



Page County 2023 Situation Analysis Report

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Summary of community issues and Extension office response

Priority Issue	Planned Unit Response
Protecting Water Quality and Freshwater Resources	Offering household drinking water clinics, pesticide recertification courses, programming on nutrient management, and promoting Agricultural Best Management Practices.
Promoting Agriculture, Natural Resources, and Environmental Literacy	Continuing to offer livestock and equine 4-H clubs. Covering agriculture and natural resource topics during in-school and after-school programming. Programming that reinforces environmental literacy concepts to agriculture producers.
Preserving Farm Land, Forest Land, and Agricultural Viability	Offer farm business management programming. Workshops on agriculture production and profitability. Support Farm to School program.
Helping Youth Develop Leadership, Citizenship, and other Life Skills	Continue to provide these opportunities through 4-H Camp, in-school programs, after-school programs, and 4-H project clubs.

Page County Priority Issues

1

**Protecting Water Quality and
Freshwater Resources**

2

**Promoting Agriculture,
Natural Resource, and
Environmental Literacy**

3

**Preserving Farm Land, Forest
Land, and Agricultural
Viability**

4

**Helping Youth Develop
Leadership, Citizenship, and
Other Life Skills**

Introduction

The Page County Situation Analysis was updated in 2023 with the assistance of the Page County Extension Leadership Council (ELC), community members, and Extension Staff. A survey was used to collect community members' perspective to better understand county needs and issues. Surveys were distributed through social media posts, the Page County VCE website, and flyers containing QR codes.

The ELC held meetings during the situation analysis process. The meetings covered multiple topics throughout the process. Topics included explaining the need for the report, providing an overview of the process, deciding survey questions, distributing the survey and reviewing results, editing and refining the report.

Unit Profile

Page County is located in northwestern Virginia. On the east it is bordered by the Blue Ridge Mountains and on the west by the Massanutten Mountain range. The county consists of a valley nestled within the scenic Shenandoah Valley. Page County is approximately 15 minutes from I-81, 30 minutes from I-66 and 90 miles from Washington, D.C. with the caveat that the primary east/west corridor must cross the mountains to reach Interstate 81 or northern Virginia and the north/south corridor consists of a two-lane highway.

Page County consists of 202,240 acres with approximately 32% of the landmass in the Shenandoah National Park or National Forest system. The Shenandoah National Park extends the entire north-south eastern boundary of the county and the George Washington National Forest runs the entire length of the western boundary. The South Fork of the Shenandoah River runs through the county and the valley floor is 12-15 miles wide and 35-40 miles long.

Census data indicates that in 2021 Page County had a population of 23,734 people. There has been a 2.72% decrease in county population since 2010, according to the U.S. Census Bureau. In 2020 there were approximately 76.5 people per square mile of the county. This is significantly lower than the state's population density of 218.6 people per square mile.

According to the 2020 Census, 21.2% of the county's population was over the age of 65. This is a 4.1% increase from the 2010 Census. Additionally, there has been a 3.5% decrease in the 15-44 age demographic. In terms of 2021 gender data, the percentage of males (50.2%) and females (49.8%) is relatively balanced. The racial makeup of the county based on 2021 data is as follows: 92.9% White, 1.2% Black or African American, 0.07% American Indian, 0.4% Asian, 0.4% Some other race, 2.2% Hispanic or Latino, and 2.8% Two or More Races. The Hispanic or Latino population has seen the most growth, increasing approximately 1% since 2010. Additionally, the Weldon Cooper Center for Public Service estimates that between 2020 and 2030 the Hispanic or Latino (of any race) population will increase by 56% in Page County.

The August 2023 unemployment rate for Page County was 3.2%, according to the Virginia Employment Commission. This nearly mirrors Virginia's unemployment rate of 3.1% and is slightly lower than the national unemployment rate of 3.9%. Unemployment rates have been trending down since 2012, with a spike in unemployment in 2020. This increase in unemployment in 2020 could be attributed to the COVID-19 pandemic.

The U.S. Census Bureau estimates that 3,302 people live and work in Page County, 1,770 commute into Page County to work, and 7,197 commute to jobs outside of the county. The majority of those commuting to work outside of Page County were commuting to Rockingham County followed by the City of Harrisonburg.

The Virginia Employment Commission lists the 5 largest employers in Page County as follows: Page County School Board, Walmart, County of Page, Valley Health System, and Masonite Corporation. When looking at employment by industry, the government sector (which includes federal, state, and local) employs the most people in Page County.

