



Virginia Cooperative Extension

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Montgomery County 2023 Situation Analysis Report

Montgomery Extension Staff

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Summary of community issues and Extension office response

Priority Issue	Planned Unit Response
Food Insecurity	Collaborative ANR, FCS, and 4-H comprehensive family programs with education in food budgets, gardening, food safety, cooking, and food preservation
Environmental Protections	Programs that address best management practices for producers and homeowners, household and well water quality education, safe handling and application of pesticides, youth environmental education in school enrichment, special interest clubs, and camps; collaboration with environmental agencies
Opportunities for Youth	School enrichment in STEM, comprehensive/substantive after-school programs and community clubs, camping opportunities, programs focused on career readiness; other programs for life skills development (healthy living, citizenship, financial literacy, etc.); target at-risk youth where possible
Mental Health	Programs that provide families with youth mental health first aid education and youth programs on resiliency, emotional well-being, and mindfulness; VA “Farm Safety, Wellness, and Health Toolkit”
Supporting Local Agriculture	Youth programs such as Agriculture in the Classroom, farm and agriculture field days, embryology, youth farmer’s market, and school gardens; provide adult educational programs on markets for locally produced farm products and expanding rural enterprises including agritourism
Organizational Capacity	Seek opportunities to work with other organizations and agencies with similar educational goals; planning for programming that provides more impactful outcomes based on highest areas of needs and available resources

Introduction

Virginia Cooperative Extension (VCE) educational programming starts with an understanding of community needs. Montgomery County programming efforts should be addressing high priority community issues. To help determine these, the Extension staff coordinates a locally driven, in-depth situation analysis every five years.

Montgomery County profile data was collected using various data sources such as the U.S. Census Bureau, the Census of Agriculture, Virginia Department of Health, Virginia Department of Education, Kids Counts Data Center, and VCE Data Commons. Trends identified in unit profile data informed the development of a Qualtrics survey to include issues of potential concern for Montgomery County citizens. Montgomery Extension staff then identified 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 an online Qualtrics survey to the Montgomery County Extension website and our Facebook pages for general public access and then 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 consumer sciences, and youth development. We hosted a listening session for 4-H teens (9) to provide feedback on the survey. In addition, the ANR Agent had previously surveyed local producers (68 respondents) about specific needs for agriculture/natural resources programming and used the results from the survey to reinforce findings through the Situation Analysis process.

One-hundred twenty-one (121) individuals completed the Qualtrics survey. Demographic breakdown of respondents were reported as follows: (1) 93% between 25 and 74 years of age, with the largest group in the 45-54 age range (37%); (2) 70% female, 27% male, and 3% prefer not to say; (3) Hispanic or Latino, 2% yes and 98% no; (4) racial background 89% White, 3% Black or African American, 2% American Indian or Alaska Native, 2% Asian, 1% Native Hawaiian or Pacific Islander, 3% some other race; (5) 87% with total household income greater than 50,000, of this 31% greater than \$150,000; (6) all Virginia residents; (7) zip codes 51% Blacksburg, 37% Christiansburg, 5% Riner, 7% other including two from Shawsville; (8) 74% live in a small city or town, 26% in a rural area; (9) 87% lived in Virginia for more than 10 years; (10) regularly speak another language in their home 4% yes and 96% no; (11) 70% have an Associate's degree or higher; (12) 72% employed full or part time, 2% unemployed, 21% retired, 2% students, 1% unable to work, 2% other.

Prior to this survey, 94% of respondents had heard of Virginia Cooperative Extension and the following for affiliated organizations: Virginia Tech 99%, Virginia State University 75%, Virginia 4-H 94%, Virginia Master Gardeners 86%, Virginia Master Naturalist 50%, Family Nutrition Program 40%, Energy Masters 6%, Master Food Volunteers 14%, Master Financial Advisors 8%, Parent Educators 10%. In the past 12 months, 45% of respondents, or someone in their household, participated in or received information from VCE.

Unit Profile

Basic Demographics

Montgomery County is in southwestern Virginia. It is bounded by Craig, Roanoke, Floyd, Pulaski, and Giles counties. The county is home to over 98,000 residents in its 386.6 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, Carilion New River Valley Medical Center, BAE Systems (global defense and security), Moog Inc (electrical, appliance components), Lexington Rowe Furniture Inc, Shelor Motor Mile Inc, Federal-Mogul Powertrain LLC (engine components), and Corning Glass Works Inc (ceramic fibers).

