8% of Gloucester County residents are food insecure.

Agriculture

According to the 2012 Census of Agriculture, farmland in Gloucester totaled 20,300 acres. This is an 11.6% decrease from farmland acreage reported in the 2007 Census of Agriculture (22,957 acres). Harvested cropland amounted to 13,215 acres in 2012 and 15,275 acres in 2007 (a 13.5% decrease). There were 136 farms in Gloucester in 2012, down 14.5% from 2007 (159).

Fifty-three of 136 principal operators reported farming to be their primary occupation and 56 reported working 200 or more days off farm. Of the principal operators, 27 were female, just half the women principal operators of the 2007 Census. Six farms had principal operators of Hispanic or Latino origin, and there were no Black or African-American principal operators of farms in the county.

The market value of all agricultural products produced in Gloucester County totaled \$11.3 million in 2012, up 25% from nearly \$9 million in 2007. Primary crops are traditional corn, wheat, soybeans which account for 95% of total market sales. Other agricultural enterprises in Gloucester include small scale livestock production, floriculture, organic farming, and agritourism operations. There are far more small farming operations than large, and the 9 largest accounted for \$8.4 million in revenue in 2012.

Farmland in Gloucester is becoming increasingly difficult to obtain, and as the county continues expansion both in the housing market and commercial sector, we can expect future reductions in acreage devoted to traditional farming operations. Additionally, Gloucester can expect to see a greater number of farm vehicles and machinery on the road as producers farm multiple non-contiguous pieces of land in order to make ends meet. As in other sectors of the community, the farming population is also aging, and the younger generation is not always wanting to take control and assume the risks of bad crop years, and the implications of poorly wrought international trade deals. With Gloucester County's high land prices, often the choice is to sell to developers.

Community and Resident Perspectives

The Gloucester County office of Virginia Cooperative Extension obtained community and resident perspectives through participation on and collaboration with boards and committees that include the Gloucester Resource Council, the Middle Peninsula Northern Neck Community Services Board and the Community Services Leadership team of Gloucester County Government as well as through a community survey which was distributed through social media utilized by Extension and posted to the county website by the Department of Community Engagement. One hundred twenty-eight surveys were completed, although response to individual questions ranged from 106 to 124.

On the advice of the Gloucester Extension Leadership Council, the survey utilized in 2013 was redesigned with specific issues clustered under five broader themes: Housing, Youth, Families, Environment, and Agriculture.

Housing

The lack of affordable and multi-family housing has long been an issue for Gloucester County and this has been a concern of the Gloucester Resource Council since its inception. The median home value of approximately \$225,000 for owner occupied units makes home ownership out of reach for individuals and families with limited incomes or entry-level workforce jobs. Renters fair no better, with median gross rent at \$923 (ACS, 2017). Gloucester's homeless population is served by a day shelter, with evening shelter services provided by G.U.E.S.T. (Gloucester United Emergency Shelter Team), a coalition of local churches that work together to provide emergency shelter for the homeless during the winter months.

Approximately 57% of survey respondents indicated that the lack of affordable housing for senior citizens was a very important issue in Gloucester County, and 52% said that lack of affordable housing for families was also very important. An equal number of survey respondents said that need for additional facilities for homeless persons was very important. Gloucester currently operates a day-only shelter with local churches offering overnight accommodations during winter months.

Qualitative data indicates that Gloucester citizens find the housing issues to be of significant importance. Housing issues comprise the most frequent response when those taking the survey were asked to write about the most important issue facing Gloucester. One respondent wrote: "Affordable housing for families, senior citizens: If young families can't find affordable housing in Gloucester they will move. This drops the income to support the local business etc. Senior citizens are on limited income. Many can't pay for rent, food, and doctors on fixed incomes. I believe Gloucester has three or four housing complexes for senior citizens. We need more of both." Another said "Housing costs in Gloucester are crazy high.