Census data shows the median household income in Page County was \$53,168 in 2021. This is approximately \$27,795 below the state median income of \$80,963. According to the Community Health Needs Assessment conducted by Valley Health in 2022, 23.5% of households in Page had incomes under \$25,000. Page County reported poverty rates of 15.1% in 2021, this is down from 17% in 2017. Page County poverty rates are higher than the Virginia average of 10.6%, according to the U.S. Census Bureau.

Page County is ranked fourth in the state for total market value of agricultural products sold. The vast majority of this value is derived from poultry production. The 2017 Census of Agriculture reported that 96% of Page County agriculture sales were from livestock, poultry, and products; whereas, 4% of sales were from crops. Aside from poultry, beef cattle followed by forage (hay/haylage) and row crops make up the next largest segment of agriculture enterprises in the county.

There are 519 farms in Page County with the average farm size of 139 acres. The majority of farms (78%) are less than 179 acres. In the county, 62% of producers are male and 39% are over the age of 65. The average age of a Virginia farmer is 58.5. This continues a long-term trend of aging in the producer population within Page County and the state. This poses concern about how farm operators can transfer holdings while maintaining a sufficient income. This presents an opportunity for Extension to focus more effort on farm succession and transfer programming.

Another issue that frequently comes up among producers is the difficulty hiring and retaining quality employees. In Page County, 26% of farms hire labor. A small percentage (4%) of farms are selling directly to consumers. The majority of farms (73%) have access to the internet. It is pertinent to note that a quarter of farms do not have access to the internet and would need to be reached by other means of communication.

The most recent Census of Agriculture is from 2017. From 2012 to 2017 Page County farmers experienced increases in market value of products sold, government payments, farm-related income, and net cash farm income. Farmers also experienced a small reduction in farm production expenses. Net cash farm income increased 104% from the 2012 to the 2017 Census of Agriculture. There have been numerous events that have occurred since 2017, including the COVID-19 pandemic. These events caused supply-chain issues, increased input costs, and market fluctuations. The 2022 Census of Agriculture results will be released in February of 2024 and will more accurately reflect the last 5 years.

Page County has experienced increased interest as well as instability within its alternative agriculture enterprises. Many of the enterprises and initiatives mentioned in the 2013 and 2018 Situation Analysis are no longer operating. The County has seen growth in the following areas: farmers markets that operate in both the town of Shenandoah and Luray, mushroom production, hydroponic lettuce, and pick-your-own pumpkins. Wineries, distilleries, and various agritourism enterprises remain steady. Although small, alternative agriculture enterprises continue to be a growing and ever-changing segment of the agriculture industry in the county. This may demonstrate a need for increased programming around farm business management and resources for beginning farmers.

The Community Needs Assessment conducted by Valley Health identified Page County as a childcare desert.

According to the Virginia Department of Education, all Page County Public Schools are accredited. The on-time graduation rate for students in Page County was 93.8% for the 2022-23 school year. This is 1.9% higher than the state average of 91.9%. Chronic absenteeism was identified as an issue, with 31% of Page County Public School students missing more than 10% of school days in 2022-2023. This is significantly higher than the state average of 19.5%.

According to the 2023 Health Summary, Page County rates higher than the state average in the areas of adult obesity and physical inactivity. The state average for adult obesity is 32% while Page County's rate is 36%. The state average for physical inactivity is 20% while Page County's rate is 25%. The 2022 Valley Health Community Health Needs Assessment identified health behaviors and chronic disease as the top priority health need stating

that lack of physical activity and poor nutrition are contributing factors to obesity. Obesity can lead to a wide range of health problems and chronic diseases among all ages. It is also noted that the percent of the Page County population that is uninsured is higher than the state average. 12.1% of Page County Residents are uninsured compared to the state average of 8.4%.

The Community Needs Assessment conducted by Valley Health identified Page County as a Medically Underserved Area (MUA). This designation is based on a calculation of the ratio of primary medical care physicians per 1,000 persons, the infant mortality rate, the percentage of the population with incomes below the poverty level, and the percentage of the population greater than age 64. It was also determined that Page County is a Health Professional Shortage Area with shortages in primary care, dental health, or mental health. This indicates that Extension programming geared towards healthier lifestyle choices is very important in the locality.