Population, Age, Gender

Census data indicates that the estimated population for Montgomery County was 98,915 in 2020. This represents a population decrease of 0.8% since 2020 (99,717). In 2020, there were approximately 255.7 people per square mile of the county. This is slightly higher than the state's population density of 202.6 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 2020 gender data, the percentage of males (52%) and females (48%) is relatively balanced. The racial makeup of the county based on 2020 data is as follows: 86.1% White, 4.3% African American, 0.3% American Indian and Alaska Native, 6.6% Asian, 3.7% Hispanic or Latino, 2.7% Multiple Races, and 0.1% Native Hawaiian and other Pacific Islander. Overall, the Montgomery County population is well-educated, with 74% of the population having some college or higher. An estimated 45.9% of the population has a Bachelor's degree or higher, exhibiting an approximately 10% increase from 2017.

Data Sources - US Census Bureau; and Montgomery County Community Profile,
<https://www.virginiaworks.com/docs/Local-Area-Profiles/5104000121.pdf>

Financial Wellbeing and Housing

In 2022, the median household income of Montgomery County was \$65,270 compared to Virginia's \$85,170. From 2019 to 2021 the percentage of households with an income range of less than \$10,000 to \$39,999 increased. Twenty-one percent (21%) of Montgomery County lives below the poverty level while only 10.6% of Virginia's population are below the poverty level. The affordable housing shortfall, relative to low income, is -82.8% compared to -71.5% for Virginia and -61.4% for the nation.

To pay for affordable housing 59.9 work hours are required in Montgomery compared to the national median of 40.6 hours. In Montgomery 27.0% households, compared to the national 22.8%, are spending at least 30% of their income on housing. Of the 43,055 housing units in 2022, 11.74% were vacant, 67.3% of the owner occupied had a mortgage with a median value of \$269,300. Norada Real Estate Investments predicts that the Blacksburg area will experience a slight decline, reaching -0.9% by October 2024.

In 2019, the median real gross rent in Montgomery was \$996; in 2020 it is \$1,161. In 2019 Census ACS data, 46.6% of households were renters compared to Virginia at 33.87%. Part of the difference could be due to the presence of Virginia Tech but income most likely plays a role too.

Also, influencing the housing market is the condition of available houses. DataUSA states that "In 2022, 17.4% of the population was living with severe housing problems in Montgomery County, VA. From 2014 to 2022 the indicator decreased 2.28%".

Health

The CDC's data of the crude mortality rates (per 100,000 population) for the 4-year period 2018-2021 indicate the top five causes of death for both Montgomery County and Virginia. Virginia's are diseases of the heart (180.81), malignant neoplasms (179.13), accidents (52.53), cerebrovascular diseases (46.12) and COVID-19 (43.29). Montgomery County's top two are the same but at a lesser rate: disease of the heart (143.51) and malignant neoplasms (131.34). Third and fourth in Virginia's top five list switched in order: cerebrovascular diseases (44.63) and accidents (40.57). Montgomery's fifth is chronic lower respiratory diseases (39.56).

While not one of the top five causes of death, suicides in Montgomery County have a rate (per 100,000 population) of 13.2. This is one indicator that mental health is still an issue facing many. Virginia Wellbeing reports that 18.10% of Montgomery adults, 18 and older, reported 14 or more days during the past 30 days during which their mental health was not good. That is almost four percent higher than both Virginia and the U.S. percentage. In addition, in a 2020 Morbidity and Mortality Weekly Report (MMWR) article, “Suicide Rates by Industry and Occupation — National Violent Death Reporting System”, 32 States reported a male suicide rate of 43.2 per 100,000 among farmers and ranchers in 2016, compared to 27.4 per 100,000 among male working aged adults across all occupations, an increase in risk of 1.5 times.

Foodborne illnesses are usually caused by improper handling of food from the production to the serving steps. In 2021 the CDC solved 47 of the reported 74 multistate outbreaks. Those solved outbreaks caused 1,170 illnesses, 496 hospitalizations and 15 deaths. Only a small amount of foodborne illnesses is connected to a foodborne illness outbreak and many credit their illness to ‘the bug’. It is estimated that, annually, a total of 128,000 are hospitalized and 3,000 die of foodborne diseases. In Roanoke, Virginia a 2021 Hepatitis A outbreak resulted in 51 cases, 31 hospitalizations and 3 deaths were associated with one food handler that was infected.