Look at the average salary of a county employee, how in the world could they afford to buy a home in the county when the average cost is \$250,000? The new retirement communities start at the same level or even higher. Average month SS checks are about \$900. How can you pay rent and still live on that? We should all be concerned about this.”

Youth

According to our survey results, character development through positive youth activities and life skills development are among the most important issues facing youth in Gloucester. Seventy-nine percent reported character development as very important, and 74% said that life skills development was very important. Other issues in order of percentage reporting very important are: workplace readiness, mentoring programs, STEM (Science, Technology Engineering and Math), healthy living, leadership opportunities, and service learning and community engagement.

One survey respondent wrote of the need for engaging youth activities: “The schools take almost all of the responsibility for youth activities and they can't do everything. Also, the last place most kids want to go at the end of a day/week is back to school. We need interactive and engaging youth activities that cater to many different groups. A place for kids to go and be kids.” Another wrote “Our youth need assistance with basic life skills. The public school system is severely deficient in teaching these types of skills (cooking, cleaning, budgeting, resume building, etc.).”

Survey takers and other youth serving members of the community agree that preparing youth for their future is extremely important. One respondent wrote “Programs for positive development of our youth is the future. Training for the workplace is critical for youth who are not interested or unable to attend college. They need to have help to develop the strengths they have.”

Another concern often raised regarding youth in Gloucester County is the prevalence of JUUL/e-cigarette use. Nationwide, over 3.6 million youth were current e-cigarette users in 2018--1 in 5 high school students and 1 in 20 middle school students. Youth leaders training for 4-H camp counselor positions first brought JUULing to the attention of the Gloucester Extension Office in the summer of 2017 when they expressed concern that middle school students might bring them to camp.

Community members also expressed concern over the large number of youth who may be food insecure or who qualify for the free and reduced lunch program. Approximately 4 out of 10 students in Gloucester County schools qualify for free and reduced lunch, and many participate in the back-pack program which provides limited amounts of food for students to take home over the weekend. Gloucester does not currently meet federal guidelines for eligibility for SNAP nutrition education in the schools which require 50 % free and reduced lunch eligibility.

Families

The VCE-Gloucester County Community Survey indicates that residents feel that opioid/drug issues affecting youth and families is extremely important. Sixty-six percent of survey takers marked this category under families as very important (30% more than the next highest rated). According to the Virginia Department of Health, the number of Virginians who die from overdose continues to rise. 2016 marked the 4th year fatal drug overdoses rose past motor vehicle accidents and gun-related incidents as the leading cause of unnatural death in Virginia. In Gloucester the overdose rate for 2016 was 24.18 per 100,000-- there were 9 overdose deaths in 2016 (last year for full data collection).

Fifty-one percent of survey takers said that chronic disease and obesity issues were very important, although only 48/122 respondents indicated that the need for healthy living programs was very important. According to VDH 33% of Gloucester adults report BMIs over 30 which indicate obesity. Youth obesity is also a problem, and some schools have adopted early morning exercise opportunities to help youth improve fitness. Several survey takers indicated in the comment section that youth need to learn about making healthy food choices and that they needed more physical activity.

Financial literacy across the lifespan was classified as very important by half of all survey takers. One survey responder wrote “People need to know about money...saving, investing, preparing for major life events—retirement, how to pay for college...Folks need to know how to get out of debt and how to safely invest in the future. According to the *Retirement Income Deficit report by Retirement USA*, there’s a \$6.6 trillion gap between the pensions and retirement savings of U.S. households and what they should have to maintain their living standards in retirement – and the gap is growing.

Although not specifically queried in the survey, citizens often raised the lack of public transportation. Gloucester is served by Bay Transit; however, the pick-up wait time is often quite long, and much travel requires advanced planning. Residents suggest additional transportation options are needed to help the elderly with shopping and medical appointments, and to transport youth for after-school activities.

