Situation Analysis Report



Montgomery County 2018

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Introduction

The Montgomery County Cooperative Extension staff, in collaboration with its Extension Leadership Council (ELC) conducted a comprehensive Situation Analysis during the calendar year 2018 using the policies and procedures of Virginia Cooperative Extension for conducting a comprehensive community needs assessment. Members of the ELC participated in regular or special meetings that were used to prepare and plan the process, gather and analyze the data, and assemble and edit the final report. Members of the ELC identified a list of key community leaders and groups, some of which they represented, to participate in the situation analysis process.

Community and resident perspectives were obtained through an online Qualtrics survey, posted on the Montgomery County Extension website. Individuals from a number of community groups, organizations, and local governments received an invitation to participate in the survey, and the survey was open to any interested citizen through our Extension website. Some of the agencies or groups receiving the survey included: Montgomery County Public School Administration, the Department of Social Services, the Virginia Department of Health, the agriculture community and industry, county and town government officials, New River Valley Community Services, teachers, 4-H club leaders and parents, volunteer groups (Master Gardeners, etc.), area churches, and other community leaders. ELC members helped to develop a Qualtrics survey instrument which asked citizens to prioritize Montgomery County community issues and needs. The ELC met to review survey results and to summarize data from quantitative and qualitative questions measuring respondent perceptions of the most important and relevant issues for Montgomery County citizens.

Unit Profile

Basic Demographics

Montgomery County is located in the southwestern part of Virginia. It is bounded by Craig, Roanoke, Floyd, Pulaski, and Giles counties. The county is home to over 98,000 residents in its 393 square miles and includes four major communities: Blacksburg, Christiansburg, Riner and Eastern Montgomery. Virginia Tech, one of the nation's leading educational and research universities, and the Virginia Tech Corporate Research Center, are located in Blacksburg. Some of the major employers for the county are Virginia Tech, Alliant Techsystems Inc (merchant wholesalers, durable goods), Corning Glass Works Inc (ceramic fibers), Moog Inc (electrical, appliance components), Lexington Rowe Furniture Inc, Wolverine (miscellaneous manufacturing), Shelor Chevrolet Corporation, Carilion, and Montgomery Regional Hospital.

Population, Age, Gender

Census data indicates that the estimated population for Montgomery County was 98,559 in 2017. This represents a population increase of 4.4% since 2010 (94,421). In 2014, there were approximately 243 people per square mile of the county. This is slightly higher than the state's population density of 196 people per square mile and is significantly higher than the population density for other planning district counties (Giles, Floyd, and Pulaski).

From 2010 to 2014, age distribution numbers for Montgomery County have increased in these age groups 25-44, 45-64, and over 65. The greatest increase occurred in the over 65 age group, a 13.7% increase in population in this mostly retirement age group.

In terms of 2017 gender data, the percentage of males (51.9%) and females (48.1%) is relatively balanced. The racial makeup of the county based on 2017 data is as follows: 86.5% White, 4.2% African American, 0.3% American Indian and Alaska Native, 6.5% Asian, 3.2% Hispanic or Latino, 2.4% Multiple Races, and .03% Native Hawaiian and other Pacific Islander. Overall, the Montgomery County population is well-educated, with 74% of the population having some college or higher. Approximately 34 % of the population has a Bachelor's degree or higher.

Data Sources - New River Valley Data Dashboard, http://nrvdata.org/; US Census Bureau; and Montgomery County Community Profile, http://virginialmi.com/report center/community profiles/5104000121.pdf

Housing & Economic status

In 2017 there were 40,185 (2017 Quickfacts) housing units in Montgomery County, an increase of 1,206 over the number in 2011 (38,979), representing a 3% percent increase in the number of housing units. Census Data indicates that the majority of Montgomery housing was built between 1960 and 1979 with the next period of increased building being from 1990 to the present. In terms of home assessments in Montgomery County, the median value in 2011 was \$196,300 and increased to \$202,900 in 2017, representing an approximate 3% cost increase. In comparison to surrounding NRV counties, the 2017 median home value for Floyd and Pulaski Counties were \$153,700 and \$139,600 respectively.

Comparisons of the Cost Burdens, paying more than 30% of household income toward housing costs, indicate that Montgomery County is higher than other NRV counties. Renters' cost burden is 48% and the housing cost burden, which is less than the percentage reported in the 2013 Situational Analysis, is 47.6%. The 2017 Fair Market Value Rent for Montgomery ranges from \$664 to \$1551, depending on apartment size. These numbers are \$100 to \$300 more than fair market rents in the other NRV counties.

According to the 2013-2017 census data, in 2017 dollars, Montgomery County has a per capita income of \$28,277 and median family income of \$53,424. In comparison, the remaining NRV

counties are less in both areas. The American Community Survey shows 23.8% as Montgomery County's 2013-2017 number of persons falling below poverty level. The percentages of the surrounding counties in the NRV and the Commonwealth range 11%- 13% persons below poverty.

The average resident of Montgomery County, VA is 10 years younger than the state average, due to the location of Virginia Tech. Almost half of the county is renting. About one-quarter (23.8%) of the residents fall below the poverty level. This data provides Virginia Cooperative Extension with the opportunity to continue to offer programing in the areas of Financial Education, Debt Management, and average cost of living. Virginia Cooperative Extension will continue to educate youth with "reality store" programming. The program is offered at the secondary level and is a great experiential learning activity where high school students are given a real life scenario with career and family and must make financial decisions about their monthly expenses similar to those adults make in their lives.

Unemployment

According to the Montgomery County Community Profile, the unemployment rate has decreased since 2013 from 5.7% to 3.8% in 2017. The 2017 rate matches the state rate of 3.8% but is lower than most of the other counties in the New River Valley. Since 2013, the number of Virginia residents living in poverty has been somewhat consistent, an average of 19,778 residents (22%). This is significantly higher than the state average of 916,902 residents (11%).