Currently, Virginia is also focused on efforts to combat drug use and addiction. The Virginia Department of Health reported 2,490 drug overdose deaths in 2022, representing a 5% decrease from 2021. Unfortunately, the number of drug overdose emergency department visits among Virginians (22,398) showed a 5% increase to 2021 numbers. New Hepatitis C cases (792) have also increased in 2022. In Montgomery County, 15 individuals died from an overdose, and 306 were treated at an outpatient clinic in addition to another 66 that received other care options.

Food Security and Insecurity

In 2003 USDA updated language that is used to describe the ranges of severity of food insecurity. The four definition terms are:

High Food Security: no reported indications of food-access problems or limitations.

Marginal Food Security: one or two reported indications -typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake.

Low Food Security: reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.

Very Low Food Security: reports of multiple indications of disrupted eating patterns and reduced food intake.

During 2022, 5.1% of U.S. households (6.8 million) experienced very low food security at some point. Ninety-five percent (95%) of these households experiencing very low food security in the United States reported the following: (1) they were worried about their food running out, (2) they could not afford a balanced meal, (3) they would have to cut the size of their meal or skip their meal, and (4) ate less than they thought they should.

According to 2021 Feeding America data, the food insecure population in Virginia is 8.1% of the Commonwealth’s population. In Montgomery County there are 10,520 food insecure people, 10.6% of the county’s population. A rate which is two percent higher than Virginia’s.

Another way of determining areas of needs include identifying food deserts which the USDA Food Access Research Atlas defines as “a neighborhood that lacks healthy food sources due to income level, distance to supermarkets, or vehicle access”. The United States Department of Agriculture (USDA) has identified four census tracts as food deserts in Montgomery County.

Child Well-Being

In 2016, 13.4% of Montgomery County children (2,082) under the age of 17 years old lived in poverty. This number decreased to 11.9% (1,761) by 2020. This compares to Virginia rates of 14.3% and 12.2% in 2016 and 2020 respectively. In 2017, 41.4% of children (3,548) received Supplemental Nutrition Assistance Program (SNAP) benefits. By 2020, that number decreased slightly to 41.3% (3,115).

In 2016, 14.6% of children (2260) experienced food insecurity. By 2020, this number had decreased to 8.1% (1230), just below the state rate of 9.7%.

From 2016 to 2020, 20.3% of children lived in single-parent households. This number is lower than the state rate of 30.8%. In the 2016 state fiscal year, the number of children entering foster care for at least one day in Montgomery County was 2.0 per 1000 population. This increased to 2.2 per 1000 by state fiscal year 2020. On average, Montgomery rates are higher than those for the state; Virginia reports rates of 1.5 and 1.4 respectively for 2016 and 2020.

When a case of suspected child abuse or neglect is reported, the local Department of Social Services decides whether to conduct a family assessment or an investigation. Investigations are either founded or unfounded. The number of founded cases in Montgomery County increased from 103 in 2018 to 159 in 2019 and 149 in 2020.

According to the National Center for Education Statistics, 28% of students aged 12-18 have been bullied, and 9% experienced cyberbullying. The National Crime Prevention Council found that nearly 43% of students have experienced or seen someone bullied online. A 2019 Virginia Department of Health youth survey found that “high school students who experienced cyberbullying were more likely to report feeling sad for 2 weeks or more (59.6%), report alcohol use (42.5%), consider suicide (41.0%), purposely hurting themselves without wanting to die (36.4%), use electronic vapor products (35.5%) and use marijuana (29.0%).” In response to these trends, the Virginia Department of Education provides information on the prevention of bullying through OnlineSchools.org.

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 and provisions for children in low-income households who might not otherwise benefit from programming opportunities. It also suggests a need for programming efforts to address youth mental health influenced by the prevalence of bullying/cyberbullying.

