



ROANOKE VALLEY
LOCAL FOOD PLAN
2020



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INTRODUCTION

In 2018, the Roanoke Valley – Alleghany Regional Commission set out to capture the ongoing efforts of its community partners and member governments in order to promote a healthy food system within the region and to make recommendations for future activities to support this goal. This document, the Roanoke Valley Local Food Plan, is a culmination of these efforts, supporting food system activities in Botetourt, Franklin, and Roanoke Counties, the Cities of Salem and Roanoke, and the Towns of Vinton and Rocky Mount.

The [American Planning Association Food Systems Planning Interest Group \(APA-FIG\)](#) defines food system planning as:

...a dynamic profession that works to improve the well-being of people and their communities by building more sustainable, just, equitable, self-reliant, and resilient community and regional food systems for present and future generations. Food systems planning emphasizes, strengthens and makes visible the interdependent and inseparable relationships between individual sectors from production to waste management. Food systems planning offers solutions to critical policy and planning issues by seeing and leveraging connections to other health, social, economic and environmental issues.

Appropriately addressing regional food system issues requires a focus on the many intersections and impacts that food has upon our lives.

It is difficult for a single community to comprehensively approach how to strengthen its food system. A locality may have businesses that produce food but much of that food is distributed and consumed outside of that locality. Conversely, a dense urban area can hardly hope to produce all of the food it needs. This is the case in the Roanoke Valley, where food production largely occurs outside of the major population centers where the most food is consumed. To truly approach the local food system, we must use a regional lens. More information about the characteristics of the study area are included in the Regional Snapshot section.

The Role of the Regional Commission

The Roanoke Valley – Alleghany Regional Commission (Regional Commission) has actively included local food system research and support in its workprogram since FY15. The activities of the Regional Commission are discussed in this section.

Food Access Assessment for the City of Roanoke

In 2015 the Regional Commission produced a Food Access Assessment for the City of Roanoke. This document used USDA data regarding food access and Census information to assess the food access issues affecting the locality's residents. The assessment found that many of the Census Tracts in the City of Roanoke were considered low access, and several were considered food deserts (low income, low access). A further discussion of food access and its impacts on food security can be found in the assessment.

Local Food Committee

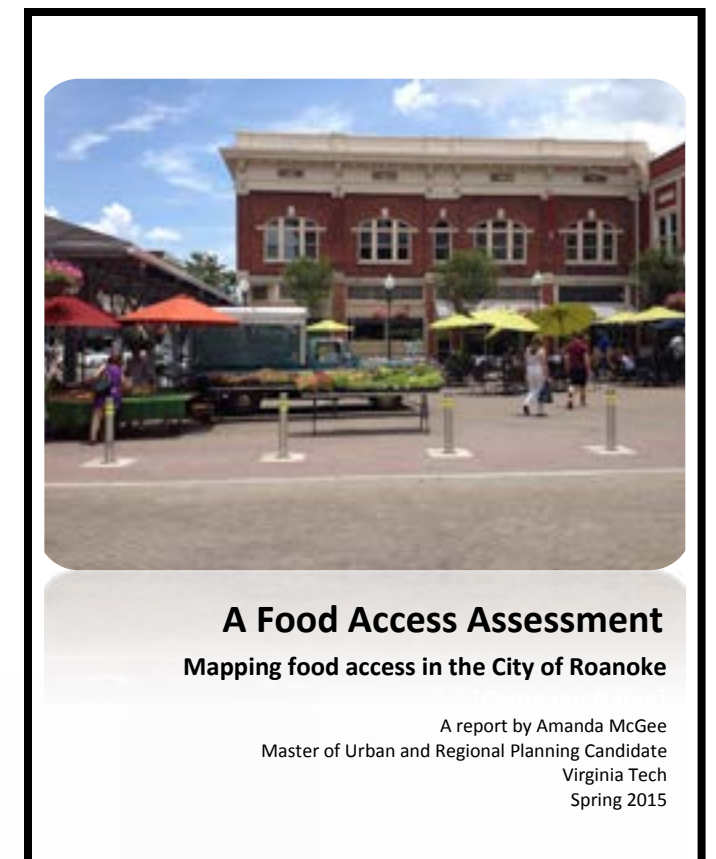
During the time when the Food Access Assessment was being produced, the Regional Commission also worked to form the Local Food Committee, which is a broad group of stakeholders who met to discuss food system issues around the Roanoke Valley. The committee met regularly for two years before going on hiatus in 2016.

Food Hub Action Team

The Food Hub Action Team is a small group of food system professionals who worked to establish a food hub in the Roanoke Valley. The Regional Commission coordinated this effort on behalf of the Local Environmental Agriculture Project. This effort concluded in 2019.

Other Assistance

Over the years, the Regional Commission has provided other assistance in the form of input into new initiatives and efforts for food system organizations and localities, as well as grant writing and technical support. In addition, the Commission has attended conferences and other educational and networking activities to continue to stay informed about efforts across the state and around the country.



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A REGIONAL SNAPSHOT

Currently many local food activities occur in the Roanoke Valley, operated by non-profits, local governments, and other stakeholder organizations. This plan was conceived to make recommendations to address food system issues as well as identify future projects which may support greater regional cohesion in the food sector. Through outreach to stakeholders and citizens, the steering committee has endeavored to capture the complexity of the existing programs on the ground to address food access, food distribution, and food production challenges that impact localities, businesses, and individuals across the study area to provide a clear snapshot of how complex food system work can be.

Several local and regional documents already provide statistics regarding elements of the regional population, farming industry, and other information. However, a brief picture of the region is painted in this section. Further information can be found in the documents summarized in the [next chapter](#).

The Population of the Roanoke Valley

The study area for this document includes the Regional Commission’s member localities of the Cities of Roanoke and Salem, the counties of Roanoke, Franklin, Botetourt, and Craig, and the Towns of Vinton and Rocky Mount. The total population of this area is 313,291 persons, as shown in Figure 1.

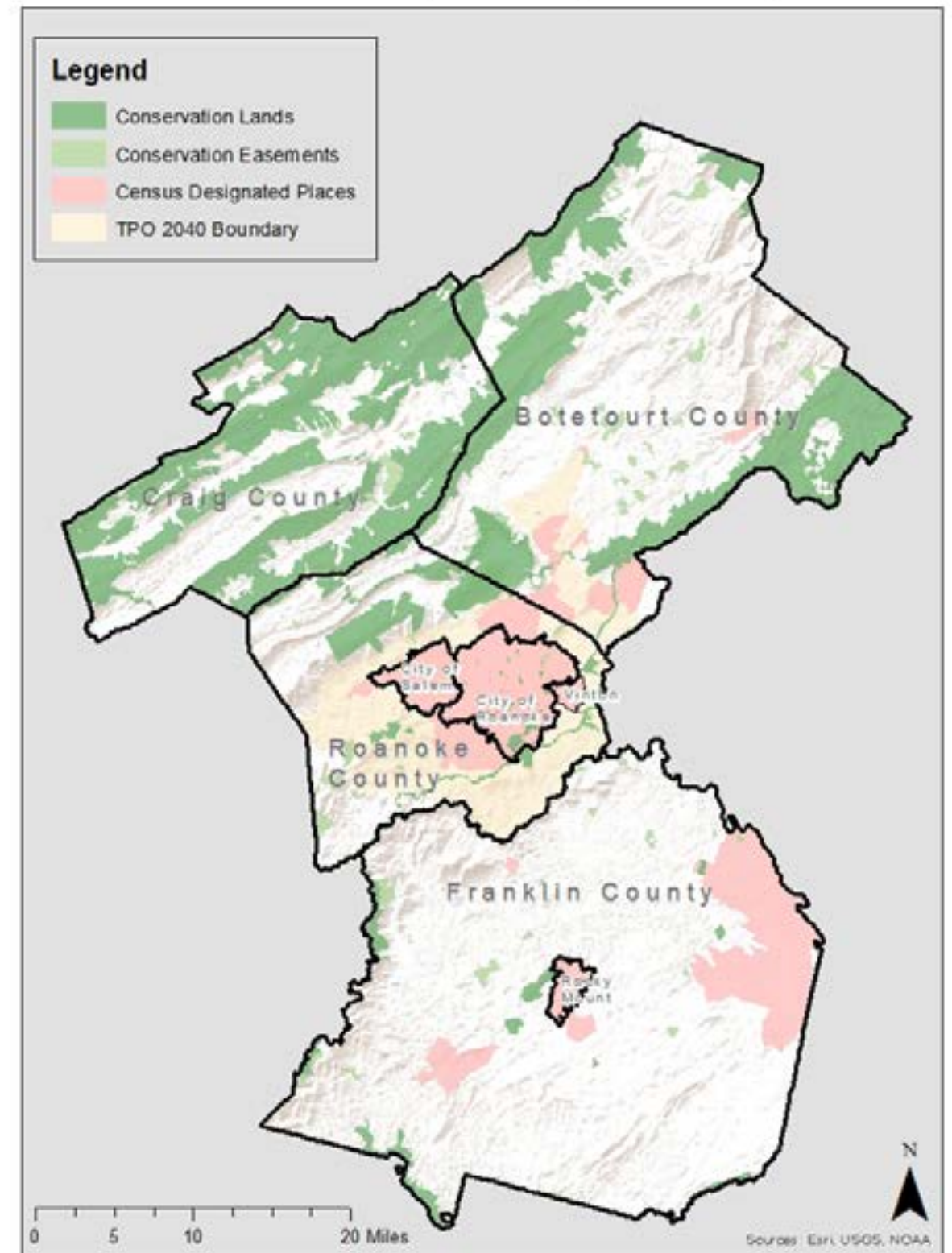
Figure 1: Population of the Study Area

Locality	Population**
City of Roanoke	99,621
City of Salem	25,519
Roanoke County*	93,583
Botetourt County	33,222
Franklin County	56,233
Craig County	5,113

*Includes Town of Vinton

**Census Bureau Community Profile, Accessed July 2020

Figure 2: The Roanoke Valley Food System Study Area



Populations in the urban parts of the study area are generally projected to increase in the coming years, whereas populations in the most rural parts of the study area, such as Craig County, are decreasing. This shift in population has potential impacts on food access and distribution needs as well as food production, briefly discussed in the next section.

The USDA produces data which can be used to assess food insecurity, including the Food Access Atlas as well as the Food Environment Atlas. A study using the Food Access Atlas was previously produced by the Regional Commission in 2015 for the City of Roanoke. “Figure 3: Food Access in the Roanoke Valley” uses the same USDA data from 2015 to show which census tracts within the study area of this document are low income, low access (LILA). Low Access is defined as at least 500 people or 33 percent of the census tract living more than 1 mile (in urban areas) or 10 miles (in rural areas) from the nearest supermarket or other large grocery store. Low Income is a more complex designation, and is defined by the Department of Treasury as:

- a tract in which the poverty rate is 20 percent or greater; or
- a tract in which the median family income is less than or equal to 80 percent of the State-wide median family income; or
- a tract that is in a metropolitan area and has a median family income less than or equal to 80 percent of the metropolitan area’s median family income.

Census tracts in yellow are considered LILA, and are listed in Figure 4.

Figure 3: Food Access in the Roanoke Valley

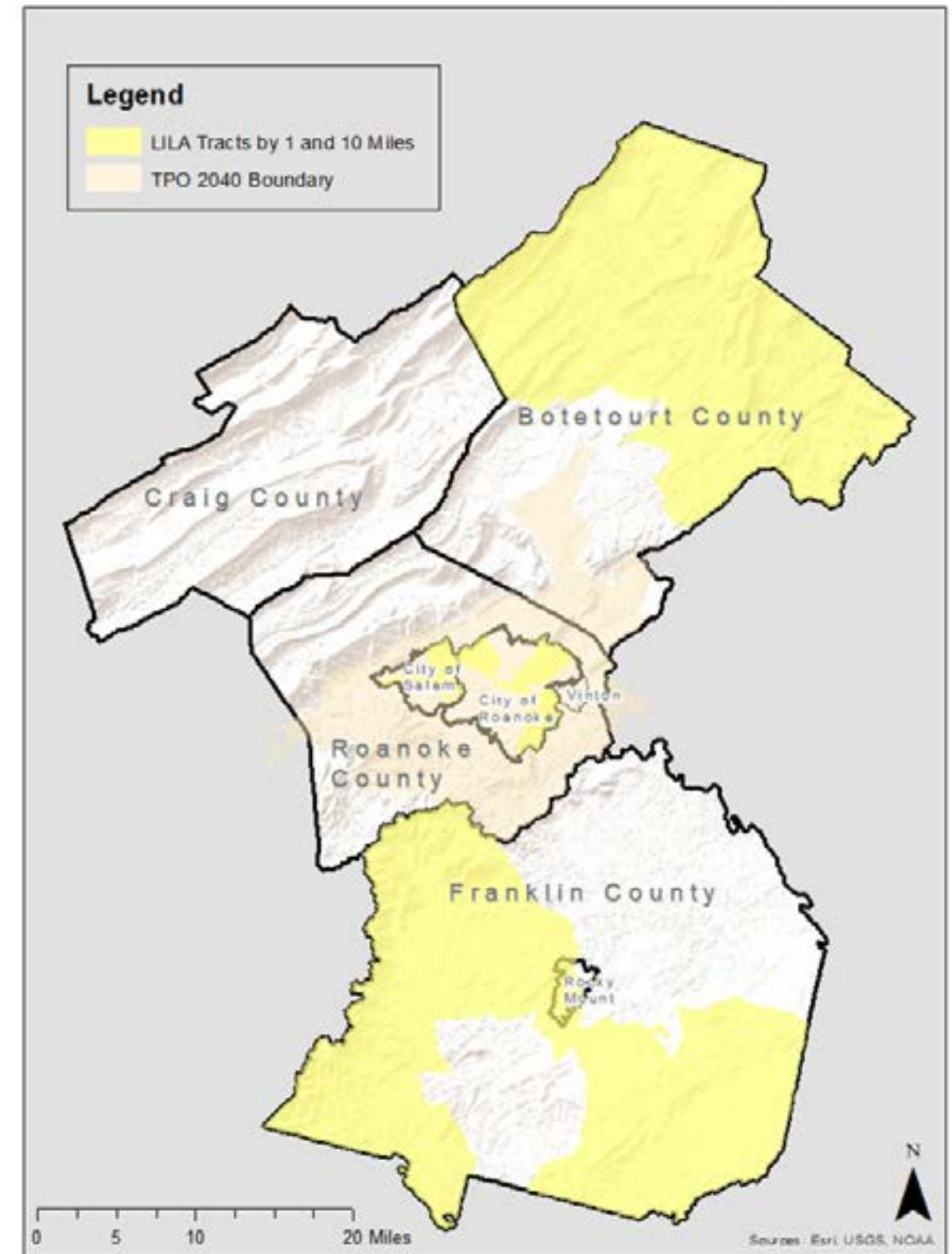


Figure 4: Low Income, Low Access Census-Tracts

Census Tract	County	Population	Poverty Rate	Median Family Income	Population Low Access	Population LILA	SNAP Recipients	Percent SNAP
51023040100	Botetourt	3498	16.7 %	\$ 55,995.00	2060	740	76	2%
51023040200	Botetourt	4294	9 %	\$ 56,453.00	3533	1023	116	3%
51067020500	Franklin	8135	10.7 %	\$ 56,812.00	969	328	197	2%
51067020600	Franklin	3774	13.4 %	\$ 49,489.00	1970	651	102	3%
51067020800	Franklin	6566	20.4 %	\$ 47,823.00	5479	2587	429	7%
51067020900	Franklin	6964	20.7 %	\$ 48,060.00	1869	779	562	8%
51770000100	Roanoke City	3794	20 %	\$ 43,846.00	546	139	302	8%
51770000500	Roanoke City	4615	23.2 %	\$ 40,321.00	2062	801	570	12%
51770000601	Roanoke City	4905	16.5 %	\$ 57,863.00	2147	836	322	7%
51770002300	Roanoke City	6971	28.6 %	\$ 51,013.00	685	379	749	11%
51770002500	Roanoke City	5641	41.4 %	\$ 25,707.00	2688	1866	1092	19%
51770002600	Roanoke City	3215	52.8 %	\$ 30,313.00	1124	755	286	9%
51770002700	Roanoke City	5395	28.5 %	\$ 34,395.00	956	601	587	11%
51770002800	Roanoke City	5414	17.7 %	\$ 40,536.00	1542	512	500	9%
51775010100	Salem	5766	15.2 %	\$ 59,375.00	2866	852	274	5%
51775010300	Salem	4658	20.4 %	\$ 54,760.00	1163	535	217	5%

Figure 5: Census Tracts Lacking Food Access Data

Census Tract	Locality	Total 2010 Population	Poverty Rate (Percent)	Median Family Income	Number of SNAP Recipients	Percentage of SNAP Recipients
51023040302	Botetourt	7567	1.1 %	\$ 79,922.00	35	0%
51023040401	Botetourt	2201	5.2 %	\$ 70,368.00	44	2%
51023040502	Botetourt	1406	12.6 %	\$ 70,580.00	91	6%
51067020101	Franklin	5194	4.4 %	\$ 78,492.00	125	2%
51067020200	Franklin	5529	27.8 %	\$ 40,313.00	540	10%
51067020300	Franklin	6127	7.5 %	\$ 70,871.00	192	3%
51067020400	Franklin	5448	12.3 %	\$ 54,427.00	261	5%
51161030100	Roanoke	3802	11.3 %	\$ 72,390.00	102	3%
51161030204	Roanoke	6671	9.6 %	\$ 62,482.00	259	4%
51161030500	Roanoke	4261	7 %	\$ 80,391.00	86	2%
51161030801	Roanoke	5284	9.5 %	\$ 79,188.00	75	1%
51161030900	Roanoke	5386	7.8 %	\$ 95,795.00	123	2%
51161031000	Roanoke	3856	7 %	\$ 53,868.00	107	3%
51770000900	Roanoke City	5361	39.7 %	\$ 38,158.00	1111	21%
51770001800	Roanoke City	3958	16.8 %	\$ 75,885.00	293	7%
51770002200	Roanoke City	2844	5.8 %	\$ 50,645.00	63	2%
51770002400	Roanoke City	3816	37 %	\$ 33,095.00	213	6%

Counts for the estimated number of low access people present in LILA tracts with available data are included in Figure 4. The table includes information about the number of Supplemental Nutritional Assistance Program (SNAP) recipients within each tract, colloquially known as food stamps, as well as the poverty rate and median household income. A comparison between the percentage of citizens estimated to be LILA in the census tract and the SNAP recipient percentages shows that SNAP is likely not meeting all of the needs identified by the USDA’s food access research. This table of data also shows gaps in food access information from the USDA for certain census tracts.

Further review of data for all tracts shows that there are a handful of tracts in the study area with gaps in existing USDA data. “Figure 5: Census Tracts Lacking Food Access Data” shows these tracts. Without this information, a complete picture of regional food access cannot be constructed.



A community garden in the City of Roanoke. Photo provided by LEAP.

Farming in the Study Area

A complete picture of farming in the study area can be found in the “Roanoke Local” Regional Food and Agriculture Report which was produced by LEAP for Local Food in December of 2016 on behalf of the then-existing RVARC Regional Local Food Planning Committee. An excerpt from page 9 of the report, the full text of which can be found in [Appendix C](#), clearly summarizes the state of agriculture in the Roanoke Valley.

...the majority of farms in the Roanoke Local region are very small (<\$2,500 in annual sales) and a large portion are 50-179 acres...As the average regional size farm is 164 acres and the average value of sales for regional farms is \$36,481... it seems the capacity exists to increase revenue among these small farms that currently have low annual sales.

Additional takeaways noted in this report include the following:

- 4.8 percent, or approximately \$180 million, of Virginia farm sales came from the Roanoke Valley in 2012
- The average value in sales for regional farmers was far behind the statewide average of \$81,540.
- Only 3.7 percent of government payments went to regional farms, while 9.5 percent of statewide acreage is located within the region
- Local farmers produced 2.5 times more livestock, poultry, and animal products than crops (in terms of sales value)

While statistics used in this report included information from Montgomery, Bedford, and Floyd Counties, the report still provides useful insight into the challenges farmers face in the region. Further information about LEAP’s studies into farming in the study area, as well as the studies of other organizations, are included within the [Existing Studies and Documents chapter](#).

Strengths in the Roanoke Valley

Roanoke Valley stakeholders have already done an immense amount of work around local food systems, much of it in the appendices of this document. A brief snapshot of the various organizations involved in food systems work and their programs is included in this section.