Virginia Cooperative Extension will continue to combat the unemployment rate with educational programing and skill building. We will continue to work with Career and Technical Education (CTE) and Community College programs to offer real life skills and training educating the next workforce of the New River Valley.

Crime

<u>Virginia's New River Valley Regional Data Book: June 2013</u> reports a decrease in crime in the NRV from 2004 (5,561 incidents per 100,000 population) to 2010 (4,822 incidents per 100,000 population). The numbers for Montgomery indicate a 13% decrease during that period. At 4822/100,000, Montgomery's crime rate is at a median rate for the New River Valley.

Health -

The leading causes of deaths in Montgomery County, the NRV and Virginia are heart diseases and malignant neoplasms followed by cerebrovascular diseases, unintentional injury and lower respiratory disease. In 2013, 158.1 deaths in Montgomery County were attributed to heart diseases, 143.6 to malignant neoplasms, 48.5 cerebrovascular diseases, 47.7 to unintentional injury and 32.3 to lower respiratory diseases (rates based on per 100,000 population). In

comparison to 2012, rates had decreased from 182.6 (heart diseases), decreased from 144.4 (malignant neoplasms), increased from 40.7 (cerebrovascular disease), increased from 22.5 (unintentional injury) and decreased from 42.4 (lower respiratory disease). In comparison, the 2013 Virginia rates for these causes of death were as follows: 157, 164, 40.7, 33.3, and 36.6 respectively.

In 2013, 21.3 Montgomery deaths (rates based on per 100,000 population) were attributed to diabetes mellitus. This is an increase over the 2012 rate of 15.3 and higher than the 18.5 Virginia rate. Statistical drug deaths (age adjusted rates per 100,000) for prescription opioids in Montgomery was 5.1 in 2013 and 6.4 in the state. A 2017 graph shows the Virginia rate has increased to 17.3. This data suggests a continued need for education related to preventive health care and healthy lifestyles.

Pregnancy rates in Montgomery County are increasing for teens under 19 years old. In 2015 there were 51 total pregnancies among teens between the ages of 10 and 19, 17 of those were to teens 15 years old and younger. In 2016 the numbers dropped to 39 pregnancies (ages 10 - 19) and of those 7 pregnancies (ages 10 - 15). The numbers jumped in 2017 for a total of 82 pregnancies (ages 10 - 19) and of those 17 pregnancies (ages 10 - 15).

The Center for Disease Control (CDC) estimates that each year roughly 1 in 6 Americans (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases. According to the New River District health digest, the reported numbers of foodborne illnesses fluctuate each year but in 2011 numbers indicated that there were a total of 19.1 (rate per 100,000 population) foodborne illnesses related to either salmonella or campylobacter in Montgomery County. Educational efforts should continue to reduce the number of incidences.

On November 21, 2016, the Virginia State Health Commissioner declared the opioid addiction crisis a public health emergency in Virginia. The mortality rate for prescription opioid overdose in Virginia in 2017 was 7.2 per 100,000 in rural counties and 5.3 per 100,000 in urban counties; mortality rate for fentanyl and/or heroin overdose was 4.3 per 100,000 in rural counties and 10.4 per 100,000 in urban counties.

Child Well-Being - based on Kids Count data: http://www.aecf.org/kidscount

In 2012, 18.1% of Montgomery County children (2,682 total children) under the age of 17 years old lived in poverty. This number decreased to 15.1% (2,281 total children) by 2017. This compares to rates of 15.5% (2012) and 14.0% (2017) for Virginia. In 2012, 38% of children received Supplemental Nutrition Assistance Program (SNAP) benefits. By 2017, that number increased to 41.4%.

From 2013 to 2017, 23.4% of children lived in single-parent households. This number is lower than the state rate of 31.1%. In the 2014 state fiscal year, the number of children entering foster care for at least one day in Montgomery County was 0.7 per 1000 population. This

increased to 2.1 per 1000 by state fiscal year 2018. Compared to the Virginia rates of 1.5 for both 2014 and 2018, the Montgomery rate has increased over that period of years.

The 2013 rate of children involved in child abuse and neglect, per 1000 children, was 7.0. This decreased to 5.3 in 2017. These numbers are higher than the Virginia rates of 3.0 and 2.6 respectively.

Child Well-Being data suggests a continued need for positive youth programming to address the diversity of needs for families in different households and family structures, provisions for children in low-income households who might not otherwise benefit from programming opportunities.

Education

The Montgomery County Public School District (MCPS) serves approximately 9,500 students in grades K-12. There are 21 schools in the county's four attendance areas (Christiansburg, Blacksburg, Riner, and Eastern Montgomery), including 11 elementary, four middle, four high, and two secondary alternative schools. Schools within the division vary in size and are located in both urban and rural settings. According to the Montgomery County Public Schools Six Year Comprehensive Plan (2014-2020), student enrollment from 2013-2014 through 2022-2023 is expected to increase from 9,511 to 9,662. At the time of the comprehensive plan (2013-2104), the student population by ethnicity was as follows: American Indian (.21%), African American (4.80%), Asian (3.68%), Hispanic (3.59%), White (84.59%), and Multi-Racial (3.07%).

The school division met federal accountability for the division's Standards of Learning (2012-2013 scores) in English and Mathematics, with 76.47% of all students reaching the benchmark requirement of 66%. This success rate includes subsets of students by ethnicity, economically disadvantaged, limited English proficiency, and students with disabilities. Standards of Learning Scores pass rates for all students have remained mostly consistent or shown gradual increases since 2012-2013 as indicated in the Virginia Department of Education table below. Student achievement goals in the Montgomery County Public Schools Comprehensive Plan include delivering culturally relevant, engaging, and responsive instruction using best practices and 21st Century learning tools and ensure equitable access to the curriculum, programs, and resources to assist students for increased academic performance. Extension educational programs can provide additional resources and supplemental hands-on instruction to help teachers in these goals for academic performance, especially in areas of STEM (Science, Technology, Engineering, and Math) competencies.