Environment

Gloucester residents expressed concern regarding their drinking water. Two thirds of those surveyed list water quality issues with regard drinking water as very important. Significant concerns exist as the well water clinic run by Extension in 2017 in Gloucester and Mathews showed some alarming statistics: 72% of well water samples taken were positive for total coliform, 8% of samples were positive for E. coli, and 6% of samples had lead present in first draw. More than 75% of households in the Middle Peninsula are on private well water systems. One citizen commented on the availability of water: “Gloucester County keeps building, but we have a finite water supply. When will water availability be factored into

planning process?” Another expressed concern regarding the aquifer and mentioned that development encroaching on wetlands has caused wells to run dry in some parts of the county with new wells needing to be drilled at extraordinary depths.

Erosion and coastal flooding issues received the next largest percentage of survey takers rating of very important (56.45%), followed by watershed water quality (52.64%), development (40.32%) and land use (31%). In the issues discussion portion of the survey, citizens expressed concern for developing environmental awareness and concern. One person wrote: “Garbage and litter (and the resulting pollution it causes) strewn along our roads and waterways. I am concerned about what appears to be a lack of education and apathy in the community concerning the impact this has on the land and waterways, the effect on wildlife, on waterman, on farmers, on organic farmers, bees, livestock, etc. Education and positive reinforcement of proper management techniques of our youth is very important, (let them see how this effects everyone) also there needs to be enforced penalties for dumping garbage and litter, and not properly covering your loads to reduce this problem.”

Agriculture

According to results of the community survey, sustainable agriculture is a concern of Gloucester County. One respondent wrote “the health of our planet in real trouble, and it is unlikely that our current government will do anything to counter the negative trends. Therefore it is urgent for farmers and scientists to research and develop ways to grow food even in dire circumstances. We need drought & flood resistant crops.”

Others remarked on the protection of farmland from development, and to preserve the rural character of the county: “I would like to see more areas where land is conserved for the future, not just to admire but to be able to use it for agribusinesses as appropriate. They don’t make land anymore, people.” One respondent identified agricultural waste run-off as a number one priority in Gloucester County. Other respondents expressed concern for animal and livestock welfare, community gardens, food safety and food preservation education.

Priority Issues

After review of the concerns above as expressed in the 2018 Community Needs Survey (128 respondents) and in discussion with stakeholders, members of the Gloucester County Extension Leadership Council identified the following as priority issues for Gloucester County: Opioid Crisis, Affordable Housing, Inadequate Public Transportation, Youth Development, Family Economics and Nutrition, Agriculture and Environment. These issues are to a certain extent intertwined, and there is some repetition in the discussion that follows.

Opioid Crisis:

The opioid crisis is a recognized problem in Gloucester County. The County has had town hall meetings to both educate citizens and discover solutions. The fight against substance abuse is spear-headed by the Gloucester County Sheriff's Department and the Middle Peninsula Northern Neck Community Services Board Prevention Division. As substance abuse is both a family and community problem that often involves or affects youth, and Virginia Cooperative Extension is an esteemed provider of science backed education for youth and families through the 4-H Youth Development and Family and Consumer Sciences programs, Extension is well-positioned to offer educational resources.

Under the broader umbrella of prevention education, Gloucester County 4-H has been providing programs that help youth develop confidence, resiliency, life skills and social capacity for decades through camping, club, and school enrichment delivery modes. In addition the 4-H agent partnered with agents in the Middle Peninsula and Northern Neck in 2018 to offer Health Rocks curriculum training for teachers through the Rappahannock Community College summer workforce training program. The FCS agent has additionally worked with residents with financial concerns and in bankruptcy to help strengthen families financially. Both programs have collaborated with MPNNCSB to support healthy living programs. There is a need for continued collaboration, with Extension providing additional educational resources for youth and families.

Affordable Housing:

There is a lack of affordable workforce and senior housing in Gloucester County. High median home prices make homeownership nearly impossible for much of the working population, and thereby eliminates one of the crucial ingredients in developing financial independence and wealth. Further, as senior citizens age, the availability of assisted living homes and affordable small homes is limited. Extension is well positioned to offer financial education aimed at helping citizens learn to develop savings and retirement plans, and navigate the path towards home ownership.