Farmer Education

There are several organizations actively engaged in farmer education and support within the region. Educational programs for farmers can have both economic and environmental benefits, allowing farmers to adopt more adaptable and sustainable cultivation methods. Organizations range from state-wide programs such as the Virginia Cooperative Extension and the Soil and Water Conservation Districts to organizations like Catawba Sustainability Center, which actively incubates small farm companies onsite and experiments with new crops and growing methods. Some organizations also focus on educating potential new farmers, including programs like 4-H and nonprofits like Apple Ridge Farm which focus on students in the K-12 age range, as well as university programs from Ferrum and Virginia Tech. There is a strong interest in farmer education and outreach, but many organizations struggle to obtain funding and to reach farmers. A list of organizations working on these challenges is below.

- Virginia Cooperative Extension Offices
- Catawba Sustainability Center
- Local Environmental Agriculture Project (LEAP)
- Soil and Water Conservation Districts
- Virginia Tech College of Agriculture Science and Civic Agriculture programs
- Ferrum College
- 4-H Club
- Future Farmers of America
- Apple Ridge Farm
- Virginia Association for Biological Farming

Consumer Education and Outreach

Many organizations provide cooking classes, gardening lessons, and other information in the Roanoke Valley. Cooking classes are especially important to this effort, as they teach people how to use the food that local farmers grow. A list of organizations that have engaged in these efforts is included below.

- Virginia Cooperative Extension Family Nutrition Services (Master Gardeners and Master Food Volunteers)
- Roanoke Local Foods Co+op
- Total Action Against Poverty
- United Way of Roanoke Valley, Healthy Roanoke Valley and its Healthy Start Collaborative
- YMCA programs at Gainsboro

At this time, there is no centralized advertising method for outreach to consumers, though several efforts have been pursued in the past, including the Roanoke Valley Locavore effort, mapping from the Regional Commission offices, and the recent DigLocal branding effort coordinated by LEAP and the VCE. Largely due to lack of coordinated funding, it has been difficult to create a unified brand and marketing campaign around local foods in the Roanoke region.

Food Access and Security

The information included in Figure 1 through Figure 4, show that food access and food security continue to be challenges despite many organizations working to address these issues. Nevertheless, some of the most coordination happens in this sphere of the food system. Food banks like Feeding Southwest Virginia serving local soup kitchens, programs like the SNAP match program at local farmer's markets, and studies such as the Food Access Assessment for the City of Roanoke and the Community Health Assessments are all examples of efforts to address food access and food security issues in the region. While it would be exhaustive to list all of the organizations working around food access both in regards to community health as well as through the lens of income inequality, it is important to note that there is a great deal of activity and momentum happening around these issues, and that any efforts to create new programs or organizations should build upon and supplement the existing momentum in the study area.

Local Food Markets

There are several ways to secure local food in the study area that are worth noting in this chapter, including farmers markets, Community Supported Agriculture (CSA), farm stands, restaurants and grocery retailers. CSAs, sometimes known as farm-shares, are a popular method of getting local food to consumers. CSAs can provide a direct purchasing opportunity (direct CSA) between a consumer and a specific farm, or can exist as an aggregate CSA, where another company or business works with farmers to aggregate crops to distribute to the consumer. CSAs in the area include those run by Seven Springs Farm, Thornfield Farm, and LEAP.



LEAP's Mobile Market. Photo provided by LEAP.

The Roanoke Co+op often carries at least some local products, and local farm companies such as Homestead Creamery have good traction in supermarkets and restaurants. Access to local food is limited in grocery stores, however, and most restaurants do not source locally unless it is a specific part of their branding (examples of this include Local Roots and River and Rail, among others). While expansion to supermarkets offers many challenges for local farmers, it is not impossible with the right community support structure. Securing funding for farm expansions or for an aggregating business has proven trying, however. This is a major hurdle for further development of the local food system.

The farmer's markets of the region are an example of coordinated efforts in the local food system on the part of tourism and economic development agencies. There are farmer's markets in almost every locality within the study area, with some localities, such as the City of Roanoke and Roanoke County, containing multiple market locations. The longest-running farmer's market is located in Downtown Roanoke, which has existed since 1882 and is considered a major attraction for visitors to the region. Farmer's markets also remain one of the major examples of regional coordination in the area, with market operators working to jointly apply for matching funding and coordinate events. While joint marketing of the region's farmer's markets does occur and certain higher profile markets are featured in tourism information, there are still opportunities for improvement.

Impacts of the Covid-19 Pandemic

In March of 2020, the Commonwealth of Virginia was placed under a stay-at-home order in the wake of growing concern over the Covid-19 pandemic. Since that time, economic uncertainty and increasing impacts on public health have meant that the Roanoke Valley, like many other areas, has seen increased food insecurity and breaks in food supply chains.

Regional Commission staff attended [“Planning for the Worst: What municipal food policy leaders are learning from the Covid-19 Pandemic”](#) in order to understand what other communities are doing to adapt to these issues. Organized by the Johns Hopkins Center for a Liveable Future, this webinar brought panelists from Baltimore, Indianapolis, Austin, and New Haven together to present on impacts from the pandemic and how they have adapted in the months since March. Overwhelmingly, participants cited the difficulty of getting food to food insecure populations. Some addressed this via partnerships to deliver food directly to food insecure households. Some addressed this via outdoor, local-government-operated food hubs, or through offering curbside pickup options for WIC and SNAP users. These programs offer potential both during the pandemic and in the long term, but can be expensive. They require staff and funding support that may be hard to come by, and broad collaboration.

While Virginia’s economy has reopened, the pandemic is not over and projections for the future economic stability of the Commonwealth, as well as the broader nation, are still uncertain. While, as one panelist noted, crisis creates momentum to solve issues, crisis also makes visible issues which were previously invisible, and can exacerbate underlying weaknesses, putting more people at risk of food insecurity. Empty supermarket aisles have shown clearly our local vulnerability to national and international problems which affect the food chain and logistics chains for other goods. In light of this information, the recommendations in this report are more important than ever.

Processing and Distribution

Processing and distribution of food includes small facilities like community kitchens as well as larger factory facilities for processing and packaging and food hubs. Further discussion of the concept of a food hub can be found in the next chapter. Both LEAP and Feeding Southwest Virginia operate community kitchens, which can be used as small business incubators and limited processing facilities for produce and other items to produce cooked products such as meals for home delivery.

While smaller facilities exist in the Roanoke area, the region lacks a community canner, community slaughterhouse, or similar large-scale processing facility. Roanoke Fruit and Produce is a food aggregating company that operates in the City of Roanoke and distributes fresh produce and pre-cut produce to surrounding restaurants and institutions. Some of their product is local, but not all. Farmers desiring to raise meat or to add value to their products by processing them into canned products still need to travel outside the region to see their products processed.



Carrots processed for supermarket sale. Photo provided by the City of Roanoke.

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EXISTING STUDIES AND DOCUMENTS

A proactive approach to the food system of the Roanoke Valley remains a high priority for many of our citizens. It is therefore no surprise that many documents describing the existing food system and needed improvements already exist for parts of the planning area.

Locality Studies and Plans

Two localities have produced documents which are particularly relevant to this plan. These are Botetourt and Franklin Counties, both characterized by changing communities where agriculture has traditionally played a large role in the economy and way of life. Increasing development puts pressure on farmers and changes the rural landscape. Preserving farmland and farm occupations are the primary goals of these documents.

Agricultural Development Strategic Plan for Franklin County

Produced in December 2013, the Agricultural Development Strategic Plan for Franklin County, Virginia (Franklin Agricultural Plan) is one of the older documents discussed in this chapter. Developed as a way to create a unified vision for supporting the long-term growth of agriculture in the county, most of the recommendations discussed are focused on the locality itself. Recommendations are organized according to theme, and include a section devoted entirely to regionalism, of particular interest to this document. While collaboration with West Piedmont Planning District Commission is mentioned, the Roanoke Valley - Alleghany Regional Commission is not. This is likely because the Regional Commission was not working on local food issues at the time the Franklin Agricultural Plan was written.

Of particular interest in the Franklin Agricultural Plan is the focus on education. Consumer education and farmer education are repeated areas of focus in many of the plans and documents produced for the Region. Franklin County is uniquely suited to address some of these issues for two reasons: the public school system in Franklin County is actively engaged in promoting local and healthy food options; and the local Ferrum College continues to be a leader in agricultural education in the area.

An additional focus of these recommendations, agritourism, will be discussed further in later sections of this document. However, it is important to note that the Franklin County Plan ties agritourism to public awareness and consumer education, seeing the promotion of agritourism as an opportunity to also bring local food consumption into the foreground of the public consciousness.

Lastly, the Franklin Agricultural Plan includes recommendations to establish an Agricultural Development Board and a key staff position of Agricultural Development Director to advocate on behalf of agricultural providers.

Botetourt County Agriculture Development Strategic Plan

The Botetourt County Agriculture Development Strategic Plan (Botetourt Agriculture Plan) was finalized in November 2015.

While many of the recommendations found in this plan mirror those in the Franklin Agricultural Plan, including the need for an Agricultural Development Board or similar organization, a devoted agriculture coordinator position amongst Botetourt staff, and additional farmer education opportunities, the plan also includes a discussion of agriculture technology innovation that is unique amongst other documents in the region. Monetizing agricultural research and new agricultural innovations locally fits into the broader conversation regarding economic development in the region.

Additionally, the Botetourt Agriculture Plan recommends a review of taxes and regulatory structures for the county. Some review of the zoning ordinance has already been undertaken, but additional reviews will likely be needed to achieve the full breadth of the changes recommended in the plan.

Lastly, the plan discusses the importance of forest-suitable crops in managed conservation areas of the county, such as mushrooms and shade-preferring herbs like ginseng and goldenseal. This is important because large swathes of the county are not suitable to more traditional agriculture models, due to underlying topography.



Chickens on a local farm.

Documents Produced by Partner Organizations

LEAP Documents and Research Efforts

LEAP is one of the promoters of the conversation regarding local and regional food systems and food advocacy in the Roanoke Valley. Relevant contributions are included below. Further discussion of LEAP programs will be available later in this document.

“Roanoke Local” Regional Food and Agriculture Report

The Roanoke Local Report was developed by Liza Dawson for LEAP for Local Food, a 501(c)3 nonprofit, with some assistance from staff of the Regional Commission. It was officially published in December of 2016. This report covers what is defined as the Roanoke Local foodshed, a geographic area including several of the Regional Commission’s member localities as well as three localities situated within other regions. The list of localities is included below. Localities outside of the Regional Commission’s jurisdiction are identified with an asterisk.

- City of Roanoke
- City of Salem
- Roanoke County
- Botetourt County
- Craig County
- Franklin County
- Floyd County*
- Montgomery County*
- Bedford County*

While the report is extensive and offers several useful recommendations, it has not been formally adopted by the Regional Commission or any member locality, nor has it received much attention beyond being listed on the Regional Commission website. Some of the highlights from the report’s recommendations include:

1. A focus on food production and farmer outreach and education, including the need for low-cost Good Agricultural Practices (GAP) certification trainings for farmers, financial assistance, business training, and other educational opportunities for farmers.
2. A need for consumer education to encourage purchases of locally produced food, including a regional branding and marketing effort and a virtual local food guide to make products easily visible to the consumer in the marketplace.
3. The provision of needed marketplace infrastructure in the form of a regional food aggregator and USDA approved food processing or slaughter facilities.
4. Discussion of a local food council or working group.
5. The Farmer Listening Sessions, which will be discussed further below.

Planning for a Food Hub

In 2019, LEAP commissioned Downstream Strategies to study the feasibility of a food hub facility following conversations at the Farmer Listening Sessions and meetings of a small group of stakeholders coordinated by the Regional Commission. This report, “Market analysis in support of a Roanoke food hub feasibility,” contains proprietary information for LEAP. However, general takeaways for this report are summarized here.

Downstream Strategies looked at existing local food supply that could be aggregated in a business-to-business model such as a food processing facility. The study also attempted to estimate demand for this service. In short, this market analysis found that while there was interest in a food hub in the area, there is currently not sufficient supply to meet the needs of such a service and make it profitable.

In order to make a food hub viable for the Roanoke Valley, it will be important to expand programs supporting local farmers and to collect better data about farming capacity. Suggestions for how to achieve these goals are included in this plan.

The recommendations identified in the Roanoke Local Report are all necessary for a healthy food system in the Roanoke Valley. Strategies for achieving these goals will be further discussed later in this document. The full “Roanoke Local” report is included in [Appendix C](#).

Farmer Listening Sessions

As a result of the “Roanoke Local” report, LEAP undertook Farmer Listening Sessions in February and March of 2017. These sessions were held in Roanoke County, Franklin County, and Montgomery County, and were well-attended with forty-five participants total. The top three recommendations from these discussions included consumer education and regional branding, improved food system infrastructure, and cooperative purchasing. However, numerous other recommendations were identified, and Informed this document.

Three action teams were formed to address each of the top three recommendations. The Marketing and Consumer Education Action Team has been largely spearheaded by the Virginia Cooperative Extension, while the Food Hub Action Team is discussed earlier in this text. The Cooperative Structure Action Team was maintained by LEAP.

Catawba Sustainability Center

The Catawba Sustainability Center (CSC) is a 377-acre farm located in the northern part of Roanoke County and owned and operated by Virginia Tech. In 2015, Roanoke County and the Catawba Sustainability Center joined together to commission a report entitled Linking the Catawba Sustainability Center to the Local Food System. This report covers a study area similar to the one identified in the Roanoke Local document, including Botetourt County, Craig County, Montgomery County, Roanoke County, the City of Roanoke, and the City of Salem. Franklin County is excluded from this report, as are Floyd and Bedford Counties.

This report largely makes recommendations targeted to the CSC. However, many of the ways the CSC could support the food system mirror larger food system gaps previously identified elsewhere. Among these is the need for better services to incubate and support farming ventures, and improving networks of communication between farmers and between farmers and other entities such as distributors and consumers.

Healthy Roanoke Valley

Healthy Roanoke Valley is a coalition of more than 50 organizations within the Roanoke Valley. Every three years, Carilion, one of the key partners in this coalition and a leading provider of healthcare in the area, produces in conjunction with this group regional Community Health Assessments (CHAs). There are two CHNAs completed for the study area, one which covers [Franklin County](#) and one which covers the [Roanoke Valley](#). The CHNA for 2018 continues to identify poor diet as a key issue for improvement in the Roanoke Valley. Poverty and access to transportation, two key intersections discussed in studies of food deserts and food security, are additionally identified as key issues in addressing health in the Valley. It is clear that work in these areas is still needed despite the many programs attempting to address this issue.

Documents from State Agencies

State efforts to support and promote a healthy food system include some long-standing programs, such as the Virginia Cooperative Extension, but also include some recent documents and initiatives such as the forming of a Food Desert Taskforce and establishment of the Virginia Food System Council. The latter of these, the Virginia Food System Council, continues to be active and works to support a sustainable food system. This organization is a valuable resource to local and regional food planning efforts.

Situation Analysis Report for Roanoke County/Roanoke and Salem

The Virginia Cooperative Extension last produced [the Situation Analysis Report](#) in 2013. The most interesting information from the report is in the Focus Group Sessions outlined in the appendices. Themes from these sessions identify local food as an important part of strengthening the community fabric for the Roanoke Valley, and as a tool to help address health issues identified in this report and elsewhere. The need for farmer support was also discussed in the report, echoing takeaways from other report and studies surveyed in this document.

Virginia Farm to Table Strategic Plan

Produced in 2011, the [Virginia Farm to Table Strategic Plan](#) was a collaborative effort by the Virginia Food System Council, the Virginia Cooperative Extension (VCE) and the University of Virginia (UVA). A section of the plan serves as a plan of action for the Virginia Food System Council. Recommendations to the Plan of Action include the need to help producers overcome regulatory barriers to the sale of food in state and local institutions; to improve the availability of information to producers and serve as a networking hub; to successfully market Virginia-grown products; and to improve education opportunities for both farmers and consumers at the institutional level.

The plan additionally makes several recommendations along key topic areas, including Business and Production Management; Market Development; Food System Planning, Management, and Policy; and Food Security, Food Safety, Diet and Health. The recommendations identified are comprehensive, and, if implemented, would provide needed support for food system activities across the state.

Food Deserts in Virginia, Recommendations from the Virginia Food Policy Task-force

In 2012, the General Assembly became aware of the issue of food deserts in Virginia. Resolution 646 was adopted in 2013, commissioning Virginia Tech and Virginia State University to conduct this study, which was published officially in 2014. The study showed that the state of Virginia had a low food-access rate of 17.8 percent, compared with the national rate of 7.3 percent.

Recommendations to address the food security of Virginia residents include but are not limited to: interfacing with the Virginia Food System Council; expanding grant opportunities and funding for innovative programs such as community gardens, mobile markets, and Healthy Cornerstore initiatives; expand VCE food education programs; and create government incentives at both the state and local level to address this issue in the private sector, including small business funding and tax incentives.

Missing Information in Published Documents

While much of the documentation currently existing in the Roanoke Valley focuses on health, food access, and producers and agriculture as a practice, there are still important elements missing in the existing documentation. For example discussion of food waste and its role in a healthy food system is rarely mentioned. Environmental impacts to the food system are excluded from much of the language of these documents, though there are some references to open space and preservation of viewsheds.

Additionally, though much work has been done on evaluating food security in the area and on evaluating the needs of farmers and producers, very rarely does any document connect these two ideas at the local or regional level. Likewise, though a regional view of the food system is provided, discussion of how to address the issues noted at the government level is limited. Many of the plans and studies in question call for the same improvements to food system infrastructure, without a regional perspective on where these improvements could best serve the food system.

In short, while these documents provide a valuable overview of separate parts of the food system, no single document provides a clear, comprehensive vision for the Roanoke Valley. This document, the Roanoke Valley Local Food Plan, will seek to lay the groundwork for this vision.



PUBLIC INPUT

This plan required robust outreach to the public to inform recommendations. Three separate survey efforts were conducted early in the process, including a Farmer Survey distributed through LEAP and VCE partners, a Consumer Survey conducted at regional events and online, and Stakeholder Interviews conducted by Regional Commission staff. These efforts were undertaken in order to form a better picture of local food efforts in the Roanoke Valley and how these efforts could be improved. A summary of results from each effort is included below.

Farmer Needs

The Farmer Survey was designed to complement data compiled through LEAP’s Farmer Listening Sessions. A summary of the farmer survey is included in [Appendix A](#). The survey was open from January to March 2019 and was distributed in person at farmer trainings conducted by the Virginia Cooperative Extension and LEAP. It was also available online. Twenty-six total responses were collected.

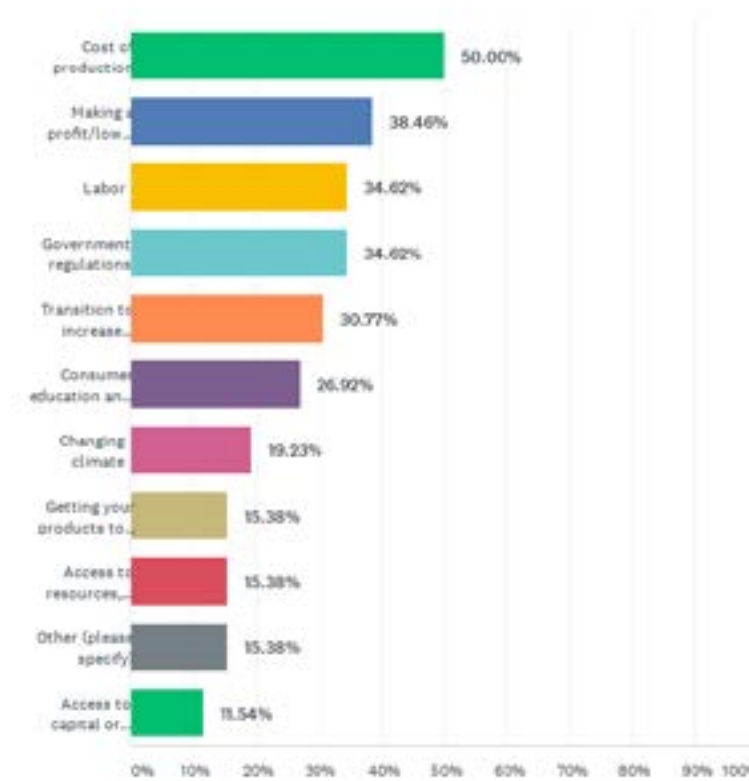
Fifty percent of farmers who responded to the survey grew vegetables and small fruit. Most farmers sold their products within 100 miles of their farm.

The most pertinent takeaways from this survey concern challenges and solutions for farmers. The top challenges for farmers were (1) the cost of production (2) making a profit and (3) government regulations and labor (tied). With the exception of government regulations, these challenges are directly related to profit margins for farm operations. These responses parallel what was heard in the Farmer Listening Sessions undertaken by LEAP in 2016, where profitability was the second most important issue identified at all three sessions. While other issues were raised at these sessions – such as accessibility to markets, marketing, and consumer education -- profitability remains a key concern for farmers, one from which many other concerns stem.