Subject	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
English: Reading	76	78	83	84	83	81
English: Writing	78	73	79	80	82	76
History, Social Sciences	84	85	85	86	86	82
Mathematics	70	75	82	83	83	81
Science	82	83	86	88	85	84

The Virginia Department of Education (VDOE) publishes annual state-level, division-level and school-level cohort reports that detail outcomes for students who entered the ninth-grade for the first time together and were scheduled to graduate four years later.

For the class of 2013, 362 received advanced diplomas, 282 standard diplomas, 20 special diplomas, and 20 GEDs for an on-time graduation rate of 89.56% and a cohort (767 students) completion rate of 92.24%. Thirty-nine (39) students were listed as dropouts.

The percentages of students who graduated from high school on time has steadily increased, since 2013. In 2018, 429 students received advanced diplomas, 274 standard diplomas and 29 special diplomas for an on-time graduation rate of 95.4% and a cohort (747 students) completion rate of 96.1%. Twenty-six (26) students were listed as dropouts, a dropout rate of 3.4%.

Although on-time graduation rates have increased and dropout rates have decreased, it is essential to continue efforts to educate high school students about the benefits of a high school education and to encourage teens to stay in school. Extension can positively influence this by providing programming on career exploration and highlighting career options through curriculum projects and activities.

From 2013 to 2017, the average percentage of the Montgomery County population 25+ years old who are high school graduates is 92%. The average percentage of the population 25+ years old who have earned a Bachelor's degree or higher is 46.3%. As a university community, Montgomery County boasts a highly educated citizenry. This has implications for volunteer development and involvement in Extension programming efforts. Adults having diverse educational backgrounds and expertise provide an excellent volunteer resource for helping to disseminate research-based information for public needs and education.

Agriculture Industry – based on 2012 Census of Agriculture & Montgomery County Planning & GIS Dept.

Total Acres in Montgomery County: "It Depends..."

(Source = MC Planning & GIS Dept.)

Source/Description	Acres	Square Miles
County (excluding the towns)	226,925 acres	354.60 sm
County (excluding right of ways, bodies of water)	220,296 acres	344.19 sm
County (including the towns):	248,610 acres	388.50 sm
2012 Census of Agriculture	254,008 acres (this is the figure I used to determine % totals)	

^{***} range = 33,712 acres

Total land area for Montgomery County consists of 254,008 acres with 107,260 acres (42.2%) of farmland according to the 2012 Census of Agriculture. Montgomery County Planning & GIS Department note 189,901.90 acres zoned as "Agriculture". The Virginia Dept of Forest reports that approximately 60% of the county is forested with about 7% located in the Jefferson National Forest. As a general look at our county statistics, the number of farms, 603, is down from 628 in 2007, which is a 4% loss in farms for the county. The average farm size is 178 acres, a 36 acres increase from 2007. This is significant because the average number of farms has declined over the past 5 years, while the average size of the farms remaining has increased, resulting in fewer farmers are cultivating more acres. Agriculture is a major industry in Montgomery County and mirrors the state in employment and economy. The county has an estimated market value for land and buildings of \$867,716 or approximately \$4,878 per acre of farmland OR approximately \$1,439 per farm. This is a total increase of market value for land and buildings of \$280,035.00 from the 2007 AG Census (\$587,681). The estimated over \$23 million (\$23,707,000) production of livestock, forestry, and horticultural products, within Montgomery County, is the agri-industry base.

Each county farm (603) has an average market value of agricultural products sold equal to \$39,316 annually. Livestock and related sales accounts for almost half of that average, with an estimated \$17,013,000 sold annually (72% of county AG sales). Distributed across the total number of farms (603) is an estimated total of \$28,213.93 per farm. This is an estimated total of Cow/Calf sales are the highest market value product for the county. Of the total number of farms listed for Montgomery County, approximately 313 of them are producing beef with approximately 11,521 head of beef cattle in the county, as well as, 22 additional dairy farms housing a total of 2,049 milk producing cows. There is a total of 21,405 acres of forage (land used for all hay and haylage, grass silage, and grenchop) to support livestock. The major crop for the county is corn, which an average of 1,123 acres is produced for grain, and 2,542 acres of corn is produced for silage or greenchop to support livestock production. Wheat and barley are the 2nd and 3rd most produced crops for the area.

The use of land in Montgomery County is regulated by ordinances and zoning tools set forth by the Montgomery County Code, the County Planning Director, the Planning & Zoning Administrator, as well as a the Planning Commission, appointed by the Board of Supervisors to advise them on planning, zoning and land uses. There are nineteen zoning districts established throughout the 254,008 acres of the county. Agriculture acreage (189,901.90) accounts for 75%, while conservation (4.5) comes in at well less than 1% mark, and most of the federal lands (21727.30) in the county are the Jefferson National Forest, for forestlands at approximately 8.5%. As described in the MC Comprehensive Plan, the county has forecasted future development of agriculture land to include small pockets of "rural" mixed in with a large mass of "resource stewardship", explained in the Comp Plan on p. 46.

The county is very clear on the <u>Land use definitions</u>, dividing agriculture into five major categories which define the minimum acreage necessary for certain types of production and in some cases the timeframe in which you can engage in production. The five categories include; general agricultural, horticultural, forest, open space, and animal use.

As you can determine from the data provided, the majority of the farmland area in Montgomery County is traditional production agriculture devoted to forage, livestock, and timber production which maintains sound land stewardship and protection of the environment. Profitability in agriculture depends on the ability of producers to maintain competitiveness and increase diversified markets. Increased sustainability, profitability and competition will require dissemination of new technologies, best management practices, and development of expanded markets.

Although, Montgomery County has predominantly a traditional type of agriculture production, the county has also seen a large increase of direct market farmers supplying the local food system through direct farm sales, farmers markets, agritourism, community gardens, and seasonal festivals. The "farm to table" movement has increased in the area, and Virginia Cooperative Extension has assisted in breaking down the barriers and restrictions with farm to school, farm to institution, and farm to restaurant sales. Virginia Cooperative Extension has been an active collaborator in the production of the New River Valley Local Food Guide describing opportunities across the region. We are also working with local producers to ensure food safety on all levels of production and distribution.

