



Situation Analysis Report Madison County

2018

(Published July 1, 2019)



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Madison 4-H Volunteer Leaders
Madison Farm Bureau
Madison Master Gardeners

Madison Young Farmers Association
Madison Farmers Market Association
Culpeper Soil and Water District

Madison Board of Supervisor's Comprehensive Plan
Rappahannock-Rapidan Regional Planning Commission
Madison Economic Development Office

Introduction

The Madison Extension Staff, volunteers and community partners develop educational programs based on the issues and needs of the people. A thorough analysis of the local situation provides the foundation for defining and understanding community issues that can be addressed by Extension programs or foster new collaborations that can address the existing and/or emerging issues. Situation analysis provides the basis and rationale for deciding which issues will receive time, energy, and resources.

Cooperatively determining VCE programming priorities involves a variety of people in analyzing the local situation to identify authentic issues, needs, and opportunities. Involving a diverse group of people who are representative of the population, including both users and non-users of VCE programs and provides a variety of perspectives.

The 2018 Madison situation analysis was led by the Madison Extension staff and involved key community partners in gathering local information and local surveys to stakeholders to determine issue that could potentially be addressed with extension programs and/or resources. Local workgroups that provided information included 4-H volunteers, farmer groups, community groups and government agencies. In addition, a community survey was developed and distributed to the Extension mailing list (4H and Agriculture), Madison Young Farmers, Madison Farm Bureau Board, Madison Farmers Market Association, Madison Master Gardeners and shared via the Madison Extension Facebook page. The 29-question survey resulted in 39 completed surveys returned for evaluation. We also wanted to revisit the 2014 situation analysis to assess reoccurring issues to evaluate programming strategies designed to address those issues. In 2014, we had a much better dataset with 96 completed surveys returned. Survey data was summarized and evaluated to determine priority issues in each Extension program area, which includes Agriculture and Natural Resource, 4-H Youth Development, Family and Consumer Science and Community Viability.

Another strategy to gather information for the situation analysis was local work groups that included farmers, youth, volunteers, community partners and government agencies. For work groups to engage in a meaningful dialogue and decision-making process, a community profile was developed to provide each group with community facts/statistics that were credible and provided an awareness of community concerns. Most of these work groups were informal meetings to review the community profile and identify issues. Other work groups were more organized and focus on specific issues. Culpeper Soil and Water District focused on farm conservation and water quality issues via a strategic planning process (which is available and cited in the appendix) facilitated by Extension and the Rappahannock-Rapidan Planning Commission lead a discussion and surveyed farmers on community food systems and local food policy. The community food system survey was mailed to 1,052 producers in PD 9 and 148 responses were received.

Unit Profile

Madison County is a scenic, rural county with a population of 13,317 in the year 2011. There is one incorporated town with 210 people. The county is located in the upper Piedmont and is bordered by the Blue Ridge Mountains to the west and surrounded by Greene, Orange, Rappahannock and Culpeper Counties. All the surrounding counties, except for Rappahannock have larger populations than Madison County. Large urban areas of northern Virginia and Charlottesville are 70 and 50 miles away, respectively.

The county dominated by agricultural and forest uses. The gently rolling fields of Madison County's Piedmont produce beef and dairy products, hogs, cash grains, and forage. Agricultural uses occupy 37.6% of the County's land area (down from 48.9% in 2002). Forest lands, both commercial and National Park, make up the largest single land use in the county, 57.6%. Wood-related industry, from sawmills to furniture manufacturing, is a prominent sector of the economy. The Blue Ridge Mountains and Shenandoah National Park, with their scenic beauty and recreational opportunity, exert a strong influence on development in the county. There are approximately 250 vacation homes in the county, many of which, although intended as second homes, have become year-round residences.

Madison County has shown a steady growth the last four decades, but not the overwhelming increase seen in some neighboring counties. The total population in 1970 was 8638, and the most recent census in 2011 counted 13,317 residents in the county. This represented a 45% increase in 30 years, but only a 4.78% increase in the last ten years. The data did indicate the age distribution of the population has shifted such that a larger percentage of the county is near or past the normal retirement age. The data shows a 78% increase in the over 65 population since 1970, but a 7% decrease in the young adult age group (18-44) during the last ten years. A second demographic that supported this conjecture was the composition of the households within the county. While the total number of households increased, along with the population, the number of married couples without children in the home showed the greatest increase, at 114% in the last ten years.