Community and Resident Perspectives

The community and resident perspectives were identified using a Qualtrics survey. Respondents were given several “issues” and were asked how much effort VCE should spend in each of these areas. The top ten issues were identified and are listed below. There were 97 respondents to the survey. Of those respondents 94.8% were white, 4.1% multi-racial, and 1% African American. Of the respondents 48.5% identified as male, 50.5% as female, and 1% as other. The majority of respondents (86.6%) have lived in Virginia for more than 10 years. The majority of respondents (63.9%) had participated in Extension programs or received information from Virginia Cooperative Extension

The survey identified several areas of concern for community members. The top ten issues expressed by community members were:

1. Protecting Water quality
2. Promoting agricultural, natural resource, and environmental literacy
3. Strengthening the local food system
4. Reducing misuse and overuse of pesticides and fertilizers
5. Protecting freshwater resources (lakes, rivers, springs, wetlands)
6. Preserving farm and forest land
7. Helping youth develop leadership, citizenship, and other life skills
8. Assisting farmers and forest landowners in production and profitability
9. Controlling invasive pests (plants, animals, and insects)
10. Managing natural habitats and ecosystems

Many of these identified issues, were also prominent in the statewide situation analysis. The following were listed in both the state’s top ten issues as well as Page County: protecting water quality, protecting freshwater resources, strengthening the local food system, and managing natural habitats and ecosystems. This shows both a local and statewide need for resources to address these concerns.

Residents were also given the opportunity to share what they thought was the county’s most pressing issue in a free response text box. Additional concerns raised were the need for more activities for youth, the economy, impacts of tourism, urban sprawl/development, food insecurity, homelessness, substance use, lack of medical care, lack of affordable housing, sporadic broadband access, and lack of public transportation.

Community Issues

Protecting water quality and freshwater resources:

Protecting water quality was identified as the most important issue in Page County by survey respondents. Water quality has remained a top priority identified in the previous 3 situation analyses. Over 75% of Page County residents rely on private water supplies according to the Page County, Virginia Comprehensive Plan. According to the Virginia Department of Environmental Quality (DEQ), Page County continues to have impaired streams

due to fecal coliform contamination. The affected watersheds continue to work through the process of controlling sources of contamination. DEQ reports the nonpoint sources of bacteria in these watersheds are mainly agricultural and include land-applied animal waste and manure deposited on pastures by livestock. A significant bacteria load comes from cattle and wildlife directly depositing feces in streams. Wildlife also contribute to bacteria loadings on forest and other land uses, in accordance with the habitat range for each species. Non-agricultural nonpoint sources of bacteria loadings include sanitary sewer overflows, failing septic systems, household straight pipes, and pet waste. Residents also shared concerns regarding misuse and overuse of pesticides and fertilizers. Addressing this concern also contributes to protecting and improving water quality and the environment.

Promoting agricultural, natural resource, and environmental literacy:

Promoting agricultural, natural resource, and environmental literacy was identified as the second most important issues. Environmental literacy is defined as the ability to make environmentally sound decisions and take appropriate action. Agriculture literacy is the understanding and knowledge of agriculture and its impact on society. Page County is rich in agriculture and natural resources. With the growing rural-urban divide, agriculture literacy is important for mutual understanding and respect. It is important for citizens to understand the economic, social, and environmental significance of agriculture. This issue is closely tied to the other issues of preserving farmland, forest land, protecting our environment, and agricultural viability. In order to preserve and protect our resources, one must have a general knowledge and awareness of them.

Preserving farm land, forest land, and agricultural viability:

As noted in the unit profile, agriculture is an important part of the local economy and culture of Page County. Preserving farm and forest land, strengthening the local food system, and assisting farmers and forest owners in production and profitability were identified as top issues in Page County. Page County faces concerns about the loss of farmland. The quiet community and picturesque view make Page County an appealing community for retirees, remote workers, and those looking to be close to the city while living in a rural community. Concerns about lack of farm profitability, and problems associated with transitioning the farm to the next generation can increase pressure to develop the land. Concerns about suitable land-use, long-vision of farmland and rural character preservation were concerns voiced by community members.

Helping youth develop leadership, citizenship, and other life skills:

It is important for youth to not only feel connected to their community, but also to feel empowered to take on leadership roles in order to develop life skills. Youth are the future, and by providing opportunities for community involvement now, they are more likely to be involved in their community as adults.

Future Programming to Address Community Issues

Protecting water quality and freshwater resources:

Household drinking water testing clinics have been offered and will continued to be offered in the county through the Virginia Household Water Quality Program. These clinics provide citizens with the opportunity to test and correct any private drinking water issues, including bacterial contamination. Future programs around Agricultural Best Management Practices (BMPs), nutrient management, septic maintenance, stream exclusion fencing, and manure management are likely needed. Proper management, handling, and application of pesticides is an ongoing priority for Extension programming. 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-Page County offers local recertification courses where applicators can gain educational credits to maintain current

certification and licenses status. Our unit also works closely with other support service providers across the county, including Shenandoah Valley Soil and Water, as well as Natural Resource Conservation Services.