To support the growing "Local Food Movement" and direct sales, Montgomery County local government, including Virginia Cooperative Extension, has been working with the Commonwealth, the NRV Regional Commission, and local contractors to retrofit an old Elementary School into a 4000 square feet Commercial Incubator Kitchen and Cafe to be used to produce value added products for resale.

Prices Fork Commercial Kitchen Project

Useful County/Regional Reports/Assessments

- MC Farm to Community Report
- THRIVE: NRV Food Access Network Report
- <u>Food Desert Report</u>
 Building a Food Equity Assessment for the NRV (current assessment underway)
- Montgomery County Comprehensive Plan
- VA's NRV: Comprehensive Economic Development Strategy Annual Report
- NRVRC Data Dashboard
- NRV Health Assessment Report

State Agriculture Data - Virginia Department of Agriculture & Consumer Services

According to the Virginia Department of Agriculture and Consumer Services (VDACS), Agriculture is Virginia's largest industry by far, with nothing else coming a close second. The industry has an **economic impact of \$70 billion annually and provides more than 334,000 jobs in the Commonwealth**. The industries of agriculture and forestry together have a total economic impact of almost \$91 billion. The total employment impact was approximately 442,000 jobs. Every job in agriculture and forestry supports 1.7 jobs elsewhere in the Virginia economy.

According to a 2017 economic impact study, production agriculture employs nearly 54,000 farmers and workers in Virginia and generates approximately \$3.8 billion in total output. In addition, value-added industries, those that depend on farm commodities, employ more than 69,000 workers. When the employment and value-added impact of agriculture and forestry are considered together, they make up 9.5 percent of the state's total gross domestic product.

In addition to its tangible benefits such as farm cash receipts and jobs, agriculture provides many intangible benefits. These include recreation, tourism, wildlife habitat, biodiversity, flood mitigation, improved water quality and soil stabilization.

According to the 2016 National Agricultural Statistics Service (NASS), Virginia's agricultural production is one of the most diverse in the nation. Many Virginia commodities and products rank in the top 10 among all U.S. states. These include leaf tobacco, 3rd; apples, grapes and peanuts, 8th; fresh market tomatoes, 9th; and cotton, 15th. Livestock rankings based on number of head include turkeys, 6th in the nation and broilers, 10th.

Virginia AG in a Global Marketplace

In 2016, agriculture and forestry exports were valued at \$2.77 billion and, by volume, accounted for more than half of containerized exports moving through the Port of Virginia.

The top three export markets for Virginia in 2016 were China, Canada and Switzerland, all filling the same spots they have held since 2013. China imported more than \$691 million in agricultural purchases, while Canada totaled more than \$296 million and Switzerland imported more than \$191 million in 2016.

These countries and many others are purchasing a variety of Virginia agricultural commodities, wood products, seafood, and specialty food and beverage items. These items and others are promoted in the international marketplace by the Virginia Department of Agriculture and Consumer Services through its Virginia headquarters and a global network of trade representatives in Canada, Mexico and Latin America, Europe, the Middle East, India, China, Hong Kong and Southeast Asia.

Source: Global Trade Information Services Inc.

Virginia Farm Facts

- Virginia has 44,800 farms.
- The typical Virginia farmer is 59.5 years old. Thirty-six percent of farmers are 65 years of age or older.
- The average farm size is 181 acres.
- Farms cover 8.1 million acres, or 32 percent of Virginia's total land area of 25.3 million acres.
- Approximately 17 percent of Virginia's primary farm operators are female.
- The market value of Virginia agricultural products sold in 2016 was \$3.32 billion.
- Nearly 90 percent of Virginia farms are owned and operated by individuals or families.
- In the 1960s, one farmer supplied food for 25.8 people in the U.S. and abroad. Today, one farmer supplies food for 165 people in the U.S. and abroad.
- Less than 16 cents of every consumer dollar spent on food actually goes to the farmer

Source: 2012 USDA Census of Agriculture, 2016 survey data from NASS and the Economic Research Service (ERS)

Community and Resident Perspectives

Based on trends identified in the unit profile, and through discussions with ELC members, we developed a Qualtrics survey (see appendix) focused on issues relevant to Montgomery County. ELC members assisted in identifying individuals from different community groups, organizations, and government officials to rate the importance of these issues to Montgomery County citizens and to prioritize the most important issues for the county.

We posted the online Qualtrics survey to the Montgomery County Extension website and invited individuals representing a diverse cross-section of community groups, Extension clientele, and community leaders to participate and provide input into issues related to agriculture and natural resources, family and community sciences, and youth development. The survey was also open to the public as they visited the homepage of our Extension website which included a link for the Situation Analysis survey. One-hundred, sixty-seven (167) individuals completed the survey. The quantitative results are described in the following tables. **Table 1** reports the results of the question, "Please rate the importance of the following topics", one question for Agriculture and Natural Resources topics, one for Youth Development topics, and one for Family and Consumer Sciences topics. **Table 2** reports the results of the question, "Please drag and drop the following in the order of importance for Montgomery County", one question for Agriculture categories and one question for Youth Development programs/curriculum areas.