Twenty-two percent (2,928 youth) of the population are youth ages 5 – 18. The youth population has decreases by 4% over the last 10 years. Approximately 1850 students attend our public school systems that includes one primary school, one elementary school, one middle school and on high school. All schools continue to achieve accreditation. The remaining students are home-schooled or attend private schools in the area. Madison's on-time graduation rate continues to be higher than the state average. In 2012, Madison ranked third in the state (97.3%) for students graduating on-time. Over seventy-five percent of the students continue their education beyond high school.

Madison County's economy maintains an agricultural base but has several strong non-farm business sectors including services, trade, manufacturing and construction. The County is centrally located between Charlottesville and Culpeper where many of its residents work and obtain services. Madison's per-capita income tends to be lower than in the rest of our Planning

District, and significantly lower than statewide. But, median household income is similar to statewide numbers; even though significantly lower than our Planning District.

Most of the workers living and working in the private sector in Madison County are employed in the service, manufacturing, trade and construction sectors. Construction jobs in the area continue to be a major source of employment, but they are especially vulnerable to downturns in the economy. The largest five employers in Madison County are: the Plow and Hearth, followed by the Madison County School Board, Woodberry Forest School, the County of Madison and the Autumn Corporation. There is some concentration of employment in wood-related industries in the County, especially manufacturing high-quality furniture. However, by far, most employers in the County are small businesses which have fewer than 10 employees each, and the largest industry, by number of employees is Retail Trade, followed by government, health care and food services.

A large portion of Madison County's economic base has traditionally been agricultural. Over half of the total County acreage was in farms until recently. After peaking at 53.4% in 1978, the amount decreased to 52.4% in 1982, to 50.9% in 1987 and to 48.1% in 1992 and increased slightly to 48.7% in 1997 and 48.9% in 2002. According to the 2012 Census of Agriculture, the total acreage of land in farms is 106,991, representing a 4% increase.

The number of farms in the County increased steadily from 1974 to 1982, but decreased slightly from 1982 to 1987 and again from 1987 to 1997. A slight increase occurred between 1997 and 2002. According to the 2012 Census of Agriculture, there are 522 farms in Madison County, a decrease of 42 (7%) since 2007, but average farm size increase 13% with an average size of 205 acres per farm.

Full-time owners have dominated the operator characteristics of Madison County farms. However, the trend has shifted back and forth from full-time owners to part-time owners and tenants for the last two decades. Family farms declined slightly from 1987 to 1997, but jumped back up in 2002 and overwhelmingly dominated the type of ownership. The market value of products sold, as reported by the 2012 Agricultural Census, is \$28,980,000, an increase of 43% since 2007, but fell slightly (2%) in 2017. Crop sales were \$11.2M (40%) and livestock sales were \$17.1M (60%) of the total market value. The most notable economic indicator in the 2017 census was the 238% increase in government payments (mainly conservation practices) and average farm income remain steady at \$55,693.

Adult and youth health and wellness remain a top concern according to key constituents, community needs assessments and input from local stakeholder groups. The adult obesity rate in Madison has increased 4% from 2010 to a rate of 32%. One third of the adult population is considered obese with 26% considered physically inactive. In addition, 18% of the youth population is living in poverty. Madison VCE has addressed this issue through adult and youth programs. Food Friends and Mighty Moves (two programs that target preschool nutrition and physical activity) are offered to all Madison Head Start students. The Madison Boys and Girls club members receive monthly instruction and hands-on activities on healthy

eating and meal preparation. Adult nutrition and food safety workshops are also offered and limited resources families receive individual nutrition and healthy eating lessons.

Family and adult financial health were also concerns from the community survey. According to the Jump \$tart Coalition which conducts a bi-annual survey of financial knowledge among high school students, financial literacy among teens has fallen to its lowest level with a score of 48%. American college graduates are slightly more financially literate with a score on the same exam of 65%. Only 25% of young adults are graduating from college. This means that 75% of adults are likely to lack skills to make educated financial decisions. Virginia schools understand the importance of financial education among students and are requiring students entering ninth grade to take one unit of credit in economics and personal finance to graduate with a standard or advanced studies diploma. Gaining financial literacy is a long-term process. Research has shown that young people determine their attitude about handling money by the time they finish 5th grade. VCE partners with the school system at the 3rd grade and 12th grade level to offer financial and career education programs to youth.

Community and Resident Perspectives

The community survey was a comprehensive poll of the important issues in agriculture and natural resources, youth development, volunteers; and families and nutrition. Surveys were distributed to the Extension mailing list (4H and Agriculture), Madison Young Farmers, Madison Farm Bureau Board, Madison Farmers Market Association, Madison Master Gardeners and CSWCD Directors.

Background information on was collected on participants on their knowledge of Extension programs and how they prefer to receive information. Staff thought that this information was important to marketing and planning Extension programs in the community.