The FCS agent offers workshops for Gloucester County residents related to savings, retirement and investment and provides individual financial counseling for those in bankruptcy. FCS partners with 4-H to offer Reality Store, a financial literacy simulation that helps 8th graders in Gloucester learn the importance of budgeting as well as furthering education to attain a well-paying job that supports eventual homeownership. Future collaborations with the Extension family resource specialist at Virginia State University could yield homeownership workshops that would be beneficial to the community.

Insufficient Public Transportation:

Bay Transit provides the only form of public transportation apart from private ride services of taxi, Uber and Lyft. The private options are not affordable for many individuals and

families with low incomes. The wait time and advanced planning needed to secure transportation with Bay Transit makes that option a hardship for others, especially the elderly who require services for medical appointments.

While Virginia Cooperative Extension does not have a significant role to play in the transportation arena, Extension agents do make attempts to factor transportation needs when scheduling educational programs. 4-H After school programs are typically offered on days when there is an activity bus available for students to ride home. Access to a van to transport participants would be beneficial to the educational programming efforts of Virginia Cooperative Extension.

Youth Development:

The Gloucester County Extension Leadership Council identified youth development as a priority issue. Concerns related to youth received the highest percentage of survey respondents who reported an issue as “very important,” and Gloucester citizens place high value on the preparation of youth for their futures. Today’s youth face hurdles different from those of previous generations: the prevalence of cyber-bullying and the distractions and mental health effects of the constant barrage of social media messaging; peer pressure to engage in risky behaviors like JUULing which has hooked millions of American middle school students on nicotine; and the hopelessness of growing up food insecure or with family members who have opioid abuse problems.

Research shows that youth who participate in 4-H programs are four times more likely to give back to their communities, twice as likely to make healthier choices, and twice more likely to participate in STEM activities. With hands-on activities and the mentorship of caring adults, 4-H helps grow life skills like resilience, independence, responsibility, communication, and compassion. 4-H accomplishes this through experiences like raising animals for livestock and equine projects, volunteering in communities, and attending 4-H camp as a counselor or participant.

The 4-H program in Gloucester County is well supported by the community and engages over a thousand youth annually in STEM programs through schools, more than 600 in financial education, approximately 250 in healthy living, and another 75 in leadership training through club and camp participation. Both Extension Agents serve on community services committees and leadership teams and collaborate with other agencies when possible, but the hard truth is that it is never enough. 4-H needs more volunteers, more programming funds, and more opportunities to engage youth.

Family Economics and Nutrition:

With home prices high, and incomes low, helping families make wise use of finances is important. According to a recent study, 46% of Americans have less than \$10,000 saved for

retirement (*Employment Benefit Research Institute*) and In December 2013, 19% of all homes owed at least 25% more on their mortgage than the home was worth (*RealityTrac*).

As mentioned above in the housing discussion, Extension offers local research based programming through both the Family and Consumer Sciences and 4-H Youth development programs which include general financial literacy education, individual counselling on finance and bankruptcy, workshops on resume writing and interview techniques and financial simulations for youth. Additional efforts could include collaborative work to help place qualified non-college bound students in the local workplace or in apprenticeship positions and educational workshops to support entrepreneurship.

Obesity and chronic disease ranked as high priority issues according to the community survey. Poor food choices and lack of exercise lead to obesity, which is often the underlying cause of chronic diseases such as high blood pressure, diabetes, and heart disease. Self-reported adult obesity is 33% in Gloucester County, quite above the State's rates, and youth are increasingly obese as active play and sports have given way to electronic entertainment.