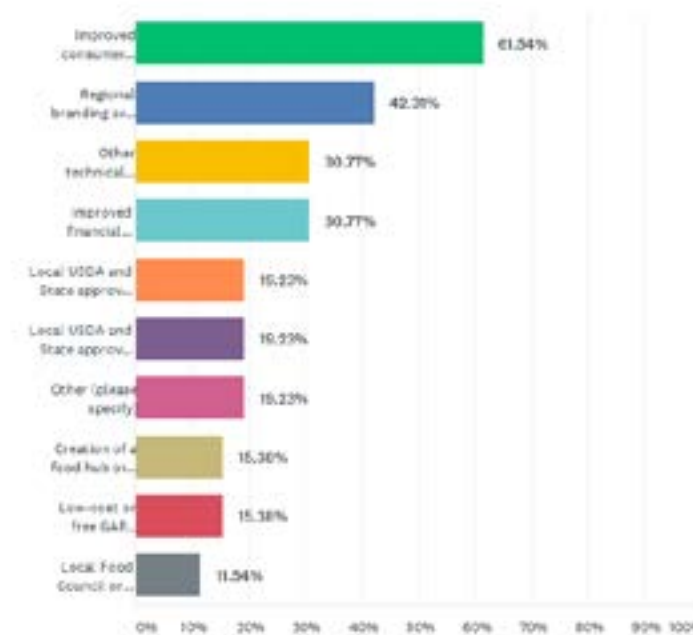
Top solutions proposed by respondents included: improved consumer education; regional branding or cooperative efforts; improved financial assistance or outreach to beginning farmers; and other technical assistance or business training. These solutions indicate that the burden of the farmer is not only in learning to farm, but in learning to run a business that will remain profitable and reach its customers. Many of the recommendations included in the recommendations section focus on providing support structures for farmers to alleviate some of this pressure. The top solution identified in the Farmer Listening Sessions was consumer education and regional branding.

Figure 6: Questions from the Farmer Survey

Q1 What are your three biggest challenges as a food producer? (Please select 3 options.)



Q2 What are the top three solutions to address the challenges you face? (Please select 3 options.)



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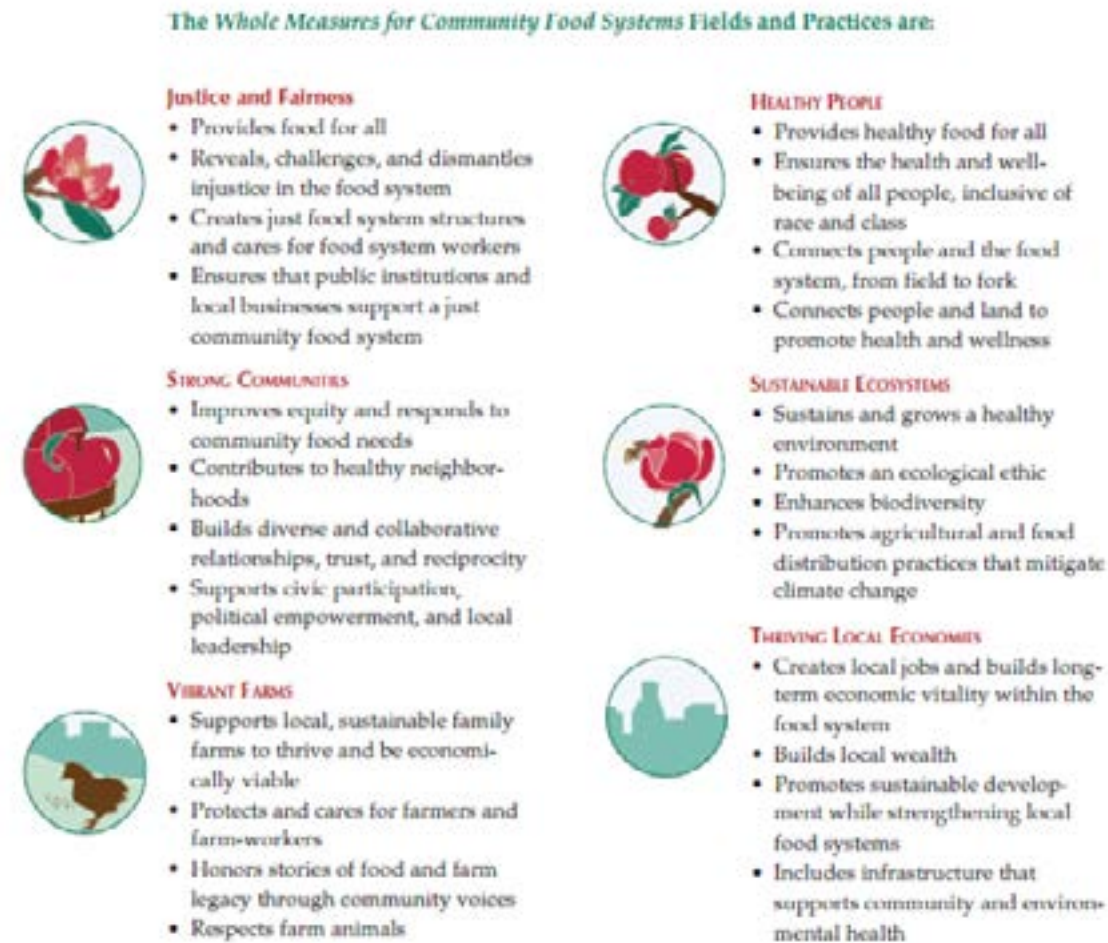


A VISION FOR THE
FUTURE

In order to organize the recommendations in this chapter, the steering used the [Whole Measures for Community Food Systems](#) framework created by the Community Food Security Coalition of Portland, Oregon. This framework has six categories which inspire and inform recommendations for a local food system.

Recommendations under each category are organized around specific themes identified by the steering committee. Recommendations are made to the Regional Commission, local governments, and stakeholders as indicated.

Figure 8: Categories from the Whole Measures for Community Food Systems Framework



Justice and Fairness

The category of Justice and Fairness speaks directly to issues of equity, the right of workers to a safe and healthy working environment, food access and food security. Because many food system workers also face food access issues, recommendations within this section may parallel recommendations made in other sections.

1. Improving knowledge of food access issues.

One of the concerns of this document is the lack of a thorough food access study for the Roanoke Valley region. While many organizations have done studies on parts of the Roanoke Valley region or collected data for some aspects of food insecurity in the region, a more comprehensive look at this issue is needed.

Recommendations to RVARC and Member Local Governments:

- Complete a regional food access assessment using data from the USDA Food Access mapping and other sources as appropriate.
- Support regular updates of the USDA Food Access data and ensure that data is distributed locally after each update.
- Coordinate the Community Health Assessment data between localities.

2. Food access and local governments.

The role of local governments in addressing food system issues is a theme that this plan hopes to address directly. The Regional Commission exists to support local governments in pursuing projects that are regional in nature or which require specific expertise or staff time not currently available to localities.

Recommendations to RVARC and Member Local Governments:

- Include improving food access as a priority in all locality Comprehensive Plans. Review of local government Comprehensive Plans could be provided by the Regional Commission.
- Review local government zoning codes to allow for uses which could address food system issues by enabling farming, community gardens, farm stands, farmers markets, and other food businesses where appropriate.
- Support improved transit programs to allow for better mobility for community members who rely on transit as their primary means of transportation.
- Incorporate food access into regional and local transportation planning.

Recommendations for Community Stakeholders in Partnership with Government Agencies:

- Work with local school systems to improve and expand existing food access programming, including backpack programs and free lunch programs.
- Work with local school systems to allow for food mobiles or CSA pickups on site to improve local food access options for parents.
- Work with local school systems to improve and expand farm-to-school procurement and educational programming.
- Encourage and support the creation and maintenance of community gardens in urban and suburban neighborhoods.

3. Food access as an economic issue.

Food access is directly tied not only to the locations of grocery stores and access to transportation, but also to income and job availability. While many of these recommendations overlap with recommendations in the Thriving Local Economies section, they have been included in recognition of this overlap.

Recommendations for the Regional Commission, Local Governments, and Stakeholders:

- Support workplace development programs in the region to expand employment options for vulnerable communities.
- Encourage policies that support well-paying job creation within the region, including policies which improve income for food system workers.
- Support nutrition incentive programs that help make fresh produce affordable for people with limited food budgets, including but not limited to SNAP, Medicaid, and CHIP.

Strong Communities

This category looks at the use of food to create strong communities, including trust, respect, and transparency. The recommendations in this section focus on increasing connection and communication between existing programs and food system stakeholders and governing organizations.

1. Improving regional efforts.

One of the major themes of discussion was the need for better integration of efforts across stakeholders and jurisdictions. The Regional Commission is uniquely suited to stepping into this role and helping to facilitate these efforts, but should not be alone in pursuing more integrated programs and partnerships.

Recommendations for the Regional Commission and local governments:

- Support and participate in a staffed Regional Food System Council that will share knowledge and address cross-sector and inter-locality food system issues.
- Perform a food-focused zoning code and Comprehensive Plan review of all localities within the study area as recommended in the Justice and Fairness category.
- Increase funding sources for local food-focused programming as available.
- Promote existing programs such as farmer's markets, local farms, Virginia Cooperative Extension classes, and other programming, events, and attractions through regional and local community and economic development newsletters and social media sites.
- Work with community stakeholders to increase the accessibility of food education classes and events by providing meeting spaces for reduced or waived use costs.



The City of Salem Farmers Market. Photo provided by City of Salem.

2. Support and broaden existing programs

Existing programs within the study area are largely managed by community stakeholders, including several large and small nonprofits and institutions referred to in previous chapters of this document. While local governments should be proactive in supporting these programs through funding sources and seeking a seat at the table, the majority of these efforts are undertaken by existing community stakeholders.

Recommendations for community stakeholders:

- Support and participate in a staffed Regional Food System Council to serve as a location for sharing knowledge and addressing issues.
- Support and promote farmer's markets by assisting with the initiative where appropriate.
- Support and promote food education programs through VCE and other community groups.
- Support community gardens as dynamic communal spaces as well as places of food production by assisting with garden funding and operation.
- Continue to support community cooking classes and other similar community activities within accessible community contexts, e.g. for free or reduced costs and in locations served by transit or which are ADA accessible.

Vibrant Farms

This category focuses on local farms. It includes efforts to assist farmers in pursuing resilient economic, environmental, and social practices. Supporting our local farmers and the institutions that support them is imperative to a healthy and robust food system.

1. Collecting better data about our regional farms.

One of the biggest needs that emerged in conversations about local farming was a lack of localized data regarding farming efforts in our region. Collecting this data will require wide-ranging partnerships between community stakeholders, local governments, the Regional Commission, and citizens working in the food system.

Recommendations for the Regional Commission and local governments:

- In coordination with VCE, Regional Food System Council and other partners, conduct a regional agriculture census of active producers, processing facilities and infrastructure to gather information including demographics, production capability, costs of operations, existing processing facilities and infrastructure, available farmland, cost of farmland, and other needed data. This data will be used to plan for regional food system resiliency.
- Conduct a study of a possible farmer land lease program, assessing the viability of using county lands as farmland in cases where the locality owns large tracts which are suitable.

2. Keeping farmland for farm use.

One of the biggest challenges facing farmers is the issue of finding and keeping farmland. Generational turnover from an aging farmer population, increased development pressures from urban sprawl, and high land prices can keep prime farmland from being used for producing food.

Recommendations for the Regional Commission and local governments:

- Support conservation easements by including conservation goals in Comprehensive Plans.
- Provide and support tax incentives for agriculture use of land.
- Include farmers and farm businesses on distribution lists for small business assistance education and funds.

3. Support and expand existing farm-focused programs.

There are numerous existing farm-focused programs in the Roanoke Valley region, including programs which provide farm incubation opportunities, farmer education, and some limited regional marketing. Supporting and improving the reach of these programs will be an important step in supporting local farm businesses.

Recommendations for the Regional Commission, local governments, and regional stakeholders:

- Continue to support and promote farm incubation and education efforts through organizations like Catawba Sustainability Center.
- Promote and support regional marketing campaigns for food and farm-based businesses.

Thriving Local Economies

Thriving local economies are important to food access, to farmers' ability to sell produce, and to the health and well-being of citizens and communities. This category will deal directly with the business of buying and selling food.

1. Getting food to consumers.

Getting food to consumers requires first making sure that consumers have economic access to food and second improving the distribution of local food products.

Recommendations for Regional Commission and local governments:

- Encourage policies that support well-paying job creation within the region, including policies which improve income for food system workers.
- Support nutrition incentive programs that help make fresh produce affordable for people with limited food budgets, including but not limited to SNAP, Medicaid, and CHIP.
- Support projects which improve processing and packaging infrastructure for local farms such as a food hub, cannery, or meat processing facility. Provide technical assistance and funding as available.
- Support regional connectivity between urban and rural communities in infrastructure systems and economic systems, including transportation systems.
- Audit locality-managed farmers markets and determine if there are barriers for disabled or elderly access.
- Support improved transit programs to allow transit-dependent community members to access farmer's markets.
- Recommendations for community stakeholders:
- Consider ways to make local products more accessible to consumers, including getting local food into grocery stores.
- Audit the accessibility of stakeholder-managed farmers markets and determine if there are barriers for disabled or elderly access.

2. Centering our regional farm identity.

One of the major concerns of the steering committee was the exclusion of farms from regional branding efforts. While outdoor recreation and scenic beauty are considered important attractions to the Roanoke Valley region, farms and agritourism are less often featured in advertising. Constructing a regional identity that includes rural and urban farmers as a part of our scenic landscape was considered imperative to improving the regional food system.

Recommendations for the Regional Commission and local governments:

- Promote the value of farms for economic development in our area and as part of our regional identity. Emphasize the role of agriculture as part of a well-rounded outdoor community.
- Improve marketing of local food and agritourism opportunities and participate in existing marketing initiatives such as Virginia Farmer's Market Week.
- Commit localities to purchasing local food where available to support local farmers and food businesses.

Healthy People

One of the most important outcomes of a healthy food system is healthy people. Health is a priority for studies such as the Community Health Assessments, conducted by regional stakeholders to capture health needs in the study area. One of the primary indicators for health is income. The CHAs also collect information on food security and food access.

1. Support marginalized communities.

Supporting marginalized communities was a key theme that emerged under this topic. Public input found that consumers expressed concern about the physical accessibility of local food purchasing sites and grocery stores, and about the cost of food sourced locally.

Recommendations for the Regional Commission and local governments:

- Audit farmers markets and grocery stores for accessibility by bicycle and bus, among other forms of transportation.
- Recognize the key relationship of health to income in the Roanoke Valley, and work to improve income for all citizens.
- Support foodbanks and other agencies that are ensuring that healthy food reaches vulnerable populations.
- Support nutrition incentive programs that help make fresh produce affordable for people with limited food budgets, including but not limited to SNAP, Medicaid, and CHIP.

2. Continue emphasizing education and outreach.

Building a better system alone will not ensure that local, healthy food products get to citizens. A key element of a food system that is accessible to everyone is education and outreach.

Recommendations for the Regional Commission and local governments:

- Continue to support local educational and outreach programs. Make sure that these programs are accessible to people who have limited income and limited transportation.
- Promote existing programs such as farmer's markets, local farms, Virginia Cooperative Extension classes, and other programming, events, and attractions through regional and local community and economic development newsletters and social media sites.

Recommendations for community stakeholders:

- Partner with schools to continue to develop educational programs for healthy eating and local food.
- Continue to include food access and nutrition as factors for exploration in the CHAs for the study area.



Cooking in a community space. Photo provided by LEAP.

Sustainable Ecosystems

Growing food is directly tied to the environment. Many farming practices can negatively impact soil and water quality, and changing climate can negatively impact farmer yields and the costs of running a successful business. No resilient food system can exist without taking the surrounding ecosystem into account.

1. Improve regional data on the ecological benefits and burdens of local farming.

One of the major questions raised by the steering committee arose around the ecological benefits of farming versus other land uses.

Recommendation for the Regional Commission, local governments, and community stakeholders:

- Conduct a regional study on the ecological benefits of farmlands remaining in farm use versus being developed for other uses. This may be part of the regional Agricultural Census.
- Collect information about what percentage of the regional food supply is produced locally and determine the ecological benefits of shorter supply chains as applied to the region. This may be part of the regional Agricultural Census.

2. Support research and education about alternative and adaptive agriculture.

Farming can have negative impacts upon soil and water quality. However, innovations in farming methods and best management practices can minimize or eliminate many of these negative impacts.

Recommendations for the Regional Commission, and local governments:

- Support programs through organizations such as the Catawba Sustainability Center and VCE to experiment with and educate farmers and the broader community on sustainable agriculture practices.
- Support SWCD, VCE and Catawba Sustainability Center in educating farmers and the broader community on alternative crops that may be more adaptive to our changing climate.

Recommendations for community stakeholders:

- Partner with Regional Commission and locality staff actively working in water quality efforts such as the Chesapeake Bay Watershed Improvement Program to implement best management practices.

3. Planning for food waste.

The final part of the food cycle is disposal, and disposal of waste continues to be a challenge for the region. Recycling and composting are best practices for sustainable ecosystems, and can have added benefits of reducing imported fertilizers on farms if managed correctly.

Recommendations for the Regional Commission and local governments.

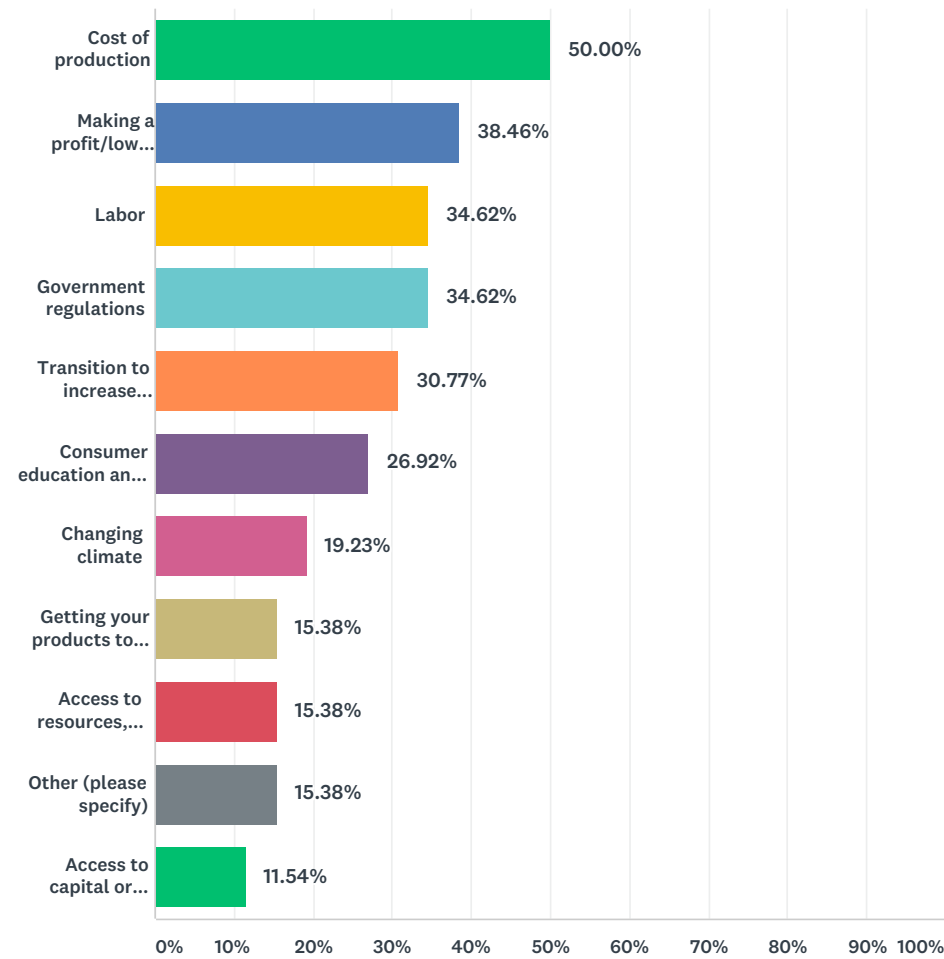
- Study models for reusable and recyclable food packaging in regional facilities, using examples such as Homestead Creamery as inspiration.
- Investigate the viability of a regional composting program or of individual locality composting programs as part of waste management services.

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APPENDIX A: SURVEY QUESTIONS AND RESPONSES

Q1 What are your three biggest challenges as a food producer? (Please select 3 options.)