Data Sources -

Kids Count data <http://www.aecf.org/kidscount>

Virginia Department of Education <https://www.doe.virginia.gov/>

Virginia Department of Health <https://www.vdh.virginia.gov/content/uploads/sites/69/2021/03/VYS-2019-High-School-Bullying-and-Teasing.pdf>

Education

Montgomery County enrolls 10,789 students in grades K-12, 87.4% in public school and 12.6% in private school (2022 US Census Bureau). For the 2023-24 school year, the Montgomery County Public School District (MCPS) enrolled 9,591 students in Pre K through 12th grade. There are 20 schools in the county’s four attendance areas (Christiansburg, Blacksburg, Riner, and Eastern Montgomery), including eleven elementary, four middle, four high, and one school for at-risk youth (grades 8-12). Schools within the division vary in size and are located in both urban and rural settings. The demographic breakdown for gender is as follows: Female (4584, 47.80%), Male (4951, 51.62%), Unreported (56, 0.58%) and for race/ethnicity: American Indian or Alaska Native (19, 0.198%), African American (403, 4.20%), Asian (408, 4.25%), Hispanic (787, 8.21%), Native Hawaiian or

Pacific Islander (6,063%), White (7379, 76.94%), Non-Hispanic Multi-Racial (589, 6.14%). There is also a large number of home-school students in Montgomery County, 761 for the 23-24 school year.

The 2023 Virginia Department of Education’s “All in VA: Annual Standards of Learning (SOL) Assessment Rates”, revealed several key findings: (1) Lowered proficiency cuts for the 2020-21 SOL assessments masked the dramatic drops in post-pandemic student performance caused by extended school closure; (2) More than half of Virginia’s students are not meeting proficiency benchmarks in reading and math particularly among elementary and middle school students; (3) COVID-19 closures had greater impact on certain student groups, with significant declines in reading and math (ethnicity, economically disadvantaged, limited English proficiency, and students with disabilities); and (4) Chronic absenteeism nearly doubled since 2018. Chronically absent students suffer substantially compared to their peers, performing 18% lower in reading and 25% lower in math.

In Montgomery County, SOL pass rates for all students have declined since 2017-2018 as indicated in the Virginia Department of Education table below. As with state findings, these declines are more pronounced in subgroups – Hispanics, blacks, economically disadvantaged, students with disabilities. Student achievement objectives in the Montgomery County Public Schools Comprehensive Plan, 2021-2026, include (1) providing access to exemplary and meaningful learning opportunities that engage students in collaboration, communication, critical thinking, developing creativity, and building connections, (2) providing access to safe and vibrant learning environments that facilitate instruction, learning, and collaboration and promote physical, mental, emotional, and social well-being, (3) providing students in poverty with resources to address their physiological, social, emotional, and cognitive needs, (4) providing equitable access to resources, programs, opportunities, and learning experiences regardless of barriers, and (5) helping students learn resilience and life skills in a safe and supportive environment that promotes social, emotional, mental, and physical well-being. Extension educational programs can provide additional resources and supplemental hands-on instruction to help teachers in these objectives for inclusivity and academic performance, especially in areas of STEM (Science, Technology, Engineering, and Math) and life skills development.

Table 1. Pass Rates for Virginia Standards of Learning

Subject	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
English: Reading	81	81	COVID	70	76	76
English: Writing	76		COVID	75	65	63
History, Social Sciences	82		COVID	61	72	76
Mathematics	81	86	COVID	57	73	76
Science	84	83	COVID	61	66	70

The Virginia Department of Education (VDOE) publishes annual state-level, division-level and school-level SOL reports of pass rates for all students and subgroups (ethnicity, economically disadvantaged, limited English proficiency, and students with disabilities).

For the class of 2018, 429 received advanced diplomas, 274 standard diplomas, and 29 special diplomas, for an on-time graduation rate of 95.56% and a cohort (766 students) completion rate of 96.21%. Twenty-five (25) students were listed as dropouts, a dropout rate of 3.26%.

The percentages of students who graduated from high school on time has remained fairly consistent since 2018. In 2023, 428 students received advanced diplomas, 317 standard diplomas and 10 special diplomas for an on-time graduation rate of 95.45% and a cohort (791 students) completion rate of 95.83%. Twenty-five (25) students were listed as dropouts, a dropout rate of 3.16%.

It is essential to continue efforts to educate teens about the benefits of a high school education and to encourage them to stay in school. Extension can positively influence this by providing programming on career exploration and highlighting career options through curriculum projects and activities.

In 2021, the average percentage of the Montgomery County population 25+ years old who are high school graduates was 96.4%. The average percentage of the population 25+ years old who earned a Bachelor's degree or higher was 47.9%. 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.

Data Sources -

Virginia Department of Education <https://www.doe.virginia.gov/>

US Census Bureau <https://www.census.gov/>

Agriculture Industry

Based on the 2017 Census of Agriculture & Montgomery County Planning & GIS Dept.