Survey Question: How familiar are you with Virginia Cooperative Extension and its mission, programs and staff in Madison County?

| | <u>2014</u> | <u>2018</u> |
|-----------------------------|-------------|-------------|
| Not Familiar with Extension | 4% | 0% |
| Somewhat Familiar | 22% | 25% |
| Familiar | 30% | 43% |
| Very Familiar | 25% | 32% |

Survey Question: How do you prefer to receive Extension Information?

2014 Data

| Preference Rank | Information Preference | Response Percent |
|-----------------|--|------------------|
| 1 | In print, such as newsletters & fact sheets | 56% |
| 2 | Face-to-face with Extension Staff & Volunteers | 52% |
| 3 | E-mail of programs, events & newsletters | 47% |
| 4 | Internet (websites and blogs) | 39% |
| 5 | Social Media | 17% |

Initial survey results for prioritizing key issues in Madison County were inclusive as the average values had little variation within program area, but showed differences between program areas.

The top six Youth Development issues determined by surveys:

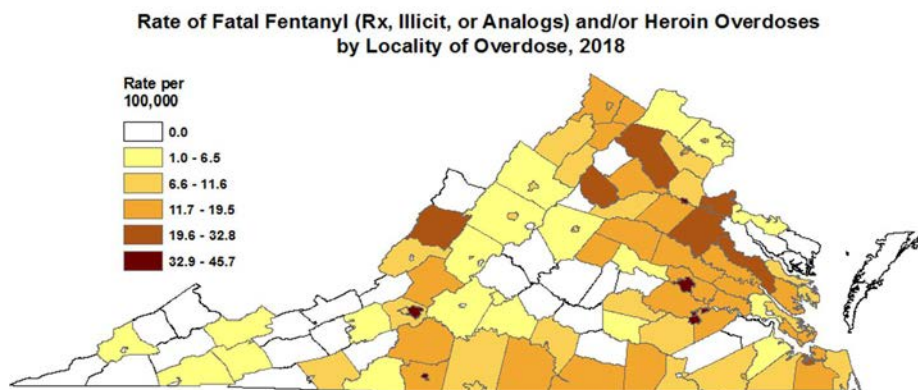
2018 Surveys (n=39)

| Rank by Survey | Youth Development Issues | Score of Importance (1 – 5) |
|----------------|---|-----------------------------|
| 1 | Risky Behaviors Prevention | 4.42 |
| 2 | Nutrition Education for Youth | 4.36 |
| 3 | Life Skill Development | 4.28 |
| 4 | Financial Education for Youth | 4.21 |
| 4 | Positive Role Models, Character/Bullying ED | 4.21 |
| 6 | Community Involvement/Youth Volunteerism | 4.18 |

2014 Surveys (n=96)

| Rank by Survey | Youth Development Issues | Score of Importance (1 – 7) |
|----------------|--|-----------------------------|
| 1 | Life Skill Development | 6.46 |
| 2 | Positive Role Models | 6.40 |
| 3 | Financial Education | 6.35 |
| 4 | Workforce/Career Development & Readiness | 6.29 |
| 5 | Leadership Skill Development | 6.15 |
| 6 | Character Education/Bullying Prevention | 6.14 |

The stakeholder survey reveals the public’s awareness of opioid abuse and opioid related deaths in Madison County. In a four-year period, the highest-ranking youth issue changed from life skill development in 2014 to risky behavior prevention in 2018. A full report from the State Executive Council on “Virginia’s Overdose Epidemic Response” is available on-line at <http://www.vdh.virginia.gov/home/opioid-overdose-risk-mitigation>.



Source: Virginia Department of Health, Office of the Chief Medical Examiner

The top six and Natural Resources issues determined by survey:

Agriculture

2018 Survey Results (n=39)

| Rank by Survey | Agriculture and Natural Resource Issues | Score of Importance (1 – 5) |
|----------------|---|-----------------------------|
| 1 | Agriculture Production/Profitability | 5.39 |
| 2 | Agriculture Marketing/Local Food Systems | 5.36 |
| 2 | Land Use Planning/Farm Transition/Estate Planning | 5.36 |
| 3 | Farm Safety | 5.31 |
| 4 | Environmental Issues | 5.09 |
| 4 | Pesticides/Best Management Practices | 5.09 |

2014 Survey Results (n=96)

| Rank by Survey | Agriculture and Natural Resource Issues | Score of Importance (1 – 7) |
|----------------|--|-----------------------------|
| 1 | Agriculture Production/Profitability | 6.32 |
| 2 | Environment | 6.30 |
| 3 | Livestock Management | 6.26 |
| 4 | Agricultural Marketing | 6.23 |
| 5 | Awareness of Agriculture & Natural Resources | 6.22 |
| 6 | Farm Safety | 6.20 |