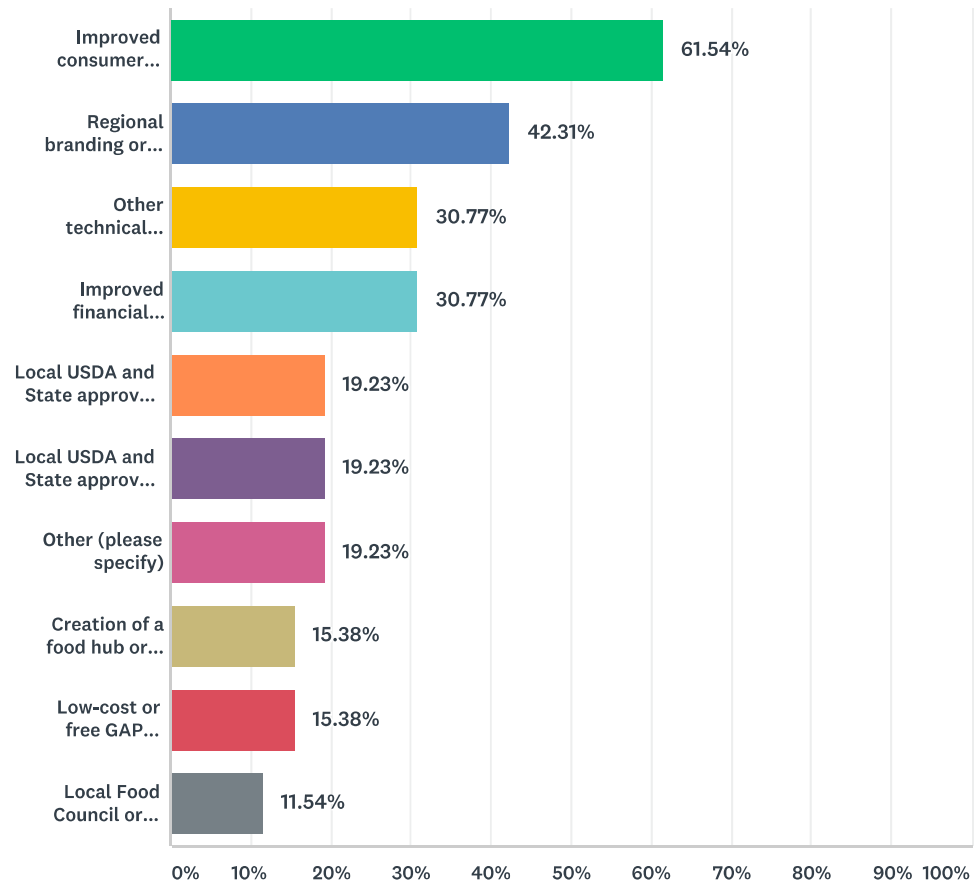
Answered: 26 Skipped: 0



ANSWER CHOICES	RESPONSES	
Cost of production	50.00%	13
Making a profit/low prices for your product	38.46%	10
Labor	34.62%	9
Government regulations	34.62%	9
Transition to increase production/Scaling up	30.77%	8
Consumer education and awareness	26.92%	7
Changing climate	19.23%	5
Getting your products to market	15.38%	4
Access to resources, education, and technical training	15.38%	4

Q2 What are the top three solutions to address the challenges you face? (Please select 3 options.)

Answered: 26 Skipped: 0



ANSWER CHOICES	RESPONSES	
Improved consumer education	61.54%	16
Regional branding or cooperative marketing	42.31%	11
Other technical assistance or business training	30.77%	8
Improved financial assistance or outreach to beginning farmers	30.77%	8
Local USDA and State approved produce processing facility	19.23%	5
Local USDA and State approved slaughterhouse	19.23%	5
Other (please specify)	19.23%	5
Creation of a food hub or other regional local food aggregator	15.38%	4
Low-cost or free GAP certification or other trainings	15.38%	4
Local Food Council or other similar advocacy group	11.54%	3

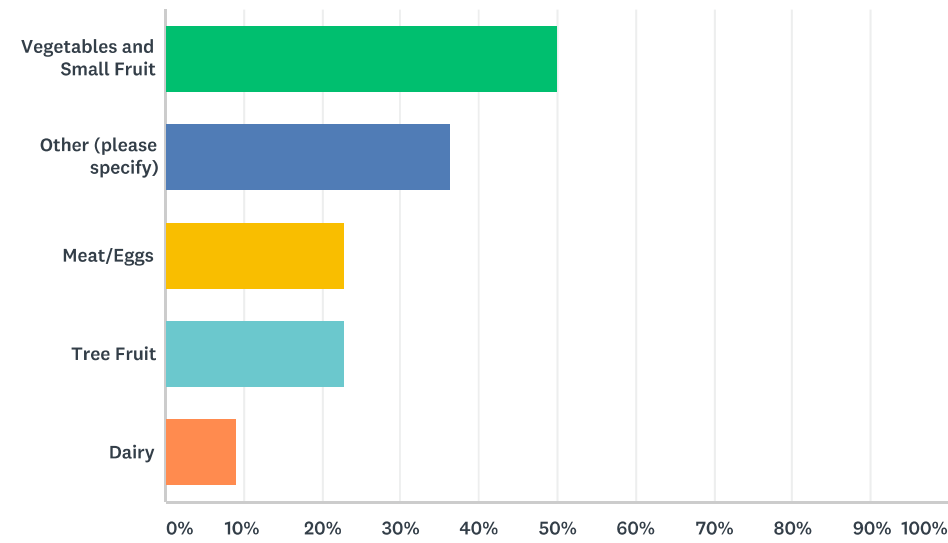
Q3: How can local government support farmers and producers?

Answered 15
Skipped 11

Respondents	Responses
1	have programs and seminars that work with farmers' schedules. help with consumer education/awareness. (suggestion on back of paper: have other days a week for meetings: not Saturdays.)
2	as individuals purchasing
3	stay out of it
4	realize that produce production is as valid and profitable as animal production
5	n/a
6	see taxation comment above
7	as individuals purchasing
8	stop subsidizing conventional ag.
9	provide a site that clearly indicates required documents/certificates/etc and resources for growers based on location. example: business and growers licenses insurance
10	providing places to sell products and standards that consumers want
11	mostly work with farms by staying out of the way
12	make sure all new programs are the same as other areas within the region
13	financial assistance
14	help with marketing
15	hands on workshops

Q4 What kind of farming do you do?

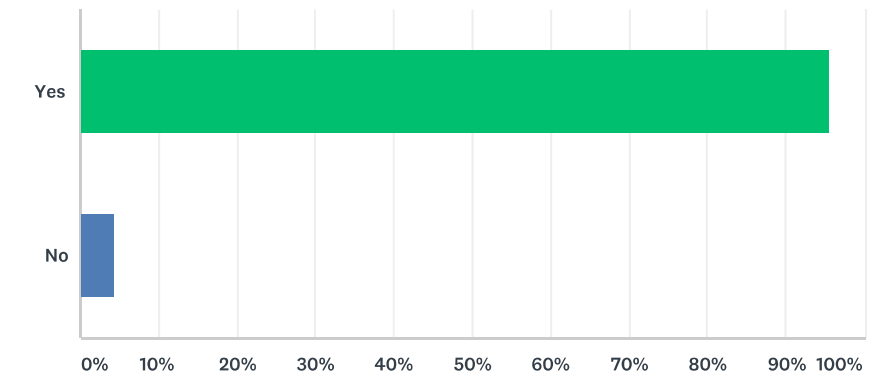
Answered: 22 Skipped: 4



ANSWER CHOICES	RESPONSES	
Vegetables and Small Fruit	50.00%	11
Other (please specify)	36.36%	8
Meat/Eggs	22.73%	5
Tree Fruit	22.73%	5
Dairy	9.09%	2
Total Respondents: 22		

Q5 Do you sell any product locally (within 100 miles)?

Answered: 23 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	95.65%	22
No	4.35%	1
TOTAL		23

Q6 Would you be interested in participating further in this planning process? If so, please provide contact information. (Optional)

Q7 Please provide your zip code.

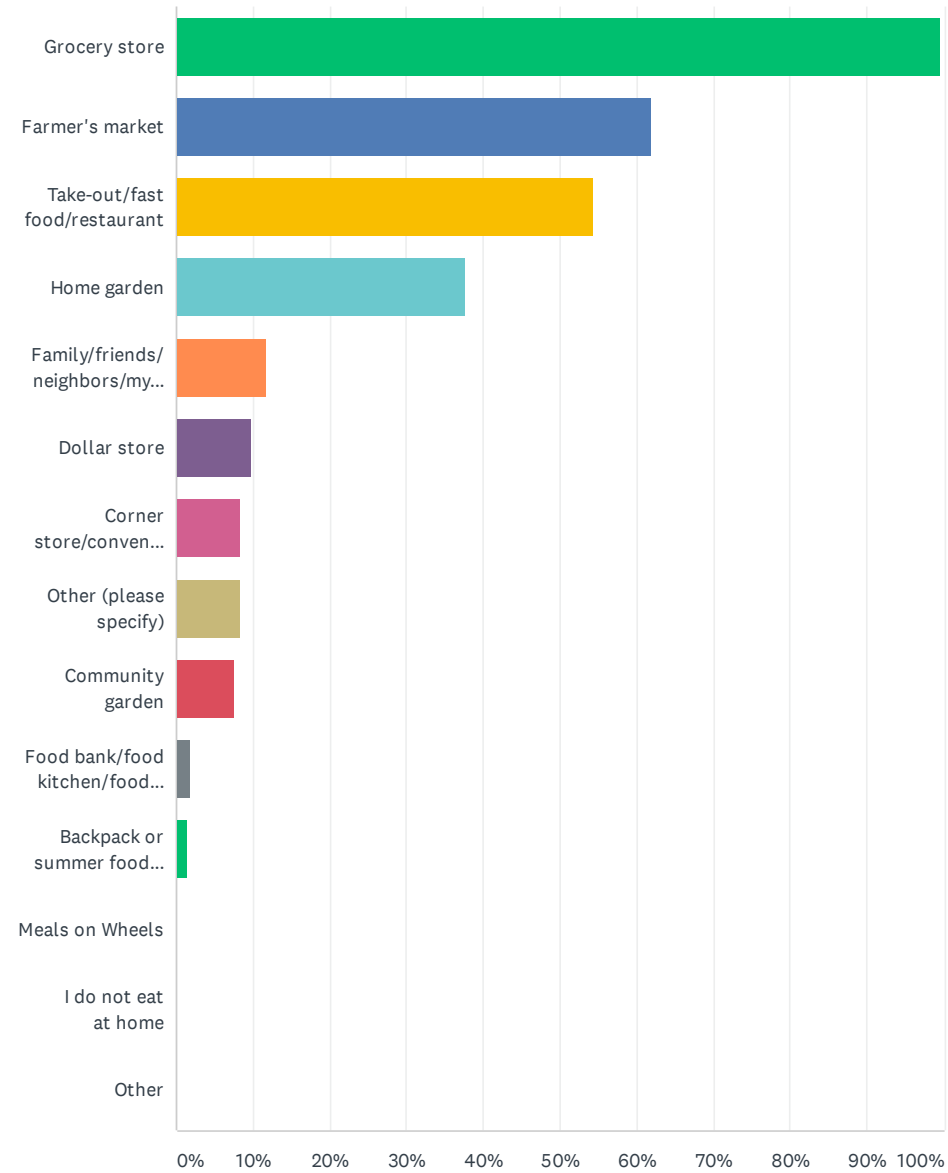
Answered: 6 Skipped: 20

Answered: 12 Skipped: 14

ANSWER CHOICES	RESPONSES	
Name	100.00%	6
Company	83.33%	5
Address	0.00%	0
Address 2	0.00%	0
City/Town	0.00%	0
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	83.33%	5
Phone Number	83.33%	5

Q1 Where do you get the food that you eat at home? (Check all that apply)

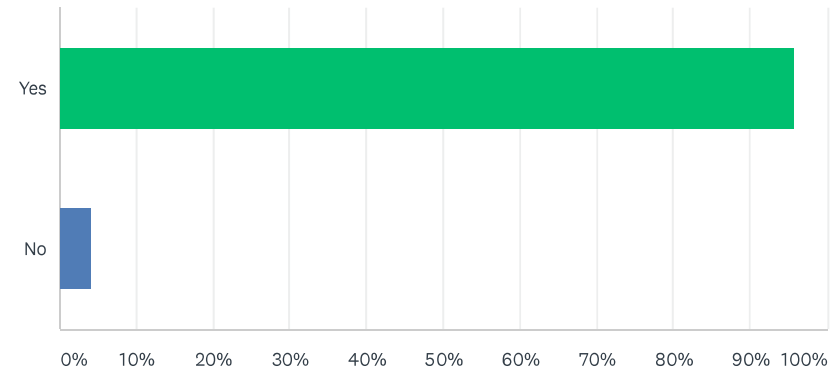
Answered: 213 Skipped: 1



ANSWER CHOICES	RESPONSES
Grocery store	99.53% 212
Farmer's market	61.97% 132
Take-out/fast food/restaurant	54.46% 116
Home garden	37.56% 80
Family/friends/neighbors/my church	11.74% 25
Dollar store	9.86% 21
Corner store/convenience store/gas station	8.45% 18
Other (please specify)	8.45% 18
Community garden	7.51% 16
Food bank/food kitchen/food pantry	1.88% 4
Backpack or summer food programs	1.41% 3
Meals on Wheels	0.00% 0
I do not eat at home	0.00% 0
Other	0.00% 0
Total Respondents: 213	

Q2 Do you ever buy local food (food grown within 100 miles)?

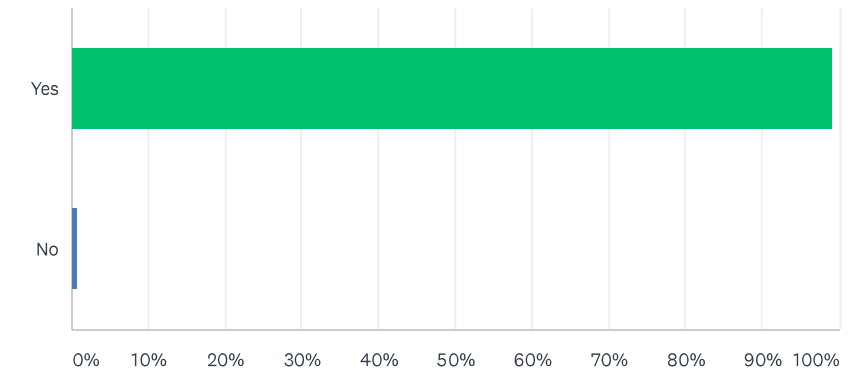
Answered: 213 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	95.77%	204
No	4.23%	9
TOTAL		213

Q3 Would you like to consume more local food?

Answered: 213 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	99.06%	211
No	0.94%	2
TOTAL		213

Q4 What would make choosing local food easier for you?

Answered: 213 Skipped: 1

#	RESPONSES	DATE
1	Programs that support local farmers which helps get lower cost produce to market. Programs that support more farmers markets.	6/21/2019 8:16 AM
2	Blacksburg has 2 local farmer's markets, which is good. mire days of operation would help, and/or food trucks selling local food when markets are not open.	6/21/2019 7:55 AM
3	More labels specifying locally grown products	6/20/2019 4:47 PM
4	availability — farmer's markets are limited.	6/20/2019 4:43 PM
5	Farmers market	6/19/2019 11:03 PM
6	Only 8% of food in grown for human consumption in this country. Farms should stop growing so much food for animal consumption. We need more affordable local produce. The government needs to stop supplementing the dairy and meat industry but instead subsidize local farmers growing produce for humans.	6/19/2019 9:25 PM
7	Comparable prices and easy availability.	6/19/2019 3:55 PM
8	Knowing more when and where its available	6/19/2019 9:40 AM
9	Convenient hours	6/19/2019 9:28 AM
10	If each produce had where it was grown near the shelves of that produce	6/19/2019 8:17 AM
11	More farmer's markets	6/19/2019 5:59 AM
12	Weekday evening farmers markets	6/18/2019 6:23 PM
13	More local food at grocery stores	6/18/2019 1:15 AM
14	Affordability- farmers market is a bit more expensive than grocery store	6/17/2019 1:42 PM
15	Not sure, Floyd makes it pretty easy to do. I guess if Food Lion stocked more local foods that would help, but I don't mind going directly to the farmers & the Harvest Moon either	6/17/2019 1:21 PM
16	Access and price	6/17/2019 10:07 AM
17	Make available	6/17/2019 10:00 AM
18	Availability	6/17/2019 8:24 AM
19	High quality, lots of choices, good value for the money	6/16/2019 8:59 PM
20	Perhaps a local farmers coop that is open 5 days a week.	6/16/2019 3:48 PM
21	Accessibility, places accepting credit cards	6/16/2019 1:50 PM
22	Ability to purchase food beyond limited hours or only once a week at markets	6/16/2019 12:31 PM
23	N/a	6/16/2019 12:29 PM
24	places to buy in nw city	6/16/2019 10:14 AM
25	More available	6/16/2019 9:10 AM
26	Competitive pricing and availability at grocery store.	6/15/2019 10:27 PM
27	Competitive pricing and availability at grocery store.	6/15/2019 10:26 PM
28	convenience, price, organic, no spray	6/15/2019 5:58 PM
29	Better communication about availability	6/15/2019 1:54 PM
30	Location	6/15/2019 1:50 PM
31	Knowing exactly when and where local farmers' markets are located and what they are selling.	6/15/2019 7:29 AM
32	Variety available and cost	6/15/2019 5:23 AM
33	More options at grocery stores and restaurants	6/14/2019 11:10 PM
34	Barter	6/14/2019 8:42 PM

Regional Local Food Plan - Consumer Survey

35	Our farmers market has limited hours and meh offerings	6/14/2019 6:11 PM
36	A better, more accessible farmer's market.	6/14/2019 1:48 PM
37	It's tomatoes that take us to the market, so a year-long tomato season would do it.	6/14/2019 11:57 AM
38	Would like local food to be sold in more places.	6/14/2019 11:48 AM
39	Closer resources/shops	6/14/2019 10:22 AM
40	Not sure	6/14/2019 12:52 AM
41	Price	6/13/2019 6:45 PM
42	Local availability	6/13/2019 5:08 PM
43	Lower costs	6/13/2019 1:06 PM
44	More availability around town!	6/13/2019 10:17 AM
45	better parking at farmer's market	6/13/2019 8:54 AM
46	Less expensive	6/13/2019 6:39 AM
47	More access can't always get to the market on Saturday and there are no times I can during the week	6/12/2019 10:48 PM
48	Affordability	6/12/2019 9:56 PM
49	More stores/variety	6/12/2019 7:53 PM
50	Availability in stores	6/12/2019 6:58 PM
51	less expensive	6/12/2019 1:13 PM
52	Price and availability	6/12/2019 8:53 AM
53	Available at grocery store close to home.	6/11/2019 11:35 PM
54	Labeling in store	6/11/2019 9:31 PM
55	More vendors and neighborhood locations	6/11/2019 8:09 PM
56	Local food offerings in grocery stores	6/11/2019 6:53 PM
57	Easier to find and price	6/11/2019 5:25 PM
58	Stores carrying more local oprions.	6/10/2019 4:52 PM
59	Price and availability	6/9/2019 5:55 PM
60	Ease of getting it	6/9/2019 4:23 PM
61	Bring cost down to comparable with supermarkets	6/9/2019 1:45 PM
62	More availability	6/9/2019 11:58 AM
63	More hours / days at local farmers markets and local grocer vending local food	6/8/2019 11:28 PM
64	More hours open for Farmers Market	6/8/2019 3:34 PM
65	More time in my schedule	6/8/2019 2:40 PM
66	Affordability	6/8/2019 2:14 PM
67	Accessibility.	6/8/2019 10:47 AM
68	Location	6/8/2019 6:44 AM
69	Price	6/7/2019 8:53 PM
70	If they delivered	6/7/2019 7:01 PM
71	Local products being in more grocery stores	6/7/2019 5:29 PM