Promoting agricultural, natural resource, and environmental literacy:

There are a variety of programs in our office that are addressing this issue. The youth livestock program introduces 4-H'ers to livestock production projects. Agriculture lessons have been taught during after-school programs at three local public schools. In-school natural resource programs, like the Goods in the Woods program, help to introduce 2nd graders to natural resource literacy while nutrition programs such as Read for Health introduces 1st graders to locally grown produce. Our office participates with the Luray High School and Page High School FFA Chapters Food for America Program annually. Food for America is an educational program focusing on agricultural literacy in elementary schools and communities. Additionally, many of the programs offered addressing water quality concerns also reinforce environmental literacy concepts to agriculture producers.

Preserving farm land, forest land, and agricultural viability.

Continued programming around farm business management and various production topics will be offered. VCE will conduct educational programs focusing on soil fertility, forage varieties, management programs, hay production, pasture management and weed and brush control. VCE currently provides educational meetings designed to provide good cultural practices, varieties and pesticide recommendations and uses for fruit, vegetable, and commodity crop producers. Extension staff can and will continue to explore various value-added marketing opportunities for local producers. VCE- Page County will continue to support the efforts of Page County Public Schools in the Virginia Farm to School Program. This program helps support the local food system and gives local producers an additional market for their products. 4-H will continue to provide opportunities for youth to learn about agriculture through livestock clubs, horse clubs, Goods from the Woods, and various after-school programs. Extension staff will continue to partner with and support our Master Gardeners in their work at the three community gardens in Page County. VCE-Page will continue to partner with and support the Daughter of the Stars Farmer's market by connecting them to information and resources relevant to farmer's markets. Future programming to address this issue could include farm transition planning, the Virginia Forest Landowner Education Program, value-added marketing, and food-based businesses programs.

Land-use and zoning concerns are largely outside of the scope of VCE. One tool we can share with local government is VALEN- Virginia's Land & Energy Navigator. This tool developed by Virginia Cooperative Extension could support land-use planning and decision making.

Helping youth develop leadership, citizenship, and other life skills:

VCE and Page County 4-H are already addressing this community issue in a number of ways. Page County 4-H, as a positive youth development organization works with a number of community partners, volunteers and schools to provide programming to the county's youth. These programs are presented in a variety of ways.

Currently, 4-H provides a number of in-school programs for students that focuses on nutrition, financial literacy and planning for future careers, environmental stewardship, and more. There are currently three 21st Century Community Learning Centers (CCLC's) in Page County that serve Page County Middle School, Stanley Elementary, and Luray Elementary that receive 4-H programming that focuses on team building, nutrition, and problem-solving skills.

The 4-H Youth Development program utilizes youth volunteers to serve in leadership roles throughout programming by utilizing counselors at overnight 4-H Camp, various day camps, and through clubs as club officers and committee members. Teen Counselors complete applications, interviews, and reference checks to fulfill counselor roles. This process prepares them for workforce and college experiences. Overnight 4-H Camp

not only provides leadership opportunities for older youth (14-18) but it also provides learning opportunities to all participants (9-18) such as decision making, problem solving, conflict resolution, communication, and management of resources in addition to self-regulatory skills through camp activities. Youth are also encouraged to participate in day camp opportunities that are topic specific.

4-H project clubs all focus on specific topics such as livestock or horsemanship. All project clubs participate in a number of community service projects annually. In addition to learning about their specific projects, youth learn collaboration and various life skills through workshops, group activities, field trips, and record keeping. All livestock club members also complete record book interviews annually in addition to marketing their sale projects to local businesses and individuals. This gives them the opportunity to practice public speaking and interview skills in order to prepare them for future opportunities as they enter the workforce. All project clubs have elected officers who plan and implement programs for the club in addition to running club meetings and keeping club records. 4-H Club officers plan programs for their respective groups and give leadership to the planning process, giving them a vested interest in their club activities. District and State level leadership opportunities are also shared with youth. VCE must continue to recognize and empower youth as role models and give them the opportunity to be leaders in our community. We will continue to expand project club options, as well as camp opportunities, in-school and after-school programs through the recruitment and training of new 4-H volunteers as well as strengthening our partnership with local organizations and schools to carry out additional programs. Opportunities could be further increased for youth in Page County 4-H programs through the allocation of funding resources for staffing positions such as a VCE Program Technician, which was in the Page County VCE Office until the fall of 2020. The loss of the support staff position has slowed the growth potential of Page County 4-H.

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