Total land area for Montgomery County consists of 247,584 acres with 101,672 acres (41%) of farmland according to the 2017 Census of Agriculture. As a general look at our county statistics, the number of farms, 584, is down from 603 in 2012, which is a 3.15% loss in farms for the county. The average farm size is 174 acres, a 4 acre decrease from 2012. Agriculture is a major industry in Montgomery County and mirrors the state in employment and economy. The estimated over \$24 million (\$24,296,000) production of livestock, forestry, and horticultural products, within Montgomery County, is the agri-industry base. This estimation represents an increase of \$589,000 in agricultural production for the county since 2012.

Each county farm (584) has an average market value of agricultural products sold equal to \$41,603 annually. Livestock and related sales accounts for almost half of that average, with an estimated \$16,962 sold annually (70% of county AG sales). Cow/Calf sales are the highest market value product with approximately 25,711 head of beef cattle in the county. There is a total of 21,140 acres of forage (land used for all hay and haylage, grass silage, and greenchop) to support livestock. The major crop for the county is corn, which an average of 1,015 acres is produced for grain, and 1,975 acres of corn is produced for silage or greenchop to support livestock production. Wheat is the 2nd most produced crop 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 the Planning Commission, appointed by the [Board of Supervisors](#) to advise them on planning, zoning and land uses. 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 land use definitions, 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.

Useful County/Regional Reports/Assessments

[THRIVE: NRV Food Access Network Report](#)

[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 \$82.3 billion annually and provides more than 381,800 jobs in the Commonwealth. The industries of agriculture and forestry together have a total economic impact of almost \$105 billion. The total employment impact was approximately 490,000 jobs. Every job in agriculture and forestry supports 1.6 jobs elsewhere in the Virginia economy.

According to a 2021 economic impact study, livestock production agriculture accounted for nearly 63% of farm cash receipts with poultry, beef, and dairy producing the largest products. Crops make up the remainder with grains, such as corn, wheat, and soybeans, being the most significant crops. When the employment and value-added impact of agriculture and forestry are considered together, they make up 9.3 % 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 2021 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 nationally ranked commodities include: tobacco (3rd); seafood (4th), apples (6th), pumpkins and turkeys (7th), peanuts (8th), and broilers (9th).

Virginia AG in a Global Marketplace

In 2022, agriculture and forestry exports were valued at \$5.1 billion.

The top five export markets for Virginia in 2022 were China, Canada, Venezuela, Taiwan, and Egypt. China imported more than \$1.45 billion in agricultural purchases, while Canada totaled more than \$370 million and Venezuela imported more than \$296 million in 2021.

Virginia's top agricultural and forestry exports in 2022 were soybeans at over \$2.3 billion, animal products at over \$960 million, tobacco at \$215 million, wood products earned more than \$509 million, and beer exports totaled over \$145 million. One of the largest increases of 2022 were wood pellets which increased 1,379% versus the yearly average. This was likely driven by increased demand in Europe and Asia. All categories related to soybeans showed increases and tobacco exports remained strong with most exports going to Asia.

Source: Global Trade Information Services Inc.

Virginia Farm Facts

Virginia has 41,500 Farms.

Virginia farm operations cover 7,700,000 acres.

The typical Virginia farmer is 59.5 years old. Thirty-seven percent (37%) of farmers are 65 years of age or older.

The average farm size is 180 acres.

Farms cover 7.8 million acres, or 32% of Virginia's total land area of 25.3 million acres.

Approximately 36 % of Virginia's primary farm operators are female.

97% of Virginia farms are family-owned.

Virginia is home to 18,957 new and beginning farmers.

On average, 16¢ of every consumer dollar spent on food goes to the farmer.

Source: 2021 USDA Census of Agriculture, 2016 survey data from NASS and the Economic Research Service (ERS)

Community and Resident Perspectives

The quantitative results to the following question "From your perspective, how much effort do you think VCE should spend on each of the following issues?" are summarized in the following table.