Regional Local Food Plan - Consumer Survey

72	Cheaper prices	6/7/2019 11:11 AM
73	Less expensive; easily accessible	6/7/2019 10:52 AM
74	I already shop at farmers market and farm stands	6/6/2019 7:30 PM
75	Availability and economic feasibility	6/6/2019 7:04 PM
76	Convenience to the NW area of the city	6/6/2019 5:11 PM
77	Being closer to me	6/6/2019 12:46 PM
78	Delivery	6/6/2019 11:56 AM
79	Location	6/5/2019 7:46 PM
80	Expanded day at farmer's market - weekday or local stand	6/2/2019 8:30 AM
81	Available in larger stores, such as Kroger, Food Lion, WalMart, etc.	5/23/2019 10:43 AM
82	Having an indoor store with air conditioning	5/20/2019 9:06 PM
83	more stores in neighborhoods	5/20/2019 11:01 AM
84	closer	5/20/2019 11:00 AM
85	stack	5/20/2019 10:59 AM
86	more local foods	5/20/2019 10:58 AM
87	more local stores	5/20/2019 10:57 AM
88	more stores	5/20/2019 10:57 AM
89	n/a	5/20/2019 10:56 AM
90	advertisement	5/20/2019 10:55 AM
91	be in wal mart	5/20/2019 10:55 AM
92	price	5/20/2019 10:54 AM
93	advertisement	5/20/2019 10:53 AM
94	delivery	5/20/2019 10:53 AM
95	online and cheaper prices	5/20/2019 10:51 AM
96	more accesible	5/20/2019 10:50 AM
97	store with lots of available hours	5/20/2019 10:49 AM
98	n/a	5/20/2019 10:48 AM
99	abundance of local food supplies	5/20/2019 10:47 AM
100	n/a	5/20/2019 10:46 AM
101	location	5/20/2019 10:45 AM
102	info on local food	5/20/2019 10:44 AM
103	easier access	5/20/2019 10:43 AM
104	convenience	5/20/2019 10:43 AM
105	fastest and easiest to come across	5/20/2019 10:42 AM
106	more available	5/20/2019 10:40 AM
107	just knowing where they are	5/20/2019 10:39 AM
108	more farmers markets	5/20/2019 10:38 AM
109	parking downtown and better prices	5/20/2019 10:37 AM

Regional Local Food Plan - Consumer Survey

110	more choices/locations	5/20/2019 10:36 AM
111	convenience	5/20/2019 10:35 AM
112	n/a	5/20/2019 10:32 AM
113	Price	5/17/2019 8:25 PM
114	Outlets closer to my existing travel patterns rather than a special trip somewhere.	5/17/2019 1:42 PM
115	Availability/affordability	5/17/2019 10:18 AM
116	Local food options closer to home and not just Saturday mornings	5/17/2019 9:59 AM
117	Have it for sale in grocery stores.	5/16/2019 3:57 PM
118	Pricing, generally.	5/16/2019 10:18 AM
119	Knowing what is in it	5/15/2019 7:40 PM
120	More surplus in grocery stores and additional marketing by stores	5/15/2019 6:27 PM
121	More CSA's	5/15/2019 3:20 PM
122	Convenience & affordability	5/15/2019 3:14 PM
123	More farmers' market days	5/15/2019 2:16 PM
124	If it was clearly marked with information about where it was grown and what pesticides were used.	5/15/2019 2:04 PM
125	labeling! more options at the grocery.	5/15/2019 8:43 AM
126	Don't know	5/15/2019 6:48 AM
127	Z	5/15/2019 6:32 AM
128	I find it easy enough.	5/14/2019 10:06 PM
129	Selling it in more grocery stores	5/14/2019 10:02 PM
130	Convenience. Don't have to drive all over town to get all if my items	5/14/2019 10:00 PM
131	Weekday markets	5/14/2019 8:50 PM
132	Availability at reasonable price	5/14/2019 7:45 PM
133	Available more often than just a Saturday farmers market	5/14/2019 6:56 PM
134	Convenience & communication where to buy	5/14/2019 6:53 PM
135	Cost & convenience	5/14/2019 6:08 PM
136	Affordability, ways to make it affordable	5/14/2019 6:01 PM
137	More local markets	5/14/2019 5:36 PM
138	Available for a lower price	5/14/2019 3:51 PM
139	Easy access	5/14/2019 3:45 PM
140	Ease in locating and purchasing. Food quality.	5/14/2019 2:36 PM
141	Location	5/14/2019 2:05 PM
142	Accessiblity	5/14/2019 1:58 PM
143	More affordable options with better weekday hours for 9-5 workers.	5/14/2019 10:26 AM
144	More accessible and lower prices	5/14/2019 9:40 AM
145	Availability	5/10/2019 10:31 PM
146	closer fresh market	5/9/2019 11:54 AM
147	Better labeling	5/8/2019 8:24 PM

Regional Local Food Plan - Consumer Survey

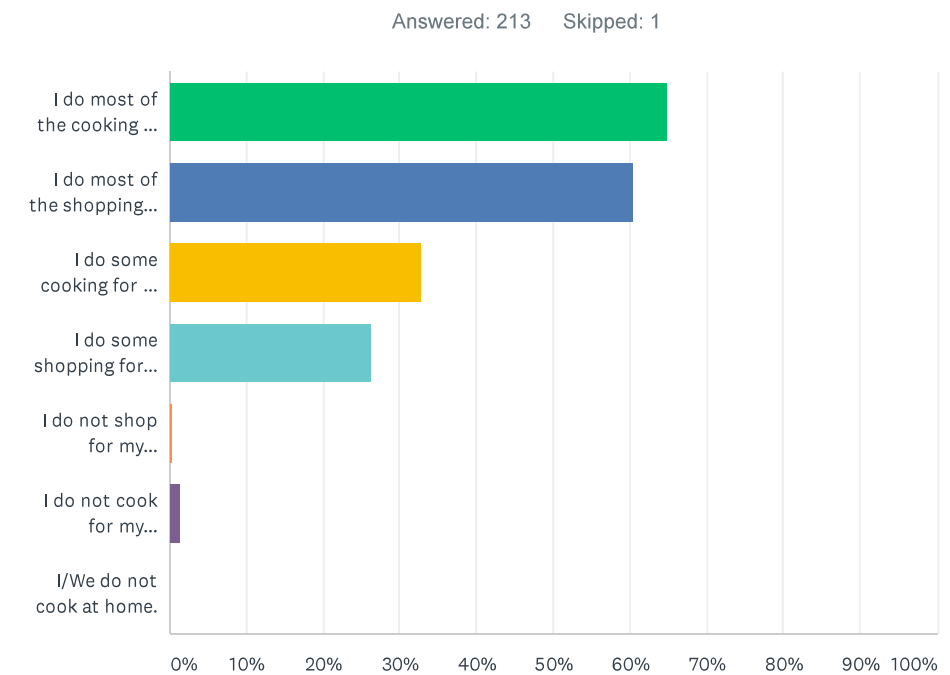
148	Better availability	5/8/2019 9:36 AM
149	more local markets that are easy access	5/8/2019 9:01 AM
150	availability at grocery stores	5/8/2019 8:33 AM
151	More availability, ie it's in the stores where I already shop or it's nearby or available the same times I am shopping. (Often Sunday afternoon/evening.)	5/7/2019 8:43 PM
152	online ordering	5/7/2019 4:27 PM
153	Delivery options, other locations that downtown	5/7/2019 4:26 PM
154	Availability and easy access	5/7/2019 3:45 PM
155	more readily accessible and less expensive	5/7/2019 3:32 PM
156	Easily accessible	5/7/2019 3:12 PM
157	convenience and price	5/7/2019 3:08 PM
158	Price	5/6/2019 8:00 PM
159	access	5/6/2019 3:19 PM
160	If it were in the grocery stores I already shop at.	5/6/2019 3:15 PM
161	less expensive	5/6/2019 3:06 PM
162	Availability in more grocery stores with clear labels. Clear signage in general.	5/5/2019 8:29 PM
163	More variety at local farmer's market	5/4/2019 6:22 PM
164	convenience	5/4/2019 7:21 AM
165	Convenience. Working 2 jobs..weekends too. VA farmers market is a godsend	5/4/2019 6:11 AM
166	Locations that offer local goods	5/3/2019 7:24 PM
167	price point & availability	5/3/2019 3:38 PM
168	availability	5/3/2019 2:52 PM
169	Having it in grocery stores	5/3/2019 2:34 PM
170	Better parking availability, not everyone is young and healthy	5/3/2019 1:10 PM
171	Widespread availability/convenience, and price	5/3/2019 11:58 AM
172	Ease of access esp if its sold in stores during the week and not just weeken markets.	5/2/2019 6:08 PM
173	Knowing what is local and what is not	5/2/2019 9:59 AM
174	evening hours at farmers markets	5/2/2019 7:34 AM
175	Access	5/2/2019 5:57 AM
176	Grocery store	5/1/2019 8:59 PM
177	More local options at grocery store	5/1/2019 8:51 PM
178	Price	5/1/2019 5:35 PM
179	Distance, freshness, affordability	5/1/2019 4:25 PM
180	Making it available at grocery stores. Hate to say that because I love farmers markets, but sometimes I don't have time to go there.	5/1/2019 3:31 PM
181	If it was more convenient and if the prices were lower.	5/1/2019 3:22 PM
182	Availability in grocery stores	5/1/2019 2:28 PM
183	affordability	4/25/2019 12:50 PM
184	variety	4/25/2019 12:49 PM

Regional Local Food Plan - Consumer Survey

185	accessibility--information sharing, like that food stamps are able to be used at the market	4/25/2019 12:49 PM
186	having more food available	4/25/2019 12:47 PM
187	more tasty, support our farmers	4/25/2019 12:47 PM
188	easy to get to	4/25/2019 12:46 PM
189	Knowing where and when to get it--Sal Farmer's market is good	4/25/2019 12:45 PM
190	the bus does not go to Kroger at Electric and Apperton	4/25/2019 12:44 PM
191	I already use farmer's outlets-perhaps more labels "local" on items in stores	4/25/2019 12:43 PM
192	in ALL grocery stores	4/25/2019 12:41 PM
193	prices	4/25/2019 12:40 PM
194	more grocery stores in low-income areas	4/25/2019 12:39 PM
195	more time	4/25/2019 12:38 PM
196	n/a	4/25/2019 12:37 PM
197	more market days	4/25/2019 12:37 PM
198	more markets. Access.	4/25/2019 12:36 PM
199	cost (lower)	4/25/2019 12:35 PM
200	accessibility/availability--make available at Kroger and label what is local	4/25/2019 12:34 PM
201	location	4/25/2019 12:33 PM
202	finances	4/25/2019 12:32 PM
203	n/a	4/25/2019 12:31 PM
204	labeling	4/25/2019 12:30 PM
205	more locations	4/25/2019 12:28 PM
206	more variety	4/25/2019 11:57 AM
207	cheaper	4/25/2019 11:41 AM
208	labeling in large grocery stores	4/25/2019 11:37 AM
209	it's already easy	4/25/2019 11:36 AM
210	more venues/markets, i.e. Riverside	4/25/2019 11:36 AM
211	pickup service	4/25/2019 11:36 AM
212	price	4/25/2019 11:35 AM
213	accessibility, available closer to home	4/25/2019 11:35 AM

Regional Local Food Plan - Consumer Survey

Q5 Please describe your food role in your household. (Check all that apply)



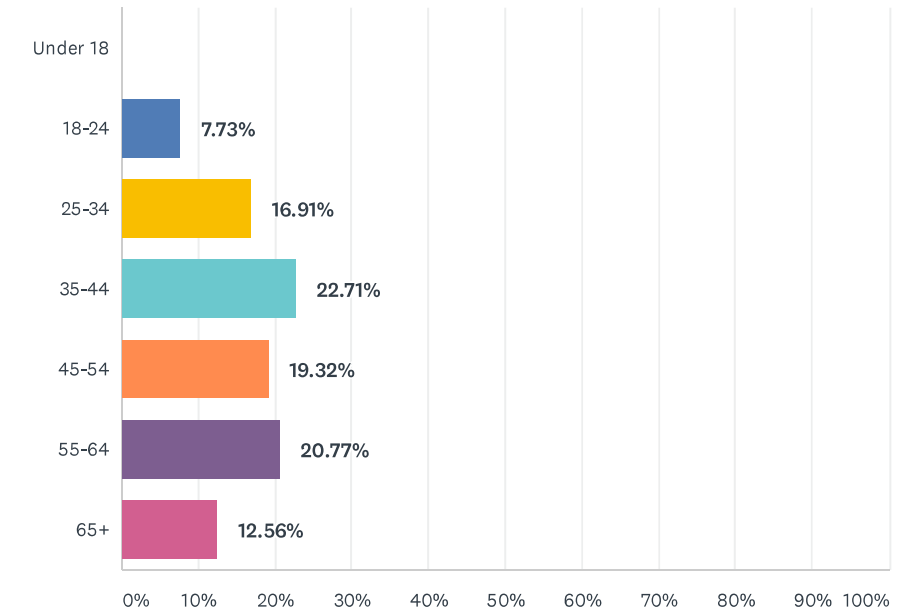
ANSWER CHOICES	RESPONSES
I do most of the cooking for my household.	64.79% 138
I do most of the shopping for my household.	60.56% 129
I do some cooking for my household.	32.86% 70
I do some shopping for my household.	26.29% 56
I do not shop for my household.	0.47% 1
I do not cook for my household.	1.41% 3
I/We do not cook at home.	0.00% 0
Total Respondents: 213	

Q6 In what ZIP code is your home located? (enter 5-digit ZIP code; for example, 24010)

Answered: 207 Skipped: 7

Q7 What is your age range?

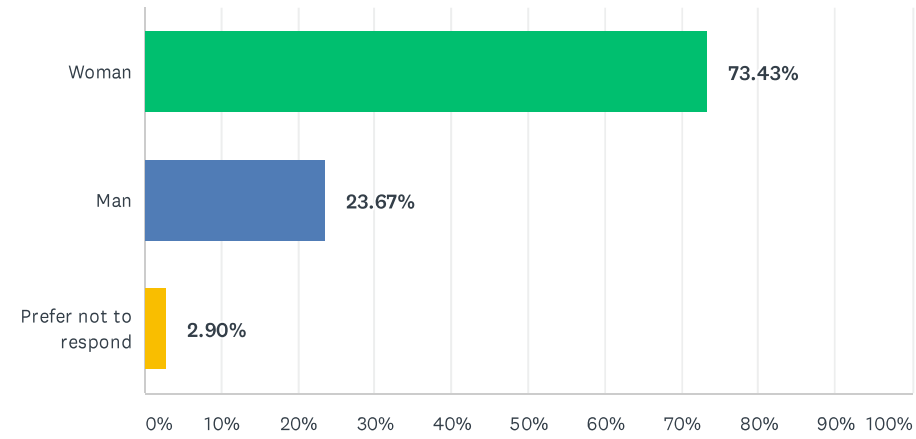
Answered: 207 Skipped: 7



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18-24	7.73%	16
25-34	16.91%	35
35-44	22.71%	47
45-54	19.32%	40
55-64	20.77%	43
65+	12.56%	26
TOTAL		207

Q8 To which gender identity do you most identify?

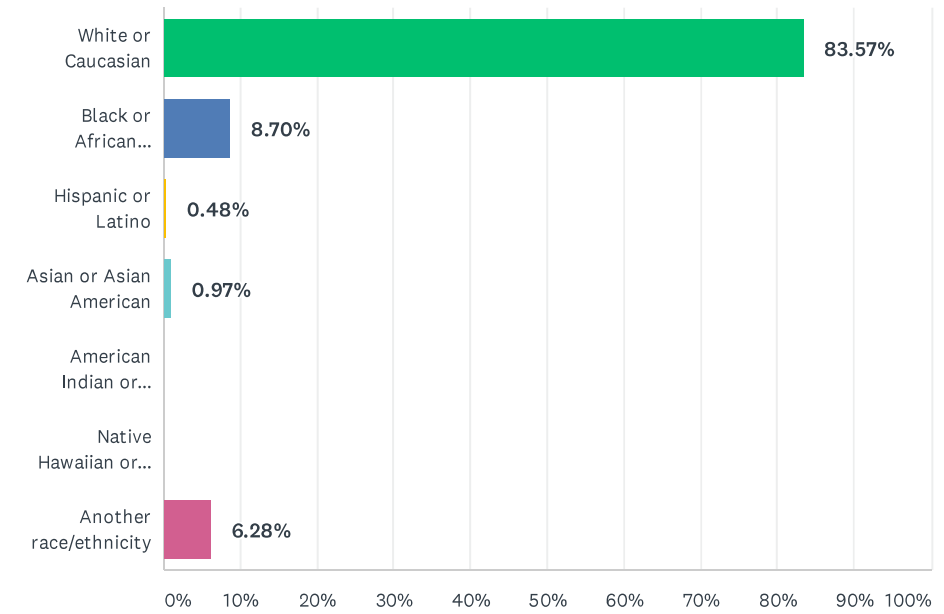
Answered: 207 Skipped: 7



ANSWER CHOICES	RESPONSES	
Woman	73.43%	152
Man	23.67%	49
Prefer not to respond	2.90%	6
TOTAL		207

Q9 Which race/ethnicity best describes you? (Please choose only one.)

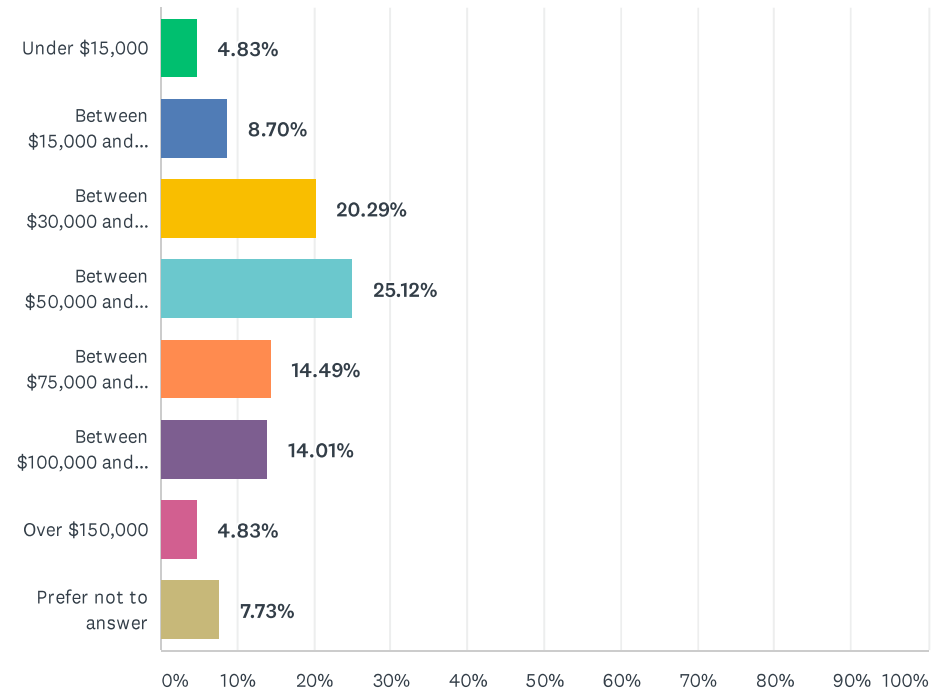
Answered: 207 Skipped: 7



ANSWER CHOICES	RESPONSES	
White or Caucasian	83.57%	173
Black or African American	8.70%	18
Hispanic or Latino	0.48%	1
Asian or Asian American	0.97%	2
American Indian or Alaska Native	0.00%	0
Native Hawaiian or other Pacific Islander	0.00%	0
Another race/ethnicity	6.28%	13
TOTAL		207

Q10 Please estimate your annual household income.

Answered: 207 Skipped: 7



ANSWER CHOICES	RESPONSES	
Under \$15,000	4.83%	10
Between \$15,000 and \$29,999	8.70%	18
Between \$30,000 and \$49,999	20.29%	42
Between \$50,000 and \$74,999	25.12%	52
Between \$75,000 and \$99,999	14.49%	30
Between \$100,000 and \$150,000	14.01%	29
Over \$150,000	4.83%	10
Prefer not to answer	7.73%	16
TOTAL		207

APPENDIX B: STAKEHOLDER INTERVIEWS

Stakeholder Interviews Report for the Local Food Steering Committee

August 2019



Prepared by Colie Touzel



I. Introduction to and contents of the Local Food Report

In May and June of 2019, intern Colie Touzel of the Roanoke Valley-Alleghany Regional Commission scheduled and conducted twenty phone interviews with stakeholders across the region to discover information on local food programs, initiatives, and access. These stakeholders were recommended by the Local Food Plan Steering Committee and consisted of local restaurant owners or chefs, farmers, nonprofits, and other prominent figures or organizations in the region. These interviews were conducted over the phone and lasted anywhere from thirty minutes to over an hour with ten questions asked in total. The interviews were transcribed simultaneously and then edited for minor corrections afterwards. The interview questions were as follows:

1. *What is your organization's mission?*
2. *How does your organization impact the local food system?*
3. *What programs or activities are you currently pursuing regarding food access, food security, farmer support, or other aspects of local food? What is/are the goals of the program(s)?*
4. *Does your business or organization work with farmers or consumers directly? What are their main concerns?*
5. *From a local and regional government perspective, what would most help you achieve those goals?*
6. *When surveyed, farmers suggested that educating consumers would be the most helpful way to increase their profit. Do you have any suggestions of how to collaborate with farmers and reach consumers in a positive and educational way?*
7. *When surveyed, 100% of consumers said they want to purchase more local food, but when asked why they do not, some mentioned the lack of access in stores and the high prices. What can we do to help combat these issues together?*
8. *How can we get more people involved in local food networks and initiatives?*
9. *What is your vision of a healthy food system in the Roanoke region?*
10. *Do you have any other comments you would like to share?*

The rest of this report will detail excerpts from the interviews as well as contextual information about the interviewees' organizations and the wider community. No interviewee nor organization is listed nor quoted in any particular order. The report will be organized as follows:

Section II: Agencies

Agencies interviewed include:

- Virginia Cooperative Extension in Roanoke, Botetourt, and Franklin Counties
- Local Environmental Agricultural Project (LEAP)
- Freedom First
- Carilion Clinic and Morningside Urban Farm
- Chesapeake Bay Food Systems Network

Section III: Farmers and the Roanoke Community Garden Association

Farmers and organizations interviewed include:

- Roanoke Community Garden Association
- Lick Run Farm
- Ikenberry Orchard
- Four Oaks Farms
- Apple Ridge Farms
- Homestead Creamery
- Garrett Farms

Section IV: Restaurants

Restaurants interviewed include:

- Garden Song Eco Café
- Fortunato
- Local Roots

Section V: Informing the public

- What does ‘local’ mean
- Finding information

Section VI: Future Vision

- The need for a Local Food Coordinator
- Stakeholders’ ideas for the Roanoke region

II. Agencies

VIRGINIA COOPERATIVE EXTENSION

Virginia has two land-grant universities, Virginia Tech and Virginia State University, which are dedicated to providing practical and challenging education no matter where a student comes from. These universities also work with agents from Virginia Cooperative Extension (VCE).