Table 1

Topics	% Respondents Ranking Issues as Very Important	Number Responding	Mean
Agriculture and Natural Resources Topics			
Water Quality	82.39%	131	4.65
Promote Best Practices for Safe Pesticide Handling & Application	75.32%	119	4.54
Preserve Agriculture Farmland & Greenspace	74.05%	117	4.49
Support Best Management Practices & Sustainable Agriculture	71.70%	114	4.47
Public Awareness of AG	65%	104	4.39
Ecosystem & Natural Habitat Protection	62.89%	100	4.41
Support Agriculture Production & Profitability	62.66%	99	4.41
Support Urban AG (homesteading, beekeeping, backyard chickens, etc)	59.49%	94	4.34
Farmland Preservation - Estate & Land Transfer	58.75%	94	4.36
Zoning - Land Use	57.59%	91	4.35
Increased Access to Broadband Services (Internet & Cell Phone)	54.09%	86	4.31
Energy Efficiency	45.57%	72	4.20
Wildlife & Pest Control	44.65%	71	4.16
Marketing for AG Products sold Direct to Customers (Direct Marketing)	44.30%	70	4.21
Wildlife Preservation	42.31%	66	4.15
Natural Resources Production & Profitability	39.87%	63	4.10
Alternative Energy Sources & Use	39.62%	63	4.11
Marketing for Commercial Producers (commodities)	22.15%	35	3.91
Other (List includes = Hemp, Community Gardens, Edible Landscapes, Urban AG, Connect w Counties, Water Quality)	45.83%	11	5.21

Total, Agriculture and Natural Resources		157	
Youth Development Topics			
Career Preparedness and Readiness	63.16%	96	4.45
Financial and Consumer Readiness	61.84%	94	4.42
At Risk Behavior	61.59%	93	4.40
Character Development	55.92%	85	4.35
Community Involvement	53.95%	82	4.38
Healthy Living, Nutrition and Exercise	53.59%	82	4.29
Availability of Before and After-School Extracurricular Activities	51.66%	78	4.30
Leadership Development	49.67%	75	4.28
School Curriculum Enrichment Activities	44.37%	67	4.19
Other, (List includes: vocational skills training; linking students to farms to address farm labor shortage; giving	55.56%	5	5.11
them a sense of purpose)			
Total, Youth Development		153	
Family & Consumer Sciences Topics			
Adolescence	64.24%	97	4.44
Quality Child Care	64.00%	96	4.46
Early Childhood Education	63.33%	95	4.42
Opioid and Drug Abuse	62.91%	95	4.36
Aging Issues	62.50%	95	4.42
Parenting	61.59%	93	4.47
Household Water Quality	59.21%	90	4.35
Nutrition	57.62%	87	4.34
Financial Management	57.24%	87	4.32
Total, Family & Consumer Sciences		152	

Table 2

Categories or Program/Curriculum Areas	Mean (Rank 1 = highest)	% Respondents Ranking Program or Curriculum Area 1st
Agriculture & Natural Resources Categories		
Local Food Systems	1.83	53.55%
Animal/Livestock Production	2.82	22.58%
Horticulture	2.97	11.61%
Forestry	3.65	7.74%
Alternative Agriculture	3.97	3.87%
Other	5.76	0.65%
Youth Development Programs/Curriculum Areas		
Communications Skills	3.39	20.41%
Healthy Living	4.08	19.73%
STEM	4.29	16.33%
Financial and Consumer Literacy	4.35	14.97%
Natural Resources and Environmental Education	4.39	10.88%
Leadership Opportunities	5.01	8.16%
Animal Sciences	6.26	6.12%
International Awareness	7.33	2.72%
Companion Animals	7.88	0.00%
Expressive Arts	8.12	0.68%

Nineteen Agriculture and Natural Resource (ANR) topics were listed in the survey. The survey respondents (~157) ranked environmental factors at the top of the list. The top three topics marked "Very Important" are Water Quality (82.39%), Promote Safe Pesticide Handling (75.32%), and Preserve Farmland & Greenspace (74.05%). From the six ANR categories, Local Food Systems ranked #1 at 53.55%. Livestock/Animal Production came in at second with 22.58%. Horticulture ranked third at 11.61%.

Of the nine youth development topics identified for the survey, the following six ranked the highest with the majority of respondents (over 50%) reporting that these topics are very important to the citizens of Montgomery County: career preparedness and readiness, financial and consumer readiness, at risk behaviors, character development, community involvement, and healthy living, nutrition, and exercise. Respondents also ranked 4-H programs/curriculum areas for those most needed for Montgomery County youth education. The top five, ranked #1 the most frequently, included communication skills, healthy living, STEM, financial and consumer literacy, and natural resources and environmental education. Most of these coincide with the most highly ranked youth development topics. Career preparedness and readiness goals includes soft skills development like communication skills and character development but also incorporates hard skills like STEM and natural resources education. Financial and consumer readiness and literacy was ranked high in each survey question as was healthy living.

Fifteen family issues were provided for responders to identify as the most important issues for Montgomery County. With less than two percent between each, nine were included as the top issues. The tenth ranked issue was seven percent below the ninth issue.

Our Extension staff and Extension Leadership Council wanted to know how the public typically receives, and how they prefer to receive, information about Extension programs. On our situation analysis survey we asked respondents how they most often received notification of Extension programs and which types of notification methods for Extension programs they were most likely to use. One hundred four (104) individuals answered these questions. In terms of how they most often received notification, 58 indicated email, 9 facebook or website, 5 newspapers, 19 infrequent or no notification, and 13 other methods. The types of notification they were most likely to use included 89 email and 15 miscellaneous methods (newspaper, newsletters, school folders, radio announcements, Facebook, social media, website, and quarterly catalog of offerings). Since the majority of individuals indicated a preference for email notification (86%). Our Extension staff will plan to determine methods to develop inclusive email lists and how to better notify Montgomery citizens about how to subscribe to these lists.

Priority Issues

Issues Status: All of these issues are within the scope of VCE to address.

Based on the unit profile and the community resident perspectives, the following top priority issues were identified for Montgomery County.

Issue 1: Public Awareness of Agriculture

The unit profile indicates that agriculture and agri-industry significantly impact the economy of Montgomery County with an estimated twenty-four million dollar market value. The County has a history steeped in traditional agriculture production with livestock & forage production

remaining the major commodity. Montgomery County also has seen a lot of expansion around development by housing the largest University in the Commonwealth of Virginia for nearly 150 years. The increase demand for industrial development around Virginia Tech, along with more commercial land use paired with the large need for residential and housing use, has decreased the amount of available farmland. Our region is gaining more full and part-time residents each year with the expansion of Virginia Tech, all while losing the connection to our agrarian society and the natural world. The respondents to the community survey indicate the public awareness of agriculture and connection to the natural world as top priorities (65%). The survey data shows, 57.59% of folks are concerned with suitable land-use, zoning ordinances, taxation, along with 74.05% concerned with a long-term vision of farmland preservation. The thematic of maintaining sustainable agriculture and the rural character of the county is of high value. Many respondents (62%) noted that agriculture as a profitable business supports local economic development, as well as, the preservation of green and open space (74.05%). A number of the comments also included "environmental stewardship and climate change" as a long-term concern.