Table 2. Quantitative Results to Community Survey

Issues	% Respondents Ranking Issues as Very High Effort	Mean 1 no effort to 5 very high effort
Helping households reduce water use	7.44%	3.17
Helping communities be better prepared for and respond to natural disasters	11.57%	3.52
Promoting small business entrepreneurs	12.40%	3.18
Supporting businesses which engage in agritourism	14.05%	3.33
Promoting alternative agriculture	14.05%	3.47
Preserving foods for home use (canning, dehydrating, fermenting, freezing)	15.70%	3.53
Strengthening workforce readiness	16.53%	3.51
Promoting economic development	17.36%	3.41
Reducing obesity	18.18%	3.5
Preventing chronic disease	18.18%	3.56
Helping Virginian's become more energy efficient in their homes, farms, and businesses	18.18%	3.65
Composting, reducing, and recycling consumer goods	18.18%	3.53
Helping consumers make healthy food choices	19.01%	3.59
Strengthening dependent care	19.01%	3.31
Assisting forest landowners with sustainable management practices	19.83%	3.74
Assisting local government and businesses with land use decisions	19.83%	3.6
Building healthy families	19.83%	3.6

Conservation and utilization of forest resources	20.66%	3.76
Facilitating civic engagement	20.66%	3.62
Strengthening parenting skills	20.66%	3.47
Getting more adults involved in mentoring youth	21.49%	3.69
Helping communities improve the quality of life	21.49%	3.77
Building capacity for farm to school programming	21.49%	3.62
Assisting farmers and forest landowners in production and profitability	23.14%	3.73
Teaching people to manage their money	22.31%	3.51
Teaching healthy relationship skills to teens	23.14%	3.65
Addressing poverty	23.14%	3.56
Ensuring safe food handling practices to prevent foodborne illness	23.97%	3.83
Ensuring safe, high quality foods	23.97%	3.89
Managing natural habitats and ecosystems	23.97%	3.92
Preventing youth violence	23.97%	3.47
Reducing misuse and overuse of pesticides and fertilizers	29.75%	3.96
Promoting scientific literacy among youth	31.40%	3.93
Preserving farm and forest land	32.23%	4.07
Teaching youth good money habits	32.23%	3.79
Protecting air quality	33.06%	4.07
Promoting agricultural, natural resources, and environmental literacy	33.88%	4.02
Addressing adult and youth mental health	34.71%	3.91
Controlling invasive pests (plants, animals, insects)	36.36%	4.12
Helping youth develop leadership, citizenship, and other life skills	38.02%	4.08
Addressing hunger issues	38.84%	3.89

Strengthening the local food system	39.67%	4.12
Protecting freshwater resources (lakes, rivers, springs, wetlands)	39.67%	4.14
Protecting water quality	42.15%	4.26

Of the 44 issues provided for citizens to consider, the top ten issues included: (1) protecting water quality; (2) protecting freshwater resources; (3) strengthening the local food system; (4) addressing hunger issues; (5) helping youth develop leadership, citizenship, and other life skills; (6) controlling invasive pests; (7) addressing adult and youth mental health; (8) promoting agricultural, natural resources, and environmental literacy; (9) protecting air quality; and (10) teaching youth good money habits. These results were combined with comments to the open ended question: “VCE, the outreach arm of Virginia Tech and Virginia State University, is dedicated to helping steward natural resources, improving public health, strengthening our food supply, empowering youth, and supporting agriculture to advance the wellbeing of all Virginians. What do you believe is the most pressing community issue for VCE to address in Montgomery County and why do you think this?” We organized all the comments in themes and many paralleled the top 10 rankings for issues in the quantitative section of the survey (above). Major themes were food insecurity and addressing hunger, environmental protection and climate change, adult and youth mental health, positive opportunities for youth to develop life skills for future education and career endeavors, and understanding/supporting local agriculture. These themes represent issues that Extension has the resources to address and are described below as our priority issues for programming efforts.

Community 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: Food Insecurity

Though the number of Montgomery children experiencing food insecurity has declined since 2016, there were still 8.1% (1230 total children) who did not have access to sufficient food or adequate quality food to meet basic needs in 2020. With over 10% of the entire population of Montgomery County currently experiencing food insecurity, and the fact that addressing hunger issues ranked 4th as requiring programming efforts (38.84% indicating a need for very high effort), there are implications for collaborative efforts for ANR, FCS, and 4-H. Approximately 20% of respondents to our survey specifically referenced food insecurity when asked what they perceived as the most pressing community issue for VCE to address in Montgomery County.

Issue 2: Environmental Protections

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 ranked first among areas of concern (42.15% of the 121 respondents indicating a need of very high effort) across all program areas. In addition to the ranking, Water Quality was also mentioned repeatedly in the comments section providing our unit more clarity around the diverse definition, including - agriculture production

water, agriculture livestock exclusion, agribusiness (food, breweries, wineries), stormwater runoff, residential water usage & quality, stream/river quality, and watersheds.