- We work as liaisons between the researchers from the universities and the farmers and citizens of Virginia.”

VCE agents specialize in a particular area of agriculture or animal husbandry and are experts in their field. An agent resides in every county of Virginia and attends in-service trainings at the universities to bring back information for their counties’ farmers and producers.

- “The mission of a VCE agents are to be on-call, so to speak, for farmers—and citizens with agriculture related inquiries—and to share research and new practices from the universities.”
- “Hopefully the training and learning go both ways because the farmers will stumble upon problems before researchers will, and then the experiences can be reported back through us.”

VCE offices act as learning centers for their counties. They provide gardening information for people who want to contribute to a community garden.

- “We introduce people who call in who are in need of food or wanting to get in touch with a food bank to Heavenly Manna and Stepping Stone as well as some churches. United Way has some community gardens and the Master Gardeners partner with Lake Christian Ministry who help spread the food to the community...Franklin County’s Master Gardener Club put together a 10-page local food guide that includes a directory of farm stands, U-pick, and where and who sells products in Franklin County.”
- “Foot Hill’s produce auction in Boone’s Mill runs on Tuesdays and Fridays at 9am. People can purchase local products in bulk. These products are seasonal from local farmers in the county.”
- “We have a program on WSSR called ‘Living Local’ that helps people understand more about what the Extension does. There’s a different agent on every time.”
- “Presbyterian community center: People are sharing the produce Community Garden Association charges \$30 per plot, they donated two plots to our program and then those people go back to the PCC and do an exercise

program: varies by week—3 to 7-8. PCC has a program called ‘Getting Ahead’ that helps people get out of poverty.”

They provide several programs including 4-H development summer programs and camps for youth as well as after school programs and the Boys and Girls Club.

- “We have to start with kids and engage younger generations with fresh food...teach them how to grow and cook and involve them in the process of cooking. The boys and girls club held a harvest dinner at the end of the season with all the vegetables we’d grown in the garden and a parent came up to me after the dinner and told me, ‘My child has been talking about this for the past 10 weeks, but I didn’t realize until now how important it was.’”

VCE stakeholders and other stakeholders in the restaurant and farming business mentioned that they would love to provide more classes with food preparation.

- “I remember about seven years ago participating in a program with Roanoke Cooperative Extension and we met once a week with ten single mothers based on income. We taught them how to make healthy meals with local produce that tasted good and were affordable and could feed 2-3 children for two days for \$12, that way they only had to cook every other day. We cooked a vegetable lasagna with swiss chard because that’s what we were able to get. It was a great program.”
- “I used to teach an educational program in the past and need to do it again soon. It’s much cheaper if you buy a half of a steer or a whole hog and put it in your freezer instead of a pork chop or a pound of ground beef. You’re going to need to know how to pre-plan: you’re going to spend \$3,000 at one time and you have to buy a chest freezer and know how to cook with frozen meat.”

VCE provides hands-on learning experience and provides demos county-wide, so these experiences keep VCE a prominent part of the community.

- “One thing that makes us different is the internet can’t provide hands-on learning experience. We do demos on a county-wide basis. We bring the research and technology and new science from Virginia Tech back and into the farmer’s hands, so when the farmers have an issue, they come to us.”
- “The farmers market in Botetourt is really doing well this year. I’ve been helping farmers put together business models and try to cut expenses. If the farms make money, then they’re buying more and so they’re helping the economy. When farmland and farmers no longer make money, that’s when farmlands get sold and developments get built and they fall apart...In previous years I saw farmers spend their whole Saturday at the market not making any money, and it’s tough to tell them to keep doing this. But finally,

it’s starting to change...If the farmers can sustain themselves on the backs of the southern, more affluent consumers, then maybe the market can eventually start offering SNAP benefits and the rural folks in the north can start coming to the market, too.”

VCE agents are more than just agricultural specialists, they are there for their communities. The Commissioner of Agriculture at Virginia Department of Agriculture and Consumer Service (VDACS) has a farm task force to better help the farm community. The task force is made up of people from different agencies.

- “I’ve had to take mental health first aid classes because farmer suicide has increase more than ever before. This is very disheartening because the farmers I work with are like family. We’re their ear. They vent to us and we’re here for them in more ways than one.”

LOCAL ENVIRONMENTAL AGRICULTURAL PROJECT (LEAP)

LEAP is a non-profit that connects local farmers, producers, culinary entrepreneurs and community members together. They have a Farm Share, Mobile Market, and operate two Farmers Markets. They also created a commercial kitchen in Roanoke’s West End. They work with Virginia Fresh Match, a SNAP match food incentive program which has funded \$1.8 million in match state-wide over three years.

- “The markets who are involved in VA Fresh Match have the same labeling, training, marketing, and incentive funding, and work together to be more effective with our time...Now we need more longer and permanent funding and not just ebb and flow based on what might be available. Roanoke Co-Op is the second pilot site for VA Fresh Market which started 2 weeks ago. With this, people with SNAP can get 50% off their produce.”
- “Locally, we’re hoping to build out the Food Hub wholesale. We will have to do a farmer training—this is a multi-year goal.”
- “We’re working with Apple Ridge Farms on more production and farmer incubator sites, but that is two years out. This is a clear need, but it’s not a direction we’ve gone in before. If we want to increase the local food system, we need to integrate the farmers locally.”
- “Outreach and education is how we’ll get more people involved. We’re putting on a film series and it’s the first we’ve ever done. It’s hard to pay for programs that benefit everyone and if it’s just one organization doing it, it’s hard to benefit everyone. At some point, we said we have to just go ahead and do this to get the conversation started. We work a lot with the VCE and they do a great job with cooking classes and other educational programs. We don’t duplicate the work they do, but those programs aren’t attended as well as they should be. People are busy. We all have ownership, and no one has control.”

FREEDOM FIRST CREDIT UNION (Freedom First)

Freedom First Credit Union is a Community Development Financial Institution (CDFI) that provides financial services to all individuals promoting inclusiveness and supports diversity in a way that does not often fit the traditional model.

- “When we picked that location, we created a farmer’s market off to the side and a space for a food kitchen inside. As a CDFI, we can access funding for a food initiative. I have a strong belief that financial fitness is tied to food. When we are stressed it can lead to drinking, drug use, over eating, so we’re starting to do a lot of work in our neighborhoods around food.”

Freedom First provides employee incentives to eat locally.

- “To support LEAP with food shares you have to pay up front, but if I have an employee who wants to sign up for the food share program, I’ll front the money and the employee can deduct it from their paycheck over time, plus they get a \$50 bonus for signing up. One person from the office goes every week and picks it up, so we don’t all have to go. It’s similar to Carilion’s model for their employees.”

Freedom First provides financial support for immigrants, students, and adults.

- “If farming is all an immigrant knows, we provide services that can help with technical assistance through education like starting up a business or a business plan and then we structure a financial loan. If we could improve the distribution process and bring food into areas where people need it the most and eliminate the barriers, we would.
- “We provide financial education to students and teach classes about the importance of savings and budgeting and how making the right food choices can affect your pocket. We give money to students to buy fresh produce at the markets, but also we teach them to plan ahead and budget and how to plan their next meal. Impulse behaviors aren’t the best in the long term. We’ll be teaching adult classes soon, too at the Financial Empowerment Center for Roanoke citizens. We’ll teach budgeting, savings plan, how to save for a home, save for transportation, how to watch out for predatory lending pitfalls, and more.”

Freedom First’s concerns for the community.

- “There needs to be more education on how SNAP benefits work so more people have access to it. Food preparation process is a struggle. I’m glad VCE helps in planning meals and making it. But how do we get it from the farmers to the people who need it most? Transportation is a barrier, and food access in our lower income neighborhoods.”

- “If LEAP had the support from local government, that’d be the best source of the government’s energy.”

CARILION AND MORINGSIDE URBAN FARM

Morningside Urban Farm is a project of Roanoke Community Garden Association in collaboration with Carilion Clinic. In addition to community gardening, they provide regular classes including food demonstrations, yoga, and courses focusing on holistic healing. The farmer, Cam, also owns and operates his own farm, Garden Variety Harvests. One main goal of Morningside Farm is to implement health strategies and provide the community with the ability to grow their own produce. Not only do they want to provide a communal space for people to participate in classes to expand their horizons, but also they want to promote healthy living and career opportunities and networking for the wider community.

- “When people attend classes there is fresh produce available for them to take. Morningside is more about building education and community; it’s about bringing people together around food. If there is still leftover food, and we happen to have extra, we give it away to a food bank.”
- “There’s a lot of support from other people wanting to provide classes. The younger generation part is very exciting. People are shocked to find out that Cam wants to farm for a career. He hopes they’re sparking interest in younger children.”

However, they realize that there is still a long way to go and one urban farm, and not even multiple urban farms like Morningside, can make the necessary changes to fix the depth of the problem. It is necessary for younger people start farming, for more people to understand how important fresh, local food is for their health and environment, and that funding become more accessible to organizations and people.

- “The candle is burning from both ends—we’re not going to feed the southeast with ten farms this size, but we’ve proven that this works by taking a small piece of the city with a little grant funding and turning it into a small urban farm. However, we’re not going to solve this problem with small urban farms. Not enough young people want to be a part of this. It’s laughable that there are parts of northwest that the closest grocery store is three miles away. Maybe the government can work with [grocery] stores to make it a profitable venture and give [grocery stores] free rent for five years.”
- “SNAP matching is not an infinite pool of resources.”

Carilion Clinic and Morningside Farm are interested in the intersections of consuming healthy food with a medical perspective in mind with the consideration of the aging community and their needs for additional medicines might be alleviated with more access to healthy eating and better exercise.. There are some communities and doctors who prescribe healthy food to provide more accessibility, which is

suggested below.

- “Access to healthy food also addresses other costs that could disappear. Food helps assess the health of a community so that all levels of health are being addressed. Some people could get a “Fresh food RX” prescription where they could go to the doctor’s office and get access to healthy food that way.”

Partnering with an expert from the wider community gives folks a chance to learn new skills and also learn about the expert and how important it is to support other regional food experts. A local food group has partnered with Morningside where they will be the host for a series of events called the “Loving Local Food” series.

- “They’ll have Matt Lints from Local Roots put on food demos and we’ll give away food. The first event will be the Summer Solstice festival and there will be fruit, cherries raspberries, summer squash. The 2nd event will be August 1 focused on corn and late summer veggies. These are supposed to be less intimidating for people and give them a chance to ask questions of experts and have them start thinking about what’s in season and what does eating in season mean and how to cook with more variety! When one of the best chefs in Roanoke shows you six different things you can do with cherries, this helps that creativity!”

CHESAPEAKE BAY FOOD SYSTEMS NETWORK (CFN)

CFN is managed by Local Concepts, a network management team who connects with food systems work and then broadcasts that information. Local Concepts hosts webinars about food systems to their 5,000 registrants and change makers. CFN is a national agency which helps showcase important food systems work in Southwest Virginia. This ability to broadcast to others provides food systems lessons to a wider audience and further network building not only statewide, but also nationwide. One of CFN’s major goals is to make sure everyone has a voice and is being represented.

- “CFN focuses around the facts. We can’t do this work unless we’re led by the people who have been most marginalized in the process. We are building more democratic processes and elevating the voices of people of color and others who haven’t spoken up. So, we must broadcast and connect, but we also center our work around equity internally on our steering team.”
- “Our newest working group is called ‘Community Ownership and Prosperity Action Team.’ The group was chosen through an open application process and they are funded to work together for a year and a half. Their goal is to dismantle racism through the food systems and write guidelines and strategies to help prosperity. Their guideline should be written by the midyear 2020.”

III. Farmers and the Roanoke Community Garden Association

Several farmers were interviewed from all across the Roanoke Valley-Alleghany Region. Some are in transition, some are small, urban farms, and some are large, wholesale farms. Some only grow one type of crop, and some grow a variety of different crops.

The Roanoke Community Garden Association was also interviewed and is included in this section. It is also in transition because it is trying to grow its locations and it has new leadership, but it also wants to make sure it is moving at a steady pace and doing the right thing for the communities it develops in.

One stakeholder noted the importance of humanizing farmers. The connection to where food comes from has been so disconnected that it is difficult to make that reconnection. Therefore, it is necessary to show where the farmers come from as well as where the food comes from.

- “Consumers need to be taught that these farmers are humans who have families and they aren’t evil and aren’t trying to do horrible things. They’re not being paid off by corporations...it is necessary to humanize industrial farmers, scientists, and researchers in order to make consumers feel more connected and positive to where their food comes from.”
- “Go to the Farmer’s market and meet the people who produce the food, how they produce it, and ask why they produce it—a farmer doesn’t do what they do for no reason, especially when it’s so hard to make a living as a farmer.”

Communication is especially important in a farmer’s job. The reasoning behind why farmers are in their line of work was brought up time and again in the interviews: it is not because of the money, because there is none. The reason behind farming for many of the interviewees has to do with developing relationships; communicating with their community is a key goal for farmers.

- “We talk with our customers every single day. We talk to them face to face and answer them honestly. If we don’t know something, we find it out and get back to them. Interaction, face to face. Most people that grow on the scale that we grow pack and ship, but we’re different. We used to do that, but we stopped. It’s not easy, but it works for us. I wouldn’t recommend it. There’s nothing about an apple or farming that has any profit in it. We’re the last generation who will do this.”
- “We’ve created HCAT: Healthy Community Action Team with several partners to develop a sustainable food system with a readiness survey and assessment and see if the community is ready on an interest level and see where their knowledge of particular issues is. Then we can see where their interest in the solutions is—like do we need a grocery store, cooking classes, etc. Does the community know that this is even happening; do they even know that this

needs to happen? If so, we can proceed to the surveying. But if they don't know there's an issue, there needs to be education."

In organizations like the Roanoke Community Gardens Association, where there are member dues, they still provide the ability to waive those fees. It is more important to the organization for the community to have access to gardening and community networking than making money off of every garden plot.

- "We build communities through gardening...if the gardening succeeds: great, but the community part is the most important part."
- "We provide fee waivers or reduced fees. We have a few gardeners who take advantage of that and that's awesome because that means those people are invested already. Community gardening is a very hands-on level of local food access. Not all of our gardens have to be structured. Not only one person can be the sole beneficiary...everyone grows and shares, or everyone grows and shares it with a community that needs it."

When communicating with their customers, farmers have to make sure they know what their customers are looking for. In this way, farmers can better prepare for their future years and how to better serve their community.

- "Customers are interested in how the animals are treated as well as what the animals eat. Then the process that happens once the milk is out of the cow, like with minimal pasteurization and added ingredients. We do a lot of promotion and talking with consumers through call, email, Facebook, demo and free product, and asking in person. We have conversations with our customers."
- "They're worried about climate change and how that's going to affect agriculture: flooding, pests and disease, new pests and disease."
- "Many people ask if we're organic and when we say we're not, they go ahead and buy our apples anyway. They always like the freshness and number of varieties we sell. We sell more apples to the public than anyone we know of."
- "They're concerned about access to grocery stores and being involved in something positive that makes their community look and feel good."

Several farmers have programs in place with schools either for educational purposes or to provide the schools with healthier food and beverage options.

- "We're working with local schools to get local milk in school systems with a washable cup."
- "We've done an agritourism program for school groups for 12 years now."
- "I really enjoy selling to the local school system and hearing that the kids are liking to eat the salad! This is impacting how the kids are going to view their futures and impacting them positively."

Other farmers provide more hands on activities. In the quotes below, they reflect on the impact they are making on the youth and how they want to continue making these connections, because when the farmers make an impact on the youth who learn on their farms, the youth, in turn, are making a difference out in their communities and teaching others about what they have learned.

- "We impact the local food system through community education and sustainable agricultural practices, youth focused engagement and hands on activities—some of these programs include: gardening, a youth-run farm stand, agricultural education like hoop house work, seed propagation, harvesting, watering, maintenance, weeding, connecting with other organizations, and developing relationships."
- "Students like putting their hands in the dirt and creating food and beautifying their community."

Many stakeholders noted the price of farming, land, and how farmers are not being paid what they should be for food. One mentioned their own transition from a vegetable farm to hemp farming. Many stakeholders spoke of diminishing farm practices and farm land and how that is taking a toll on their desire to keep doing what they love to do.

- "We've been a vegetable farm since 1945, through three generations, but now we're in transition going through CBD purchase production. We've got three acres of row spaces to experiment and we're still growing vegetables in addition to hemp. If this works out, all of the employees, including me, should make 50K a year. The plan will be to purchase assets that all of the employees can use. I want everything to be equal and profitable for everyone. We will still grow vegetables and we'll take it to the farmer's market and give it away for free."

Some interviewees spoke of their experiences with regulations and certifications.

- "We're a GAP certified farm and we're very serious about food safety. There have been so many outbreaks all over the world due to contamination because products have been handled multiple times. There are multiple avenues for bacteria and infection and it's difficult to find out where and how that happens, but when you buy local, you can find out where that happens quickly! If we're contaminating our food, we're not going to be in business. We're doing everything we can to protect what we provide to our customers who are ultimately our friends."

However, no matter how safe the food is, customers cannot buy food if it is too expensive for them.

- “People that need food don’t even recognize that it could be an option if it’s not affordable.”
- “Kids today: they understand about food quality, but no one can afford to buy it.”

Several stakeholders had suggestions about subsidization of farming.

- “Subsidize the right kind of farming. These are systemic issues; the city of Roanoke isn’t going to change that. Roanoke needs to invest in its communities of color, entrepreneurs and in the people who will make this successful and change in ways we invest in planning. We must support low income communities and they need to take on some leadership.”
- “Don’t charge us taxes. But small business is what pays the bills in this country, so no, that won’t work. The local government isn’t going to give you a break and it wouldn’t help us to sell in other stores.”
- “Local food for the working class is outside of their price range and they don’t qualify for the subsidy, so they don’t buy it. They’re not going to allocate their portion of their income to this...People who are willing to pay enough to justify local produce are often wealthy people with disposable income who don’t have to worry about the cost.”
- “Local food is labor intensive and finding the help to do that is very difficult. It’s hard to market. LEAP’s Virginia Fresh Match isn’t sustainable and can’t go on forever—it’s dependent on government and private contributors which makes it possible for people to afford but only on a bribery basis. But are they willing to pay, especially a true cost? We don’t make the true cost of labor. I tried to sell to a sub shop but she’s competing with Subway. She had to buy cases of pesticide drenched produce from Mexico to compete with Subway.”

Stakeholders also noted the need for support from the government. This topic will return again later in the report.

- “Speak up more as a city and a state for local foods. Talk to city council and go to Richmond, politically, to stand up for local food.”
- “Make policies about how the school board purchases food, and how government buildings purchase food and how they supply food for employees. There needs to be more purchasing and promoting based on these values. Then the government needs to take steps to share what they’re doing and reach out to others, so others catch on. Be allies: offering up space for groups to meet, or a meal for a meeting. Think about where is it difficult for groups to meet? I remember a few years ago the Regional Commission helped plan a Buyer/grower connector meeting at the higher education center; it was a meet and greet. Using examples of what the Regional Commission has done in the past could be helpful; recognition is important because some people may not know. They could also be a voice for change at the state level.”