Madison Agriculture Profile

https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Virginia/cp51113.pdf

The top six Family and Consumer Science issues determined by survey:

2018 Survey Results (n=39)

| Rank by ELC | Family and Consumer Science Issues | Score of Importance (1 – 5) |
|-------------|-------------------------------------|-----------------------------|
| 1 | Childcare/Early Childhood Education | 4.12 |
| 2 | Family Health and Wellness | 4.12 |
| 3 | Ageing Population | 3.97 |
| 4 | Financial Management | 3.91 |
| 5 | Housing | 3.91 |
| 6 | Food Safety | 3.82 |

2014 Survey Results (n=96)

| Rank by ELC | Family and Consumer Science Issues | Score of Importance (1 – 7) |
|-------------|---|-----------------------------|
| 1 | Parenting Education | 5.93 |
| 2 | Financial Management/Family Budget | 5.92 |
| 3 | Family Health and Wellness | 5.90 |
| 4 | Nutrition/Cooking Skills | 5.83 |
| 5 | Small Business Development | 5.82 |
| 6 | Food Safety & Preservation Education Ageing Population/Care Givers | 5.79 (tie) |

The top five Community Viability issues determined by survey:

2018 Survey Results (n=39)

| Rank by ELC | Family and Consumer Science Issues | Score of Importance (1 – 7) |
|-------------|------------------------------------|-----------------------------|
| 1 | Community Planning and Development | 4.00 |
| 2 | Economic Development | 3.94 |
| 3 | Employment | 3.94 |
| 4 | Internet and Technology | 3.9 |
| 5 | Small Business Development | 3.9 |

Priority Issues

Youth Support, Services and Community Activities

The most important issues for youth revealed in the 2018 was “Risky Behaviors Prevention” more than likely related to opioid overdose rates in Madison. A SAMHSA grants has been awarded to Virginia Tech that will hire an Extension Project Coordinator in Madison to address opioid addiction and overdose issues. Life skill development and positive roles models remains the youth programming focus for all Extension staff. A life skill is a learned ability to do something well. Life skills are abilities of young people learn that will help them to successful in life. A role model is a person whose serves as an example by influencing others. Youth look to a variety of role models to help shape how they behave in school, relationships or when making difficult decisions. Research has shown that youth who have positive youth-adult relationships are more productive as adults.

VCE will continue to plan structured activities that provide youth with opportunities to develop life skills and interact with other youth and adults who may serve as role models. 4-H club work, camping and other programs focus of life skill development such as communication, decision making and problem solving. The 4-H Agent trains volunteers working with youth to develop the whole person not just individual traits. All programming focuses on positive outcomes desired for youth, not on prevention. In addition, positive adult role models can dramatically affect behavior choices youth make on a daily basis. Adults can plan role of helping to facilitate recreational activities in a safe and caring environment. All VCE volunteers are trained in the methods of positive youth development. This training provides a solid foundation for them to be role models to the youth they serve. VCE also has a camp counselor training program to ensure that teens working with youth are positive role models. There is a need in the county for adults to increase their roles with volunteering to help provide guidance, non-academic education or training, motivation, discipline and fun activities for youth. Madison is a commuter community and 58% of the population commutes 30 minutes or more, the most difficult aspect of addressing this issue is recruiting and maintaining adult volunteers who can commit the time to youth development. Since the population of retired individuals is growing, VCE has been targeting this population for recruitment. Additional efforts need to be explored to better address this issue.

Agriculture Production and Profitability

Agriculture is Madison's largest industry with an annual economic impact of \$29 million. And yet, Madison farmers are struggling with economic profitability, uncertainty and viability. At the same time, individuals and Virginia communities are experiencing increased incidences of obesity, diabetes, diet-related diseases and in some instances, food insecurity. Expanding local fresh healthy food opportunities throughout the Northern Piedmont's food system can improve agricultural economic vitality and strengthen community health and wellbeing. The good news is that during the 2012 production seasons the top agriculture commodities in Madison County (feeder cattle and row crops), had historic high prices that had positive impact farm revenues. But Extension programs and commodity groups continue to train new and existing farmer to explore production opportunities to satisfy the large demand for local grown and value-added agricultural products.

A food system is a collaborative network that includes everyone involved in putting food on our tables, whether that table is in our homes, a restaurant or our kids' cafeteria. This system integrates food production, processing, distribution, consumption and waste management to enhance the environmental, economic and social health of the region.