Respondents equally determined the promotion and support of Local Food Systems as very important. In fact, "Local Food Systems" rated the top category priority (53.55%) for all of agriculture & natural resources. This data reflects the trends seen nationally and across the Commonwealth; the public desires a connection to where their food comes from. Who is producing their food, how and where are agricultural products produced? The production of local food and products supports 'Virginia Grown & Finest' programs. Unfortunately, there are no standard numbers that account for the local economic value of local foods and/or urban ag production. The National Agricultural Statistic Service only monitors agriculture products described as commodities. Research continues in this area to discover the best data sources needed to provide better metrics around the conversation.

Many residents, ag and non-ag alike, are concerned with the lack of efficient broadband services throughout the more rural reaches of the county, as well as across the entire southwest Virginia region. Nearly 80% (79.25%) of the survey respondents noted "Increase Access to Broadband Services" as Very to Somewhat Important.

The new resurgence of Cannabis sativa production for industrial hemp and/or wellness/ medicinal products has really gotten everyone's attention, not just in VA - but nationwide. The allowances made in the 2018 Federal Farm Bill allow for legal Hemp production. We are working with the Virginia Department of Agriculture and Consumer Services, along with VT and industry researchers to understand and expand regulation while promoting the best production, harvest, drying, and holding practices. Tied to the production is a critical understanding of the regulations, and the necessity of an emergent infrastructure to support a sustainable and profitable crop in Virginia.

Virginia Cooperative Extension-Montgomery County will continue to work with local officials and specialist promoting and expanding educational opportunities and resources that would encourage appropriate, diverse markets offering safe, locally produced farm products. This

demand is not only seen from the viewpoint of the consumer, but also from farmers looking to expand production and markets. Montgomery County is on the cusp of the rural and urban interface, and has a strong potential to become a food-hub (center) for our region expanding rural enterprises, marketability of the region, and tourism. Every job in agriculture supports other distribution, storage, and retail industries, which contributes to the overall community viability and economy of the county. Encouraging the public's connection to all types of agriculture also supports the overall public awareness of agriculture.

Montgomery County 4-H currently offers a few youth development programs in the area of public awareness of agriculture. Some of these include the 4th grade Junior Hokie Showcase program at Virginia Tech's Alphin-Stuart Arena that provides instruction on Virginia's agriculture and natural resources commodities, the 4-H embryology school enrichment program, the opportunity to join the Montgomery County 4-H Livestock Club and participate in several 4-H livestock projects and activities, and the Junior Master Gardener program. The Extension staff will continue to seek educational programming opportunities related to this issue. Examples might include Agriculture in the Classroom and Farm to School enrichment programs with the development of school gardens, greater recruitment for volunteers to develop clubs and programs around agriculture awareness through the use or development of community gardens, and programs (workshops and camps) that address both traditional and non-traditional forms of agriculture and provide youth with information on careers in the agriculture, food systems, and agritourism fields or industries.

Issue 2: Environment

Agriculture and sustainable, suitable development for Montgomery County is directly related to the environment. The county maintains a high acreage of forestland, most being privately owned with the potential for development. The key informant needs assessment data shows equal importance between agriculture and the environment suggesting that all development and production be implemented with best management practices and a land stewardship focus.

Water Quality rated 82.39% per 157 respondents, which is the highest of all the ag & natural resources topics. In addition to the ranking, Water Quality also comprised 10% of the comments section providing our unit more clarity around the diverse definition, including - agriculture production water, agriculture livestock exclusion, agribusiness (food, breweries, wineries), pipeline/development, stormwater runoff, residential water usage & quality, stream/river quality, and watersheds.

Proper management, handling, and application of pesticides is an ongoing priority for Extension programing (75.32% rank). Maintaining water quality is also a high concern of the respondents of the needs assessment. Virginia Cooperative Extension will continue to collaborate with the Virginia Department of Agriculture and Consumer Services (VDACS) regulatory programs and Virginia Tech's Pesticide Safety Programs offering certifications in the area of proper fertilizer applications (FACT), private pesticide applicator licenses, as well as

commercial pesticide applicator licenses. Virginia Cooperative Extension-Montgomery County offers local recertification workshops where applicators can gain educational credits to maintain current certification and licenses status.

Montgomery County, in collaboration with Virginia Household Water Quality Program and Virginia Master Well Owner Network offered Well Water Safety Clinics beginning in the winter of 2012. These clinics provide citizens with the opportunity to test and correct any well water issues, including bacterial issues. This model has proven to be effective, and we will continue to offer these types of clinics in the future.

Our unit also works closely with other support service providers across the county, including Skyline Soil and Water, as well as Natural Resource Conservation Services promoting conservation and better resource use programs. We've seen an increase of interest in our Master Gardener volunteer group around water quality, with an "Assessing Water Quality in Depot Park Stream" project. This community project is a partnership with the Town of Christiansburg Environmental Supervisor, and is working to identify and count the algae species in the creek to determine if the recent stream remediation has improved water quality and overall stream health.

Montgomery County also works very closely with the Virginia Produce Safety Team, Virginia Dept of Agriculture and Consumer Services (VDACS), Virginia Dept of Health (VDH), to support healthy farms producing safe produce and making the best use of natural resources, including water.