- “Social services or the local government should direct a volunteerism or education program to support access for healthy nutritious food where people who need volunteer hours can be trained in food agriculture and this would count as their minimal required hours for whatever service they’re trying to receive: SNAP/whatever program.”
- “I’m afraid of governments because governments have a fixed framework: they don’t have a category, they don’t know how to think when they come out to the farm. Code enforcers don’t know how to think outside a blade of grass that can’t be above 9 inches tall. This isn’t a suburban lawn: the city doesn’t have a meta-land category. I’m doing something different and when other people complain, and the government has to come out, they don’t understand.”

Stakeholders also had suggestions on how to make better connections between farmers and the local and regional governments. Stakeholders mentioned farming is a full-time job and it is important that support be provided, however, it is also necessary that there be a willingness to cooperate on both sides with a time that will work for everyone.

- “If a farmer will not be able to make it to a meeting, maybe they need to have a representative for their farm.”
- “Timing—I am doesn’t work. Either first thing in the morning or later in the afternoon would be better. Citizen groups, meet at grocery stores, have a panel across the community would be very successful, night meetings.”

Stakeholders noted suggestions for consumers and what they could do if they were interested in pursuing more local food initiatives or just wanted to show their support.

- “If they want local, fresh food, grow it themselves. Most people don’t do a garden anymore. When I was growing up, everyone had a garden. As far as access, we’re open 7 days a week. I don’t know how more accessible we can be. The customer wants us to have Wal-Mart prices, we’re not going to.”
- “Learn how to cook...teach cooking at a young age, people don’t have the experience with produce or meat anymore.”
- “Habits are so important and so hard to break when it comes to food, you have to start young. Work with schools, school lunches, engage with teachers and nutrition. Farmers don’t have time to do that themselves, they’re busy just being farmers, so the education piece is important that all the non-profits we have in Roanoke need to step in and be a part of.”
- “Get people interested in growing their own food and eating healthy—once they’re used to it, they won’t go back. I refuse to eat corn out of the grocery store. A farmer farms to provide healthy food for the people that live around them, not because of the money”.
- “Buy what’s in season. I can’t buy Virginia avocados. We have to think about the sacrifices we’re willing to make.”

To conclude this section, this stakeholder asks a poignant question that encompasses this whole report.

- “How do we create a local system to protect ourselves against a system that doesn’t put all its eggs in one basket and instead creates a variety of ways to provide food for its population? It’s multi-faceted with tiers: gardening, supporting small farms, community composting, soil health office, etc. There’s a lot of creative ways to talk about these problems that we’re going to continue to face.”

IV. Restaurants

Serving fresh, local food is slowly becoming more popular in the Roanoke region and the businesses interviewed are the pioneers working with local farmers to bring the freshest ingredients to the plate. Several of these businesses have been here for years, but one is extremely fresh. All of the stakeholders’ work involves partnering with the community on multiple levels to deliver fresh, local food, of which they are all deeply passionate about.

One stakeholder succinctly describes why they serve fresh local food to the community. It is not just a way of eating, but it is a way of living.

- “It’s healthful for our bodies to eat what’s nearby. Our bodies are tuned to what’s growing nearby. That’s how people have always lived until agrobusiness took over after WWII. It’s important to work for mother earth and serve food that’s grown that feeds the earth in a way that’s sustainable instead of depletes it. Farmers aren’t getting government subsidizes, so we pay farmers what they’re asking. That’s why our restaurant is more expensive.”

Delivering the freshest foods available, restaurants have to be in constant contact with farmers. Below highlights the details of some of the ongoing deliveries and communications between farmers and the restaurants.

- “January-April, we’ll take whatever we can get and supplement with a bigger company, Cavalier, out of Charlottesville that is able to get local produce out of Charlottesville because of some greenhouses there. April-October, we purchase from multiple growers once a week. I go to the market on Saturdays as well. We get lamb and pork once a week year-round from two farms—one is 2 hours away and the other is one and a half hours away. Combined with the other restaurants who use local growers, every week the local growers will come by directly hoping to sell to all the restaurants. When this first started, there wasn’t much variety in what was being grown, and now that’s changed a lot. Before it was just kale, salad greens, and herbs, but now farmers are growing stuff specifically for restaurants that consumers wouldn’t buy like fava beans, escarole, radicchio.”
- “Several farmers deliver once or twice a week. Mushroom foragers just turn up whenever. We get fish and seafood once a week.”
- “We used to buy a lot from Patchwork farm but they don’t sell much anymore, they just sell wholesale. We buy a lot from Thornfield, but the majority of our sales come from wholesale or crop sale/CSAs.”

Communication is extremely important between the farmer and restaurant, but a lot also depends on how well business is going for the restaurant and, vice versa, how well the crops are growing for the farmer.

- “Growers are mostly concerned about the business. We are an Italian restaurant, so our main product is tomatoes. Last year with all the rain, it was really bad for us. At the same time, if we aren’t, farmers aren’t getting our business.”

Therefore, it is important for restaurants to keep their customers happy and offer to a wide variety of people. One stakeholder notes that they try to appeal to a diverse crowd, but sometimes it is difficult.

- “There are two types of customers, the ones who come in wanting to eat whatever you give them, and the ones who are so excited about what they’re eating and ask a lot of questions, but they’re all positive questions.”
- “I see the same people coming in weekend after weekend, they’re the only ones able to do that, so they’re the only ones able to come to events. It’s tough to get people out on Saturday mornings. I see people at Grandin market and those people aren’t the same people at the restaurant, so those people are the ones buying for themselves. If people can afford to eat out every night, they’re not going to purchase from the local market. It’d be great if we could get the lower middle class to come in and buy stuff, that’s why we do specials certain nights of the week. I’ve learned from working in restaurants all my life that if you just cater to one demographic, they’ll just leave you for another restaurant eventually.”

These restaurants are constantly thinking of ways to stay connected, and not only to they support local farmers and deliver fresh ingredients to the plate, but they also give back to the community.

- “We put on many dinners that are percentage-night where a percentage of the money is given away to an organization in the community. It goes back to the local community.”
- “We have a pay-it-forward program on our communal bulletin board where someone can write the dollar amount they’ve paid for on a ticket and leave it, so if someone comes in who can’t pay for a meal or something, they can use that ticket.”

Restaurants understand the importance of youth participation. Several stakeholders have programs where they work with young people or one of their chefs partners with another organization.

- “Next week I’m meeting with the YMCA at Roanoke Community Garden with 8-12 year olds. It’ll be around 35 kids. We’ll look at what they’re growing in the garden and then we’ll come back to Local Roots to see what those foods are like when you cook and eat them.”

One stakeholder mentioned a program that they think should get funding to return.

- “‘Happy Healthy Cooks’ was this great program about 6-7 years ago by this woman, Heather Quintona. She would come once a week and there would be a theme for certain parts of the year or for a cultural event or holiday. The kids would bring food in and they’d meet and she’d teach them how to cook it and then they’d eat it. She’d ask them what they liked to eat at the beginning and end of the year to see how it changed. She’d educate parents too. Eventually, she couldn’t get enough money. It’d be great to add a line item on the city or whoever’s budget for hands-on education in schools for something like that again.”

V. Informing the public

WHAT DOES 'LOCAL' MEAN?

Several stakeholders wanted a designated definition for the term 'local,' because the definition changes from individual to individual. Some thought it would be helpful if the USDA could specify a definition.

- “Everyone’s definition of “local” is different and, therefore, Charlotte is just as local to us as Richmond is. Homestead Creamery is the only glass bottle milk company in the state. We also sell as far as Florida and it’s still considered local.”
- “We made a presentation to a huge chain (Kroger) and tried to go through all the hoops, but it fell apart because they didn’t have time for us. Telling the truth in advertising should mean something. Businesses think it’s okay to buy it for less than it’s able to be grown for. Nobody has the desire to sell the value of buying local food. What’s a definition of local food? I’ve asked people, “What is local food to you?” and there are so many different responses. I’d like to see a definable answer for that somewhere—maybe USDA could put one out.”

Another stakeholder noted the strength that is placed on all words and that they be reevaluated.

- “We need to be clearer on what words resonate with consumers. ‘Sustainably’ and ‘fair labor’ might not matter, some people might not know that some farms treat their employees horribly.”

Among other words, since the definition of 'local' is contested, the reason behind why it is important to buy local food can be even more difficult to understand for some consumers. For this reason, finding information about local food needs to be easy for the consumer, however, several stakeholders mentioned that many people are not aware of where to find information on local food.

- “Some websites aren’t working anymore and some places of business do not have websites or are not able to keep them updated.”
- “Each county has a directory, but it’s not an efficient use. Consumers don’t want to have to go to each county to slog through to find what they want. People choose the easier way.”

Moreover, it is important that when consumers purchase local food, that they have some plans for what to make with it. Many stakeholders had already tried creative ways to introduce consumers to local foods.

- “When people are presented with something that is beyond what they do day-to-day, something not in season, recipes would help. People are much more visual. They need help knowing what to do with the produce.”
- “Susana with Thornfield made little postcards on the table that promoted her and where she was going to be next and which markets she would be at.”

Some stakeholders had ideas for how to promote local food in general and how to reach out to the public and help bring more people into the local food initiative.

- “Getting people involved is a process. We need to be aggressive and be out there—TV commercials are in your face, people have it memorized. Let’s do the same thing with local food and food security and drill it in peoples’ minds. People are being fed what they’re exposed to, so we might as well feed them something good.”
- “We need help with farmer perspective marketing and education and branding. The messaging that farmers are up against is corporate. VA Fresh Match was a free line marketing campaign so there wasn’t as much of a lift. There is a plan for an integrated website through LEAP, but we need funding for it.”
- “We need to do a PSA or marketing campaign showing why it’s important to support the local economy and how even one dollar spent locally has a multiplier effect within our community. It really does come back to them, 3-4-5 times over. Let’s create an infographic on how that process works.”
- “It takes creativity and a merging of artists and a mindset of business and awareness to make a difference. I have a vision of a community of food growers, artists, healers—all of these people who love and care for the environment, our most authentic self—usually these people are all in different sections, but if we can bring them together and promote local food through music and art and a merging of people through these different scopes of the community, maybe there’s something there. We can encourage and inspire people to join in the dance.”

Many stakeholders recognized that the future of farming is with the younger generation and that farming will die without Youth getting on board. Appealing to youth also related to marketing strategies and helping people understand that farming and growing food can be youthful.

- “We need to lower the age of farmers.”
- “Social media marketing plays a key role in education—Cam is a younger person though, he recognizes that. He suggests a willingness to participate in the education and make agriculture and local food feel like a normal part of everyday life and not something that happens out in the country.”

VI. Future Vision for the Roanoke region

DESIRE FOR A LOCAL FOOD COORDINATOR

Many stakeholders mentioned the term ‘Local Food Coordinator,’ specifically, and wanted this person to be in charge of food policy for the region. The following quotes in this section come from questions five and nine. Stakeholders implore the government to hire a Local Food Coordinator and have a local centralized office that organizes a database for the region. These quotes highlight what a Local Food Coordinator’s job would entail and what they would do for the region.

- “Create an organizer who’s truly committed to the process and action based—someone who gets local legislators on board, who provides opportunities and pushes initiatives forward... no one is actually doing it now. They need to educate everyone involved in the process.”
- “Have the government designate a Food Policy Coordinator to do some of the following: relay different organizations information, create a guide directory or database of everyone in the region, and find local grants that municipalities can go after.”
- “Unifying services is really important and necessary, like finding out what everyone else is doing and planning. A way for consumers to ask questions consumers at a Local Food centralized office where consumers could be connected to the broader network.”

Several stakeholders mentioned a database where everything could be organized for consumers to be directed towards.

- “A database for customers to search and find would be great. Or some sort of recognition for our business being more eco-friendly and more mindful for providing organic food that our customers put in their bodies. This could encourage other restaurants to go bio-degradable if there was an incentive for restaurants to do that, like a Green Business Database or a Sticker that customers saw when entering the establishment.”
- “People aren’t hearing what’s available to them almost in their backyard. We grow year-round, and we grow crops that aren’t usually grown year-round. We need an organization, like one centralized office, to take the reins through PSAs to make the general public aware, “hey do you know this is available in these counties?”
- “Create a central clearing house and acknowledge that it isn’t under the purview of one place, but it’s a joint buy in and benefits everyone. Access, affordability, and health need to be a part of the plan... This needs to be rooted in our thoughts. Distribution, licensing, regulatory...any support that can be provided. Right now, only individuals are directly supported and there’s no support coming from the localities.”

One stakeholder noted that a Food Policy Coordinator would be helping with education as well as accessibility.

- “Constant engagement in educational activities is a must. There would be a Food Policy Coordinator...Policy focuses and education would be the top priority.”

The following quotes relate only to question nine which gave stakeholders the opportunity to voice their dreams for the future; a chance to give words to a vision in the Roanoke region.

Some stakeholders were very specific in their visions and how it would affect the direct community.

- “I’d love to see the Westend market work. It’s running but it’s not doing what it was intended to do. It needs to serve more of the community.”
- “McDonald’s would be coming to a local farmer to buy their lettuce and a cow. The food consumed in any given spot would come from that region. Food would be available to the store within 24 hours of it being picked. Where everybody doesn’t have to worry about where their next meal is coming from.”

Some stakeholders were more broadly thinking how it would affect the wider communities as well as their own specific business.

- “Access for everyone...transportation plays into that, as well as affordability. We are fully aware that our product isn’t affordable for everyone. It depends on how you look at it—it costs more because we’re paying our farmers more.”
- “It’d be helpful to have a partnership with visit VA Blue Ridge as a tourism destination. Hire travel writers and workforce development.”
- “Diverse in the products that are being offered. Like everything that people consume on a regular basis and then offer exotic things that we look for occasionally. Farms should be professionally run in terms of the farms themselves. The farmer would be educated enough to understand their role, so they weren’t putting people at risk. There would be follow-ups, and the tools necessary would be available, so the health and safe food chain stayed intact at a minimal, if not free cost, because it becomes very expensive and time-consuming to make sure all of these things are run properly.”
- “If corporations could relax and let local, individual stores work with local farmers and allow a local farm to supply to a grocery store--that would help. The thing is uniformity doesn’t exist--local food is diverse.”
- “Farmers would get first bid on procurements on schools and hospitals. Getting GAP certified and things sourced locally. We’d have transportation for all with bus lines that went specifically to farmers markets and grocery

stores, with no connecting line! Everyone would be happy and healthy and connected with one another.”

Some stakeholders suggested that the local and regional governments should support farmers and educate consumers with grants and sponsorships. Another stakeholder suggested that businesses can be investors.

- “If there’s a way to keep the costs down for those individuals who can really benefit from it with grants or if farmer’s markets can get sponsors, then that would be great. Businesses need to know why it’s important to sponsor your employees in giving them access to food and farm shares and also educating businesses on why they need to support these farmers. There should be a way to subsidize that through local governments or grants or corporate sponsorships. Find a champion who truly believes in food access.”
- “Build relationships first and then incentivize with food opportunity, job opportunity, work or volunteer hours. Make it fun and engaging. It’s not a chore. We need to be culturally sensitive and appropriate, too. I like kids to think they’re not learning.”
- “Maybe if there were bigger grocery stores and we could connect more with them, like there could be a community space in the grocery store where workshops can be held. This is a conversation that has to happen for many years before any impact is made...Outside of consumers, connecting with schools and kids is important.”

Other stakeholder recognized the importance of education and having active programs and youth participation.

- “A little more involvement with more programs on educating people how to cook. Younger people don’t grow up in households cooking, so no one knows how. Most of my employees don’t grow up in households where there was cooking; their passion comes from TV perhaps.”
- “Make sure that people can get around and can be active and grow gardens and be outdoors and be safe and be healthy. We can’t just talk about eating healthy without mentioning the activity part too. Be all inclusive, activity area built around a garden area. Government partners cannot be afraid of failure. Sometimes you’ll step in a pile, but you can’t be scared. You have to keep trying and do the next thing. Do another creative idea. Don’t be afraid of failure.”

One stakeholder brought up many necessary points in their vision, stating that the regional and local governments need to support local food more because the stakeholders cannot keep doing it alone.

- “More farmers who can make a living farming and more people who want to support them. Whether that’s through schools, restaurants, and having it be a

part of the conversation at a locality and regional level. We need to make a concerted effort to talk about it in land use planning. There’s open space land dedicated to agriculture, but it’s for the wealthy, that’s who can afford it. I’d like to hear that there’s support and conversation about food access and production on a regional level or if a locality steps up and shows that it’s needed and there from an economic or tourism standpoint. A small organization can’t do it alone with little support. We’ve made headway, but there’s a downside if it’s assumed [a small organization is] able to do it all [by ourselves].”

With these visions fresh on the reader’s mind, it is with great hope that this report will spark the desire to join their efforts in connecting with one’s community and supporting local food.

**“Roanoke Local”
Regional Food & Agriculture Report**

Prepared by Local Environmental Agriculture Project (LEAP) for the Roanoke Valley-Allegany Regional Commission (RVARC) Regional Local Food Planning Committee
December 2016

APPENDIX C: “ROANOKE
LOCAL” REPORT

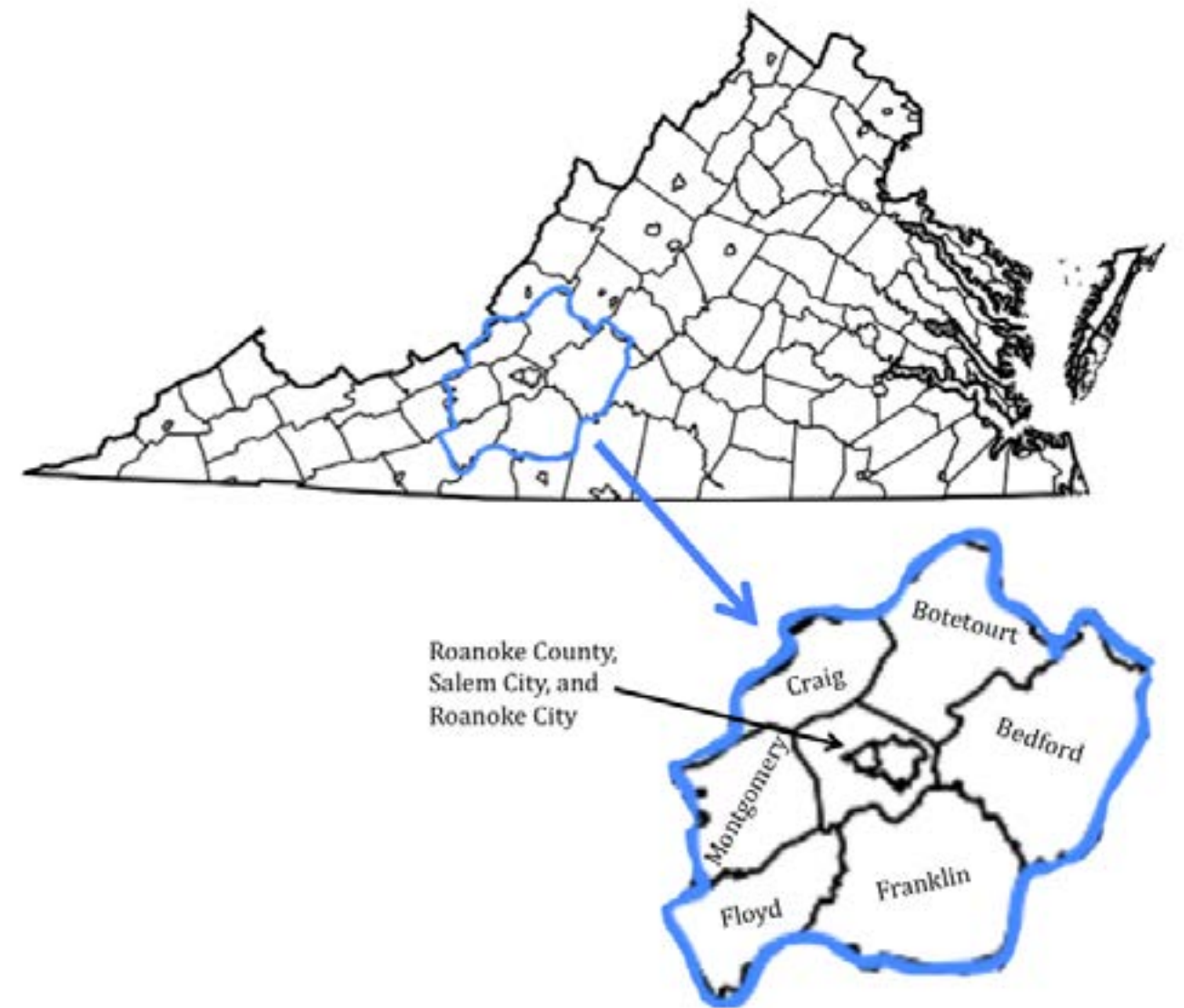


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Section 1: The “Roanoke Local” Program and Region

“The food and farming system is critical to economic vitality and community health however, it is often overlooked and undervalued.”