As part of ongoing efforts to foster sustainable agriculture, the Regional Commission conducted a comprehensive study of the region's food system, culminating in the development of a Regional Food System Plan. An asset assessment, economic analysis, stakeholder interviews, focus group meetings and a producer survey were conducted to document the conditions in the region's farm and food economy as well as stakeholder's challenges and resource needs. The goal of the plan is to strengthen the local food economy to retain more local dollars within the region, while also promoting citizens' health, encouraging preservation of local farmland and enhancing farmers' quality of life.

VCE will continue work with "Buy Fresh Buy Local" campaign that promotes the production and marketing of locally grown food. Program will be designed to train farmers in value added and specialty crop production with various workshops, improve and increase the Madison County Farmers Market producer and consumer base, work with local government for additional farmer's market site investments and finalize the regional farm and food economic study. In addition, Extension will continue to focus on enhancing grain, soybean and forage production, marketing, and sustainability through educational programming, precision agriculture and conservation tillage. Programs planned to address those production/profitability issues include the an area crop production conference, forage conference with VFGC, Northern Piedmont Center Field Day and Twilight Meeting, one-on-one assistance on nutrient management budgeting, cover crop demonstration plots, planter clinic and crop production conference.

Youth and Adult Financial Management Education/Literacy to Achieve Career Training and Economic Security

Financial management, literacy and economic security of youth, adults and families was an issue identified in the 2013 community needs survey. Specific aspects of this issue include: jobs, youth and adult training/literacy, employment, better job opportunities, need for higher wages, need for lower cost of living (including affordable housing, health care, and child care), need for improved transportation, trade jobs for vocational school graduates, economic development through tourism, improving viable small business opportunities, estate planning, and more vocational education. VCE provides financial management, educational programs and counseling for individuals, families, farms and businesses via in-school and after school financial literacy programs, financial mentoring, AARP tax site and small business planning. Extension will continue working with the Madison Economic Development Office and Rappahannock-Rapidan Regional Planning Commission on the three strategic planning initiatives that are focused on the farm and food economy, agritourism and Madison County economic development. VCE will have a role in developing programming strategies to address issues that emerge from the strategic planning process. The only barrier to initiating programs to address those issues is staff, resources and time.

Environmental/Best Management Practices

The EPA Total Maximum Daily Loads (TMDL) legislation, a comprehensive Chesapeake Bay “pollution diet” with rigorous accountability measures to restore water quality. Farmers are concerned about additional regulations that would require costly farm based conservation measure to reduce pollution. To address the TMDL issue, the General Assembly worked with conservation and agricultural organizations to develop “Resource Management Plan” (RMP) legislation that would define conservation strategies for farmers. Extension continues to work with the CSWCD on promoting agriculture best management practices and the septic system mitigation grant project. During the 2012 year, the district allocated \$823,248 to the completion of 97 conservation practices. VCE clearly has a role to assist and educate farmers on achieving the RMP priority conservation practices with programming and assistance on nutrient management planning, precision agriculture, pesticide safety, cover crops, pasture/grazing management and livestock exclusion.

Workforce/Career Development and Readiness

Community members have expressed a need for increased skill development and workplace readiness in teens and adults. VCE has established relationships with school counselors and the career coach and has previously offered job shadowing programs to high school juniors and seniors. More programming can be offered by VCE in the areas of soft skills development and general employment skills. A Career & Technical Education Center (Carver Center and Northern Piedmont Center) would address this need, but has not had available funding in the community or Virginia Tech.

Agriculture Business Management

Most small businesses fail within the first five years. Having programming to help manage Agriculture businesses is important for the viability of the community. VCE will be focusing on profitability, employee management, farm transition planning, land use, and agricultural literacy and advocacy. Creating sustainable resources and partnerships will also be areas addressed.

Food Safety and Healthy Lifestyles

VCE offers food safety, nutrition and wellness programs through in-school enrichment, Head Start, adult workshops, Farm-to-School programs and youth cooking programs. Specific programs offered include: ServSafe, Stone Soup, Balanced Living with Diabetes, Diabetes prevention, Lift-Health and Fitness Program and FitX to encourage eating fruit and vegetables.

After reviewing initial survey results, ranking key issues was difficult as the survey data was inconclusive with little to no numeric variation between issues. Therefore, VCE will continue to focus on programming to address agriculture and natural resource awareness, farm safety and nutrition, health, wellness and fitness as part of the on-going local Extension program. These issues provide an excellent opportunity for interdisciplinary programming. The Madison unit plan of work illustrates this interdisciplinary programming effort with the Youth Natural Resource Education Program, Youth Agriculture Field Days and the Madison County Community Food Program.