Montgomery County 4-H currently offers several youth development programs in the area of natural resources and environmental conservation. Some of these include the following: (1) 4th grade Junior Hokie Showcase program at Virginia Tech's Alphin-Stuart Arena that provides instruction on Virginia's natural resources commodities; (2) 6th grade stream quality assessment field days focused on the physical, biological, and chemical indicators of stream health; (3) nutrient pollution station for 6th grade stormwater pollution field days to Izaak Walton League Outdoor Education Park; and (4) Special Interest (SPIN) clubs and Wild About Nature after-school programs focused on natural resources conservation and preservation. The Extension staff will continue to seek educational programming opportunities related to this issue. Examples might include, with collaboration from Master Naturalist volunteers and local environmental agencies, the development of more environmentally focused 4-H clubs (junior naturalists, etc.) and more environmental education school enrichment, after-school, and special interest programs.

Issue 3: Career Readiness and Preparedness

Unit profile data suggests that the number of youth completing their high school education and pursuing post-high school education is increasing (96% cohort completion rate in 2018 and an average of 46% from 2013 to 2017 earning a Bachelor's degree or higher. Pass rates for the Virginia Standards of Learning (SOLs) for Reading, Writing, History/Social Sciences,

Mathematics, and Science steadily increased from 2012-13 through 2016-17, with a slight decrease in 2017-18 scores (81, 76, 82, 81, 84 % respectively). Through in-school enrichment and before or after-school programs, Montgomery County 4-H can provide students with supplemental hands-on activities to illustrate concepts related to the Virginia SOLs and hopefully reinforce student learning in several SOL subject areas and topics.

Respondents to the needs assessment survey indicated that career preparedness and readiness among youth should be a priority for Extension programming efforts (ranked very important in the youth development topics by 63% of respondents). The communication skills curriculum area, an area strongly related to career readiness, ranked first for educational needs in Montgomery County. Many of the survey comments describing the priority issues for Montgomery County also indicated a need for programs that better prepare youth for joining the workforce by helping them develop better critical thinking and problem-solving skills. The Montgomery County 4-H program targets many career readiness skills in existing programs. Some examples include the following: (1) the process of selecting and preparing Teen Counselors and Counselors-in-Training for Junior 4-H Camp - applications and resumes, interviews, and job and leadership training; (2) developing career awareness and hard skills development through 4-H club and project work; and (3) developing leadership skills and connecting youth to their community through civic and service programs. Programming efforts should continue to emphasize these life skills and should seek new opportunities to provide youth with more meaningful and substantive experiences that comprehensively target career awareness and soft and hard career skills. Collaboration efforts with school administration. Career and Technical Education and other Directors of Instruction, should provide additional information on how Extension can assist Montgomery County Public Schools with their career readiness goals (career fairs, instructional programs, etc.).

Issue 4: Family Well-Being

While the median family income of \$53,424, which is the largest in the NRV, Montgomery has the greatest number of families and children living in poverty. The unit profile also indicates that the cost of burden for housing and rental is higher than the other NRV counties. Add the challenge that Virginians are among the top ten of highest debt level.

At the national level, the 2018 Consumer Financial Literacy Survey prepared by Harris Poll found that 79% of adults would benefit from advice and answers to everyday financial questions and 73% are currently worried about their personal finances. This same survey revealed that 24% reported finding it difficult to reduce debt due to unexpected financial emergencies. 8% of all adults have debts in collection with Millennials (18-34) having a greater percentage in collection (13%).

The 2018 Junior Achievement/The Allstate Foundation reported that 72% of teens look to their parents for money management information. The report also shows that 50% of youth have a goal of creating a savings plan while 43% are concerned that they do not have the skills to

manage their money. Meanwhile, America Saves (2015) state that while youth are aware that it is important to save, they don't know how to save.

From our needs assessment survey, financial and consumer readiness was ranked second in importance among youth development topics with 62% of respondents indicating that it is very important for Montgomery County youth. It was also ranked fourth out of ten curriculum areas for educational needs among the county's youth.

The well-being of Virginians depends on individual and family financial capacity. Financial capacity will enable individuals to make informed choices, sound decisions, and avoid financial pitfalls, as well as obtain knowledge of strategies to implement during times of financial crisis. The process of developing financial capacities will provide individuals the appropriate tools to understand and apply financial products, services, and concepts in an effort to improve their financial situation

A cross-programming effort of Extension Agriculture and Natural Resources, Family and Consumer Sciences, and 4-H Youth Development can provide many programs that address these needs and concerns for families, youth and agricultural businesses. From a youth perspective, our Extension staff already provides a Reality Store for Christiansburg High School and occasionally for other schools. Additional programming might include Kids Market Place, Real Money/Real World, NEFE High School Financial Planning Program, and others as requested by Montgomery County School Administration.

Issue 5: Healthy Lifestyles

The data indicates that the chronic diseases: heart disease, cancer, stroke and respiratory disease are the leading causes of deaths in Montgomery County. While not among the top five, diabetes is also an area for concern. Chronic disease prevention and management are priority areas nationally and within Virginia. Lifestyle behaviors are a major contributor to risk for chronic disease, and making healthy lifestyle choices can significantly reduce the likelihood of developing a chronic disease. In our needs assessment survey, over 50% of respondents reported that the topic of healthy living, nutrition, and exercise is very important for both adult and youth audiences.

Through a variety of existing programming efforts, Extension provides educational opportunities and resources to address these needs, across the age continuum, as well as those related to overall family health and well-being (nutrition, health, physical and mental). Some examples include Balanced Living with Diabetes, Farmacy Garden, Eat Smart/Move Smart, various Master Gardener programs, and Junior Master Gardener and other youth gardening programs. Cross-programming efforts among Extension program areas can also build success in this area. For example, Extension might provide a gardening program that also provides nutrition/food preparation opportunities for children and their parents/guardians to work together on a shared project while learning ways to improve their lifestyle. Where

appropriate Extension will also partner and collaborate with local agencies addressing similar family issues.

Issues Status: All of these issues are outside the scope of VCE to address.