Extension in Gloucester County has utilized an interdisciplinary approach to addressing health and nutrition in Gloucester County. The office houses a Family Nutrition Program Assistant who provides nutrition education for adults and families with limited income and regularly sees women receiving benefits at the WIC Clinic of the Virginia Department of Health, seniors at the Gloucester Senior Center, and those who utilize the food pantry at Bread for Life. The Family and Consumer Sciences Extension Agent conducts numerous workshops in conjunction with the Gloucester County Public Library that address both nutrition and physical activity through programs such as My Plate, Cooking for Crowds, Walk Aweigh, and FitEx. The FCS agent has also offered general nutrition education to community groups and teaches the popular healthy cooking class at camp that reaches approximately 80 youth annually. Together with the 4-H Extension Agent, he challenges youth to learn about nutrition and to make healthy choices through the 4-H Food Challenge program at Page and Peasley Middle Schools and during summer day camp.

Physical activity is an integral part of the 4-H summer camping program, and Gloucester 4-H clubs also practice healthy eating as part of the 4-H for Health Challenge. Additionally, Master Gardeners work with participants in Community Services Board programs at Woodville Park to plant and harvest vegetables. Extension advocacy for development of community gardens, farmers markets, and farm to school endeavors may provide additional positive health impacts. Gloucester County needs the assistance of an Extension Agent for Agriculture and Natural Resources to help in this area. The position formerly housed in Middlesex remains vacant at the time of this report

Agriculture and Environment

Both agriculture and the environment were identified by the Extension Leadership Committee as priority issues for Gloucester County. Acreage in farmland has declined over the

years as younger generations find farming a more difficult way to make a living and as development in both commercial and residential areas begins to eat away at available land. Farms impart the rural character to Gloucester which distinguishes it from the Greater Hampton Roads area. Farming is also a way of life, steeped in tradition and community connection, and farmers contribute to the social and moral fabric of Gloucester County.

Agriculture also contributes significantly to the economy—over \$11 million from the sale of crops and livestock with additional tax revenue from real estate and personal property. At present, the nearest Extension Agent for Agriculture and Natural Resources is housed in Essex County, and he serves 6 counties. The agricultural community of Gloucester County is best served by filling the vacant position in Middlesex County. Producers need an Extension advocate, and a local presence to provide Extension education and conduct research and seed trials at a local level which will advance agricultural profitability and sustainability in Gloucester.

Located on the Chesapeake Bay with miles of coastline and numerous tributaries, water quality is a priority issue for Gloucester County. The County has an important fishing industry and the landscape includes significant natural resources which include beaches and wetlands as well as forests and farmland. Gloucester County has more than 12,000 acres of wetlands which play a critical role in the environment and make a valuable contribution to the economy. Gloucester County has taken several regulatory steps to protect and preserve wetland habitats, including wetland delineation for all commercial and subdivision projects to ensure that the wetlands, if present, are avoided in the development process (Berman et al 2014, citing Gloucester County Comprehensive plan of 2001).

While agricultural producers often bear the lion's share of blame for nitrogen loading and waterway pollution from run-off, homeowners must also share the blame for the current health of the bay. Extension education of homeowners on soil testing, and use of lawn-fertilizer is provided regularly by Master Gardeners and Extension staff by promoting the soil testing program and providing access to workshops and educational resources on living shorelines and gardening to promote wetland health. Additionally a conservation mindset is developed in youth through 4-H Meaningful Watershed Education Experiences. Additional Extension advocacy is needed for agricultural producers who have already shown that water quality is a high priority through their use of best management practices which include no-till farming and efficient fertilizer use through extensive soil testing provided by the labs at Virginia Tech.

Drinking water is also a priority issue. The FCS agent conducts well-water clinics in Gloucester and Mathews in conjunction with the Biological Systems Engineering Department at Virginia Tech biennially, with clinics held in neighboring Middlesex County in alternate years, providing access to the testing and educational resources annually for all. Significant concerns exist as the well water clinic run in 2017 in Gloucester and Mathews showed the prevalence of coliform bacteria in well water and nearly 75% of residents are using private wells. Clearly, there is a need for public education whether or not residents chose to participate in testing.

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