Protecting freshwater resources (lakes, rivers, springs, wetlands) (40% of respondents), controlling invasive pests (plants, animals, insects) (36% of respondents), and protecting air quality (33% of respondents) also ranked in the top 10 needs for programming effort indicated as very high effort. Inclusion of these topics stresses the importance of environmental programming in Montgomery County.

Proper management, handling, and application of pesticides is an ongoing priority for Extension programming (29.75% rank). Related to this, maintaining water quality with attention to stormwater runoff and sources of both organic and inorganic pollution is also a high concern for the respondents of the needs assessment.

Approximately 12% of survey respondents also stated a need for youth programming related to environmental and natural resources protection including education on the impacts of climate change, and 31.4% of respondents indicated that promoting scientific literacy among youth is an issue that should require very high efforts for programming.

Issue 3: Opportunities for Youth

Unit profile data indicates that SOL pass rates for all students have declined since 2017-2018, a trend that is more pronounced in certain subgroups – Hispanics, blacks, economically disadvantaged, and students with disabilities. Programs to reach at-risk youth and supplement instruction in STEM studies are needed to help Montgomery County students improve achievement levels and test scores. Survey respondents were asked what they believed were the most pressing community issues for VCE to address in Montgomery County. Regarding youth, several indicated the need for more overall engagement opportunities including Cloverbud, after-school, and college preparatory/career readiness programs. One respondent indicated that many public after-school programs have been eliminated or are no longer affordable options and that youth need more comprehensive educational opportunities to help them develop future post-secondary education and career goals. The survey issue “helping youth develop leadership, citizenship, and other life skills” was among the top five that survey respondents ranked as needing very high effort (38% of respondents).

Issue 4: Mental Health

Addressing adult and youth mental health ranked 7th among issues Montgomery citizens perceive as needing attention (34.71% of respondents rated it as requiring very high effort). In conversations with 4-H teens, they ranked this as one of the top three issues facing their peer groups. Related to this, they expressed concerns about prevalent bullying, especially through the use of social media (cyberbullying). One of the goals in the Montgomery County Public Schools strategic plan includes, helping students learn resilience and life skills in a safe and supportive environment that promotes social, emotional, mental, and physical well-being.

Farmer mental health and suicide prevention has also become a nationwide issue in recent years. Significant economic stressors such as falling commodity prices, natural disasters impacting product yields, increased farm debt, and labor shortages compound on the daily stressors of farm life and family health and safety concerns.

As opportunities to address the mental health needs of Montgomery citizens are considered, all efforts will be made to work with local organizations and agencies to prevent duplication of services.

Issue 5: Supporting Local Agriculture

Almost 10% of survey respondents commented on the need for agriculture literacy programming for youth, efforts to educate young people on how, and from where, they get their food (33.88% indicating a very high effort

for promoting agricultural, natural resources, and environmental literacy). traditional forms of agriculture and provide youth with information on careers in the agriculture, food systems, and agritourism fields or industries.

Respondents equally determined the promotion and support of local food systems as very important. In fact, “Strengthening Local Food System” rated the top 3rd category priority (40% of respondents indicated as very high effort) for all program areas with 11% of comments reiterating this need. 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 agricultural products described as commodities. Research continues in this area to discover the best data sources needed to provide better metrics around the conversation.

Issue 6: Organizational Capacity

There were several comments in open-ended questions expressing concern over Extension’s capacity to address so many varying community needs as included in our survey. Two examples of these comments include: “All issues are important, but VCE can’t do it all.” “VCE staff of six in Montgomery County VA is charged with all these efforts. Wow, that’s a lot of stress and planning. Some counties have no VCE employees or fewer than six. Seems that VCE should partner with other organizations rather than trying to do all of these efforts. VCE should limit their efforts to the ones they do the best and refer callers to other organizations.”

Respondents indicated that many of the survey issues are addressed through other organizations. Extension should identify areas where it provides duplication of services and should consider either collaborations with those organizations or redirecting efforts to areas not currently receiving attention.