Issue 1: Land Use, Open Space, Urban Sprawl

Many respondents (74.05%) expressed concerns over the loss of rural and agricultural acreage across the county. Many folks are also very concerned about zoning and land use (57.59%). The increase of subdivisions and urban sprawl contribute to the encroachment on agricultural land and the loss of open space. This problem is compounded by current county land values. Citizens interested in purchasing farms or open land cannot afford land prices. In addition, many farmers are forced to sell their land for retirement income.

The result is the loss of both agricultural land and scenic vistas across the county. In addition, farmers need reliable and affordable incentives in order to keep open farmland for future generations.

Issue 2: Access to Broadband Services

54.09% of the respondents indicated they would like to see an increase to broadband services. According to the most recent census quickfacts data, households with a computer in MC is at 90.5%, while households with broadband internet service only ranks at 84.1%, a difference of 6.4% of those who have a computer but no availability to quality internet service.

Appendix

Situation Analysis Survey

The purpose of this survey is to gather information about issues in Montgomery County. Please take a couple of minutes to share your opinions. The results of this survey will help in shaping Virginia Cooperative Extension programs in Montgomery County. Survey responses are completely anonymous. Please respond to the survey by October 26th.

Please rate the importance of the following Agriculture and Natural Resources topics in Montgomery County.

	Very Unimportant	Somewhat Unimportant	Neither Unimportant nor Important	Somewhat Important	Very Important	No Opinion
Public Awareness						
of Agriculture	0	0	0	0	0	0
Support Agriculture Production and Profitability	0	0	0	0	0	0
Preserve Agriculture Farmland and Greenspace	0	0	0	0	0	0
Farmland Preservation - Estate and Land Transfer (Support AG Use)	0	0	0	0	0	0
Land Use - Zoning	0	0	0	0	0	0

Marketing for Commercial Producers (commodities)	0	0	0	0	0	0
Marketing for AG products sold direct to consumers	0	0	0	0	0	0
Support Best Management Practices and Sustainable Agriculture	0	0	0	0	0	0
Support Urban Agriculture (homesteading, beekeeping, backyard chickens, etc)	0	0	0	0	0	0
Promote Best Practices for Safe Pesticide Handling and Application	0	0	0	0	0	0
Wildlife and Pest Control	0	0	0	0	0	0
Ecosystem and Natural Habitat Protection	0	0	0	0	0	0

Energy Efficiency	0	0	0	0	0	0
Alternative Energy Sources and Use	0	0	0	0	0	0
Natural Resources Production and Profitability	0	0	0	0	0	0
Water Quality	0	0	0	0	0	0
Wildlife Preservation	0	0	0	0	0	0
Other	0	0	0	0	0	0
For the Agriculture and Montgomery County, p be done to address the	lease provide addi	s topics you rated a tional information be	s very important, elow on why you	and consider the feel they are imp	e most importa portant and wha	int for at you think might
Please drag and drop Animal/Livesto Horticulture Local Food Sys Forestry Alternative Agr	ck Production	ulture categories in	the order of impo	ortance for Monto	gomery County	·.

Please rate the importance of the following Family and Consumer Sciences topics in Montgomery County.



OTHER

	Very Unimportant	Somewhat Unimportant	Neither Unimportant nor Important	Somewhat Important	Very Important	No Opinion
Quality Child Care (affordable, available, etc)	0	0	0	0	0	0
Early childhood education (quality of preschool care, quantity of preschool care, etc)	0	0	0	0	0	0
Adolescence (truancy, teen pregnancy, violence, suicide, afterschool activities, etc)	0	0	0	0	0	0
Parenting (parent/child relations, discipline, etc)	0	0	0	0	0	0
Aging (elder care, caregiving, etc)	0	0	0	0	0	0
Nutrition (obesity, managing food resources, chronic disease prevention)	0	0	0	0	0	0
Food safety (home food safety, preservation, commercial restaurants, etc)	0	0	0	0	0	0
Healthy Lifestyles (exercise, stress management, etc)	0	0	0	0	0	0

Financial Management (debt, changing income, retirement prep)	0	0	0	0	0	0
Consumer issues (fraud, scam, ID theft)	0	0	0	0	0	0
Home-based Business (economic development)	0	0	0	0	0	0
Housing (obtaining and maintaining affordable housing, etc)	0	0	0	0	0	0
Indoor air quality (radon, carbon monoxide, lead)	0	0	0	0	0	0
Household water quality (water testing, water treatment)	0	0	0	0	0	0
Opioid and Drug Abuse	0	0	0	0	0	0
Other	0	0	0	0	0	0

For the Family and Consumer Sciences topics you rated as very important, and consider the most important for Montgomery County, please provide additional information below on why you feel they are important and what you think might be done to address them.

Please rate the importance of the following Youth Development topics in Montgomery County.

	Very Unimportant	Somewhat Unimportant	Neither Unimportant nor Important	Somewhat Important	Very Important	No Opinion
Career Preparedness and Readiness	0	0	0	0	0	0
Leadership Development	0	0	0	0	0	0
At Risk Behaviors (substance use, school dropouts, etc.)	0	0	0	0	0	0
Healthy Living, Nutrition and Exercise	0	0	0	0	0	0
School Curriculum Enrichment Activities	0	0	0	0	0	0
Availability of Before and After- School Extracurricular Activities	0	0	0	0	0	0
Character Development	0	0	0	0	0	0

Community Involvement	0	0	0	0	0	0	
Financial and Consumer Readiness	0	0	0	0	0	0	
Other	0	0	0	0	0	0	
For the Youth Developing please provide addition them.							ss
Please drag and drop t	he following You	th Development pro	ograms/curriculun	n areas in the orc	der of importanc	ce for Montgon	nery
County. Animal Science Natural Resour Companion An Healthy Living International A	rces and the Env nimals	ironmental Educati	on				
STEM (Science Leadership Op Communication Expressive Art	e, Technology, E portunities ns Skills	ingineering, and Ma	ath)				
Montgomery County 4- camps, Junior 4-H Can beneficial to Montgome	np, workshops, c	ommunity clubs, ar	nd special interest				day