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

Issue 1: Urban Sprawl

When asked about the most pressing community issues for VCE to address in Montgomery County, many respondents expressed concerns over the loss of rural and agricultural acreage across the county. 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: Affordable Housing

In addition to urban sprawl, respondents indicated the ongoing need for affordable housing; a trend that was also described in unit profile data which indicated that Montgomery residents are spending at least 30% of their income on housing. As Montgomery County is home to one 4-year university (Virginia Tech) and is in close proximity to another (Radford), the cost of living for rent and mortgages in the area is much higher than it is in surrounding New River Valley counties and communities.

Issue 3: Broadband

Respondents indicated they would like to see an increase to broadband services. According to the most recent census Quick Facts data, households with a computer in Montgomery County is at 95.3%, while households with broadband internet service only ranks at 90.3%, a difference of 5% of those who have a computer but no availability to quality internet service.

Future Programming to Address Community Issues

Issue 1: Food Insecurity

This issue provides opportunities for collaborative programming efforts for ANR, FCS, and 4-H. These would include workshops and other comprehensive educational activities covering topics such as planning a family food budget, family gardening, establishing community gardens, food safety, preparation/cooking skills, and food preservation.

Issue 2: Environmental Protections

Extension will provide programs and services that help farmers, producers, and home-owners integrate best management practices with a land stewardship focus. In continued efforts towards water quality education, Montgomery County Extension, 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. Virginia Cooperative Extension will also 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. In cooperation with the VDACS Office of Pesticide Services, VCE hosts the Virginia Pesticide Collection Program collecting unwanted, outdated or banned pesticides statewide, at no cost to eligible participants, and disposing of them in a safe manner.

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. Montgomery County also works very closely with the Virginia Produce Safety Team, Virginia Dept of Agriculture and Consumer Services (VDACS), and 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 and commodities; (2) nutrient pollution station for 6th grade stormwater pollution field days at Izaak Walton League Outdoor Education Park; (3) Special Interest (SPIN) clubs or day/residential camps focused on forestry, wildlife, alternative energy, and other environmental topics; and (4) Christiansburg Elementary School Wildlife after-school programs led by VT graduate students in wildlife. The Extension staff will continue to seek educational programming opportunities related to these issues. 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: Opportunities for Youth

Through comprehensive after-school programs and special interest (SPIN) clubs, particularly those targeting at-risk subgroups, 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. In addition, these programs can provide a window to future education and career opportunities.

There is a continued need for programs that better prepare youth for college and for joining the workforce. 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.).

Additional skills that will benefit youth throughout their lives include nutrition, cooking and financial literacy. A study (Adolescents Cooking Abilities and Behaviors: Associations with Nutrition and Emotional Wellbeing), posted on The National Institute of Health site, states that “cooking ability was positively associated with better nutrition indicators, better mental health indicators and stronger family connections.” Teaching youth to cook also teaches nutrition, food safety, and strengthens math, science, literacy and fine motor skills.

Financial literacy is knowledge put to use on a daily basis. Introducing youth to this life skill early has proven to help them to manage money more effectively and make better financial choices. Extension has several hands-on simulations for youth that provide a way to experience the spending plan process without the consequences of the real world.

Issue 4: Mental Health

Montgomery County 4-H can help address needs related to this goal by providing programs like youth mental health first aid for families and youth mental health and mindfulness projects for teens. Programs would cover topics such as depression, anxiety, self-harm, mental health in the media, stigma and various resources.

Virginia Cooperative Extension is currently addressing farmer mental health through the creation of the “Farm Safety, Wellness, and Health Toolkit” which provides resources and training for farmers and farm service providers to use to combat the mental health threats faced by farmers daily. Included in these efforts is the production of farm dinner theaters. Farm dinner theaters, created by Dr. Deborah Reed from the University of Kentucky, establishes a safe environment where, over a meal and through truthful, humorous stories, members of a local farm community may share conversations about the sensitive topics of farm stress and farm safety. Dr. Reed has found through her research that over 60% of farm dinner theater participants make significant changes to their farm safety practices within 2 weeks of the theater. Our unit has plans to utilize this type of program in the future to address mental health topic concerns.

Issue 5: Supporting Local 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 several gardening programs. 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.

Virginia Cooperative Extension-Montgomery County will continue to work with local officials and specialists 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.

Issue 6: Organizational Capacity

Adequate staffing for the size and scope of county needs is an ongoing challenge, one that could be improved by examining Extension's organizational structure, efficiency of work towards more impactful outcomes, and potential for funding opportunities at the county and state levels to provide additional staff and resources.

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