-Key finding of 2011 Virginia Cooperative Extension Report, “A Community-Based Food System: *Building Health, Wealth, Connection, and Capacity as the Foundation of Our Economic Future*

Local Environmental Agriculture Project (LEAP), a 501c3 non-profit based in Roanoke, Virginia, works to nourish healthy communities and resilient local food systems. As part of this mission, LEAP partners with community organizations, food producers, and consumers to address needs related to local food supply, distribution, and demand in the region.

Drawing on the concept of a “foodshed,” analogous to that of a watershed in studying how food travels from farm to plate, LEAP views the “Roanoke Local” region to include the counties that produce a majority of the local food supply for the cities of Roanoke and Salem. Roanoke and Salem, as the major urban centers in the Roanoke Valley, make up over 25% of the residents in the region (see Table 1). However, there is little food produced in these urban areas. Therefore, to discuss a foodshed, we have to include rural, urban, and periurban communities in the Roanoke Valley and beyond. The Roanoke Local foodshed, for the purpose of this report, includes:

- Roanoke City
- Salem City
- Roanoke County
- Botetourt County
- Craig County
- Franklin County
- Floyd County
- Montgomery County
- Bedford County

As a foodshed is shaped by forces beyond the physical or geographic landscape, it is important to also look at social and economic information when attempting to understand an entire foodshed and its potential to become more localized. Consolidated in Table 1, the characteristics of regional population highlight the potential for the local food economy, and income and poverty statistics show potential economic barriers for accessing local food. For example, Roanoke City may have the largest population, but 20.4% of the population is considered to be in poverty. Therefore, over 20,000 individuals in Roanoke City alone may not prioritize local food purchases over other expenses such as caloric intake and housing.

	Population, 2010	Median Household Income (in 2014 dollars), 2010-2014	Persons in Poverty, 2014
Roanoke City	99,897	\$39,530	20.4%
Salem City	25,432	\$50,590	10.2%
Roanoke County	92,376	\$60,950	8.2%
Botetourt County	33,148	\$63,011	7.8%
Craig County	5,190	\$46,658	12.4%
Franklin County	56,159	\$44,827	16.3%
Floyd County	15,279	\$47,543	14.1%
Montgomery County	94,392	\$44,810	24.8%
Bedford County	68,676	\$56,043	9.4%
Regional Average	--	\$50,440	13.73%
Regional Total	490,549	--	--

Table 1: Overview of Demographic and Economic Information (United States Census Bureau QuickFacts)

It is important to note that Montgomery County hosts Virginia Tech in Blacksburg. The town of Blacksburg had a population of 42,620 in 2010, which included the transient student population (approx. 25,000). It is possible that the student population explains high levels of poverty in Montgomery County as over 46% of the town's population was considered in poverty in 2014. Nearby Christiansburg had a population of 21,041 in 2010, leaving unincorporated Montgomery County at a population of 30,731 (United States Census Bureau QuickFacts).

Over the past five years, a number of organizations and government agencies have conducted food, agriculture, and farming assessments and studies in specific geographic areas throughout the Roanoke Local region (see Appendix A). In the interest of time and resources, we compiled and organized existing data on the region. This regional food report, based on existing data, will create the foundation for discussions around local food system development and planning in the region.

The report contains five major sections. Section 2 provides an overview of agriculture production throughout the seven counties, often in comparison with the state. Section 3 offers the current state of processing and distribution in the region, while section 4 discusses local food access. These three chapters indicate existing local food production, infrastructure, and sales but also provide a broad perspective beyond the local food economy. This broad perspective allows us to analyze our current status, envision future potential, and identify key gaps within the local food system.

The final section, Section 5, reviews select assessments, studies and reports from the region and lists possible projects. This last section includes a preliminary list of stakeholders and will be particularly useful for giving direction to a regional local food system council or working group.

Section 2: Production

According to the 2013 study, The Economic Impacts of Agriculture and Forest Industries in Virginia, and the 2016 New River Valley Agricultural and Agritourism Strategic Plan (NRV Plan), agriculture is Virginia's largest and oldest industry, generating over \$52 billion annually and supporting approximately 310,900 jobs. Further, almost 90% of Virginia's farms are family-owned and -operated (NRV Plan, 2016). There are a number of agriculture assessments that cover a variety of regions across Virginia; however, this assessment pertains only to the Roanoke Local region (the cities of Roanoke and Salem and the seven surrounding counties).

Based on the Catawba Sustainability Center's (CSC) 2015 study, the counties that host the main producers for the Roanoke Valley include all of the Roanoke Local region except Bedford County. We decided to include Bedford County in the Roanoke Local region for three main reasons: (1) compared to the counties included in the CSC study, Bedford County has more existing farms and agriculture land than the remaining six counties and more sales than four of these regional counties (see Table 2), (2) Bedford County completes the circle of counties that surround Roanoke County, and (3) producers are often willing to travel up to 125 miles to for access to a better market (Bendfeldt, personal communication, 2016).

Regional Trends in Farm Numbers, Sizes, and Sales

The following tables and graphs provide an overview of farming and agriculture in the region. This information is not all-inclusive. The data points in this assessment are based on those commonly used in agriculture assessments, like the CSC study. Figures 1, 2, and 3 show regional agriculture trends over a 15-year period, and Table 2 breaks down this same data by county for the year 2012.

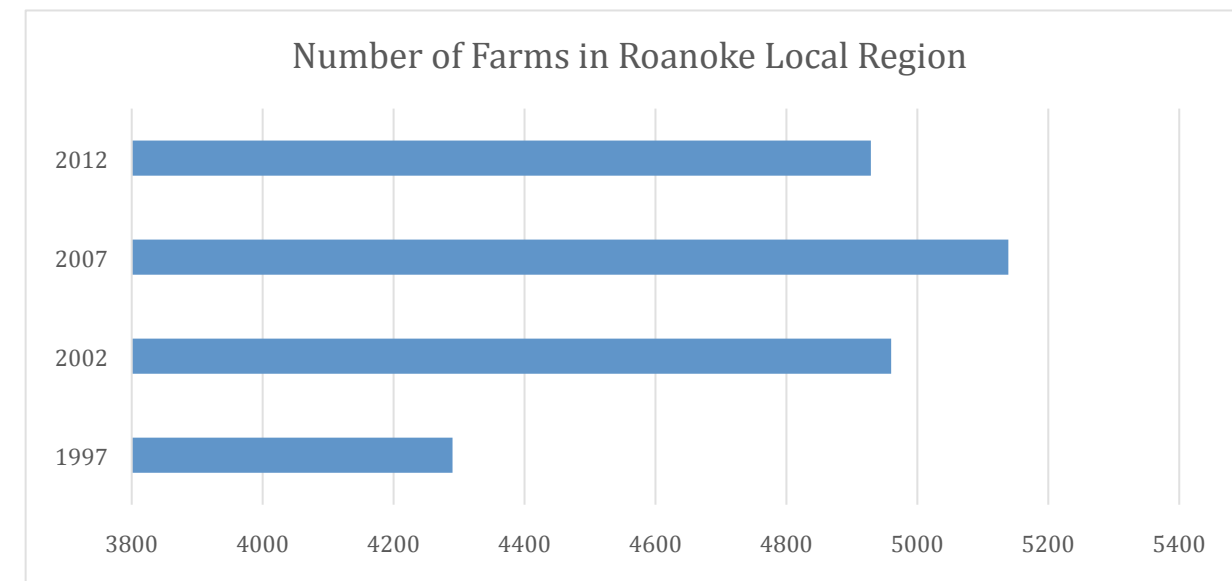


Figure 1: Number of Farms in Roanoke Local Region (2012 USDA Census of Agriculture)

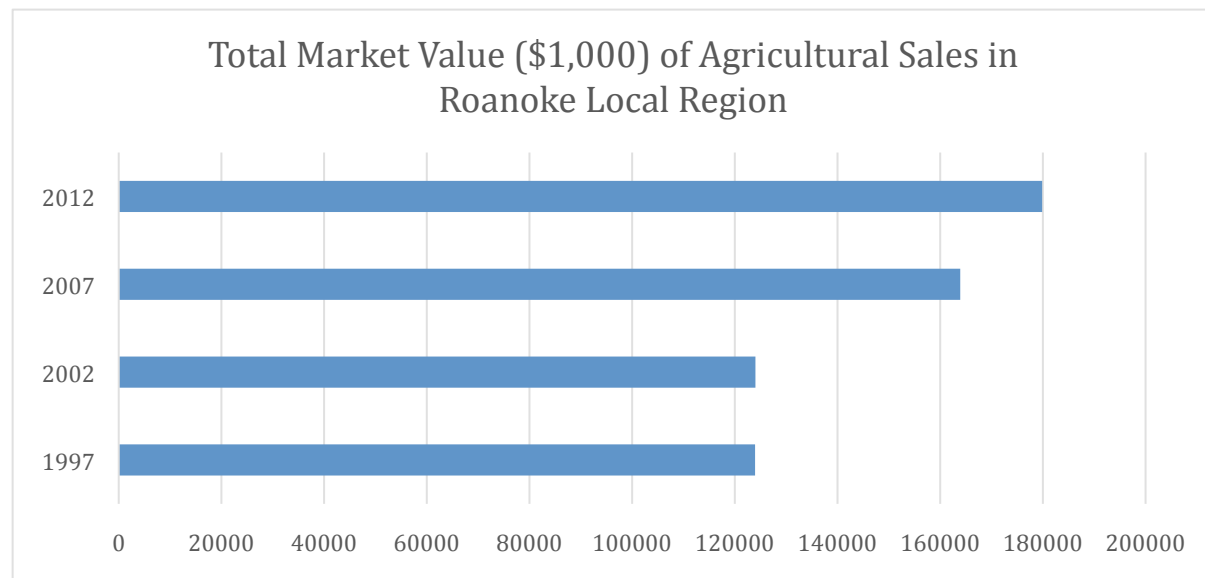


Figure 2: Total Market Value (\$1,000) of Agricultural Sales in Roanoke Local Region (2012 USDA Census of Agriculture)

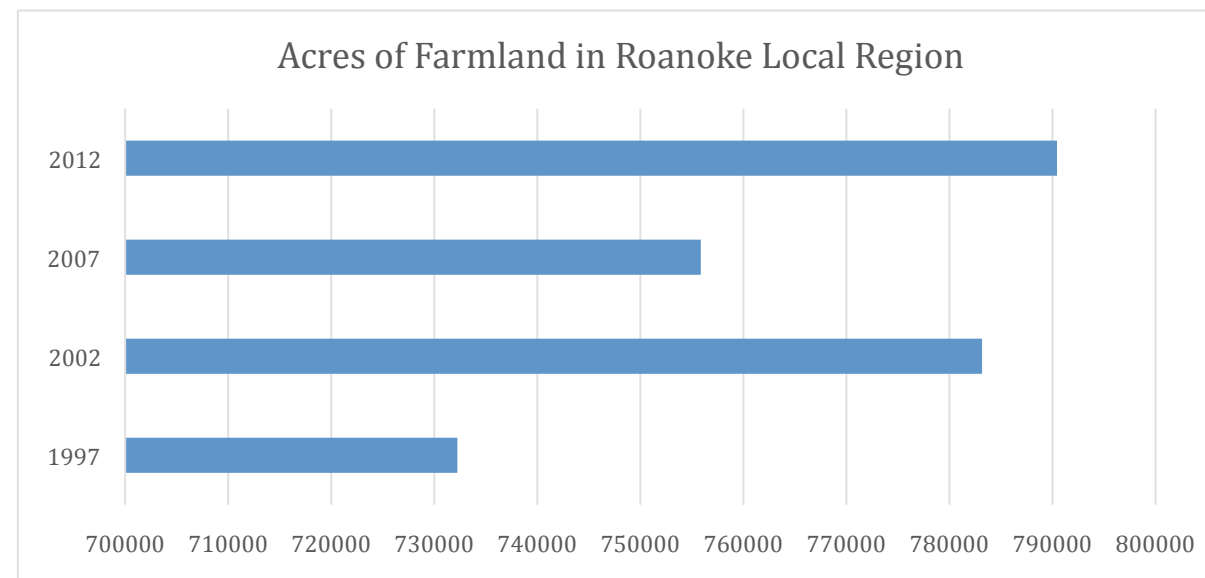


Figure 3: Acres of Farmland in Roanoke Local Region (2012 USDA Census of Agriculture)

In Virginia between 1997 and 2007, very small and very large farms (<\$2,500 and >\$500,000 in annual sales, respectively) increased while small to medium sized farms decreased (10-33%) (see Figure 4). As demand for local foods increases in southwest Virginia, farmers and ranchers continue to struggle for economic viability. From Figures 1, 2, and 3, it is clear that while the number of farms has decreased since 2007, the acres in farmland and market value of crops has increased. These figures can potentially be explained by farmland consolidation, and may help us understand the rise in very large farming operations.

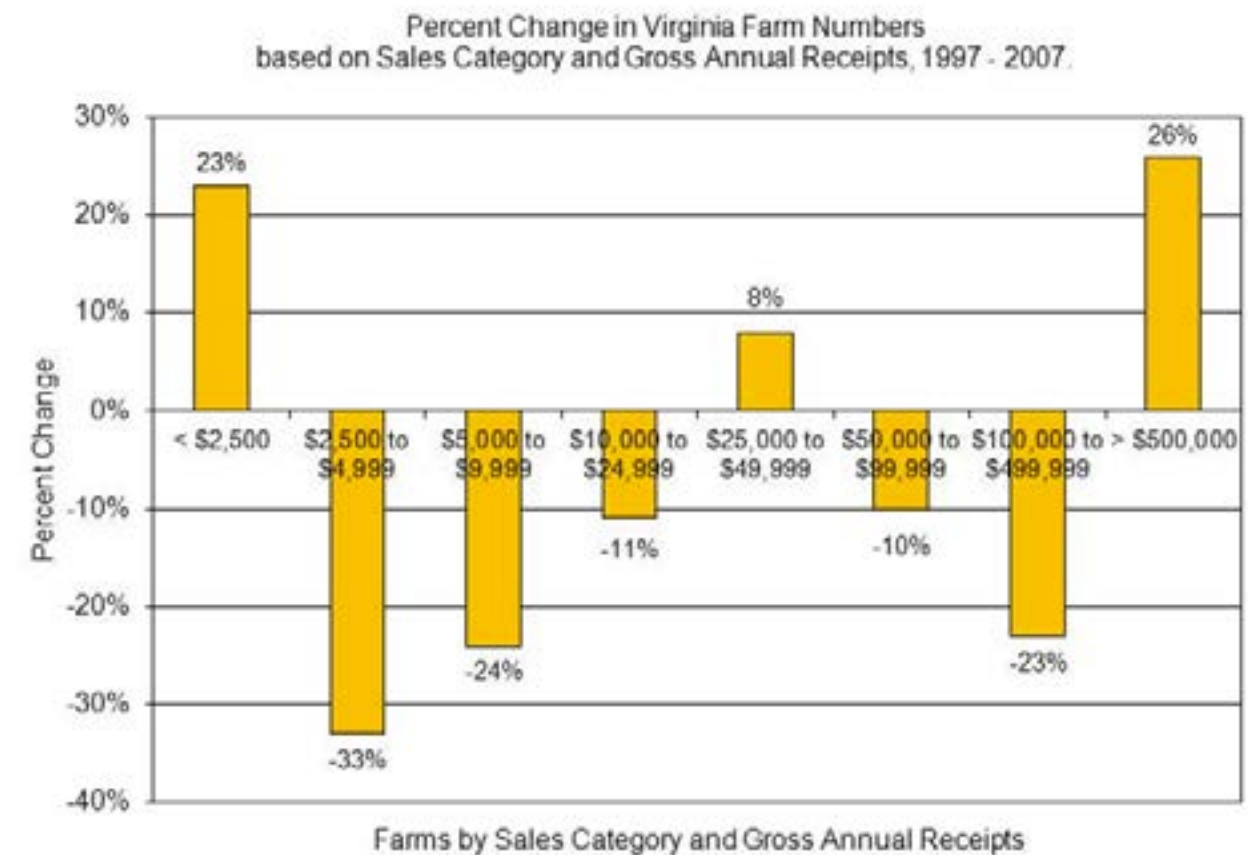


Figure 4: Percent Change in Virginia Farm Numbers, 1997-2007 (Virginia Farm to Table)

	Virginia	Bedford	Botetourt	Franklin	Floyd	Craig	Montgomery	Roanoke	Roanoke Local Region
# of Farms	46,030	1,369	584	1,023	863	207	603	280	4,929
Acres of Farmland	8,302,444	206,534	89,316	164,564	144,657	46,625	107,260	31,486	790,442
Average Size Farm (acres)	180	151	153	161	168	225	178	112	164
Market Value of Agricultural Products Sold (\$1,000)	3,753,287	28,283	18,704	65,442	34,701	4,886	23,707	4,140	179,863

Table 2: 2012 State, County, and Regional Information (2012 USDA Census of Agriculture)

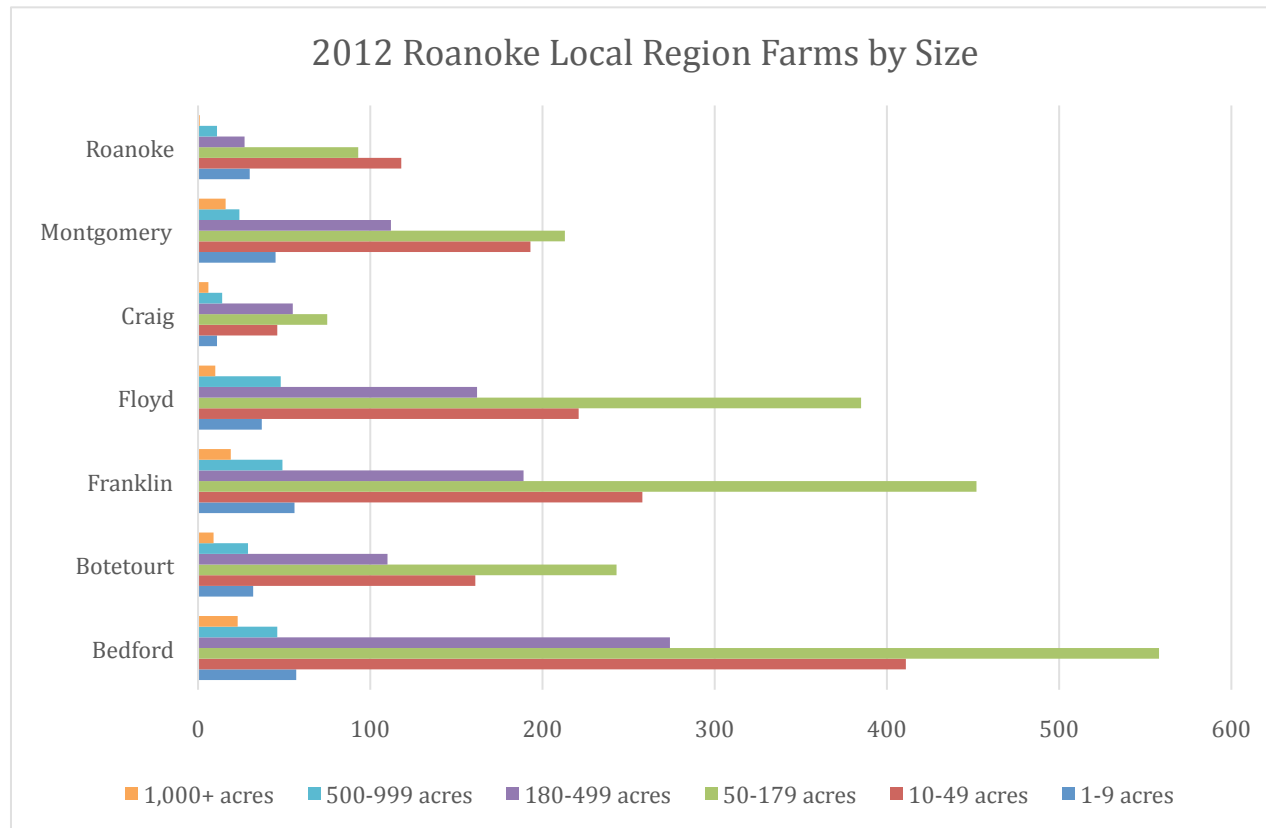


Figure 5: 2012 Roanoke Local Region Farms by Size (2012 USDA Census of Agriculture)

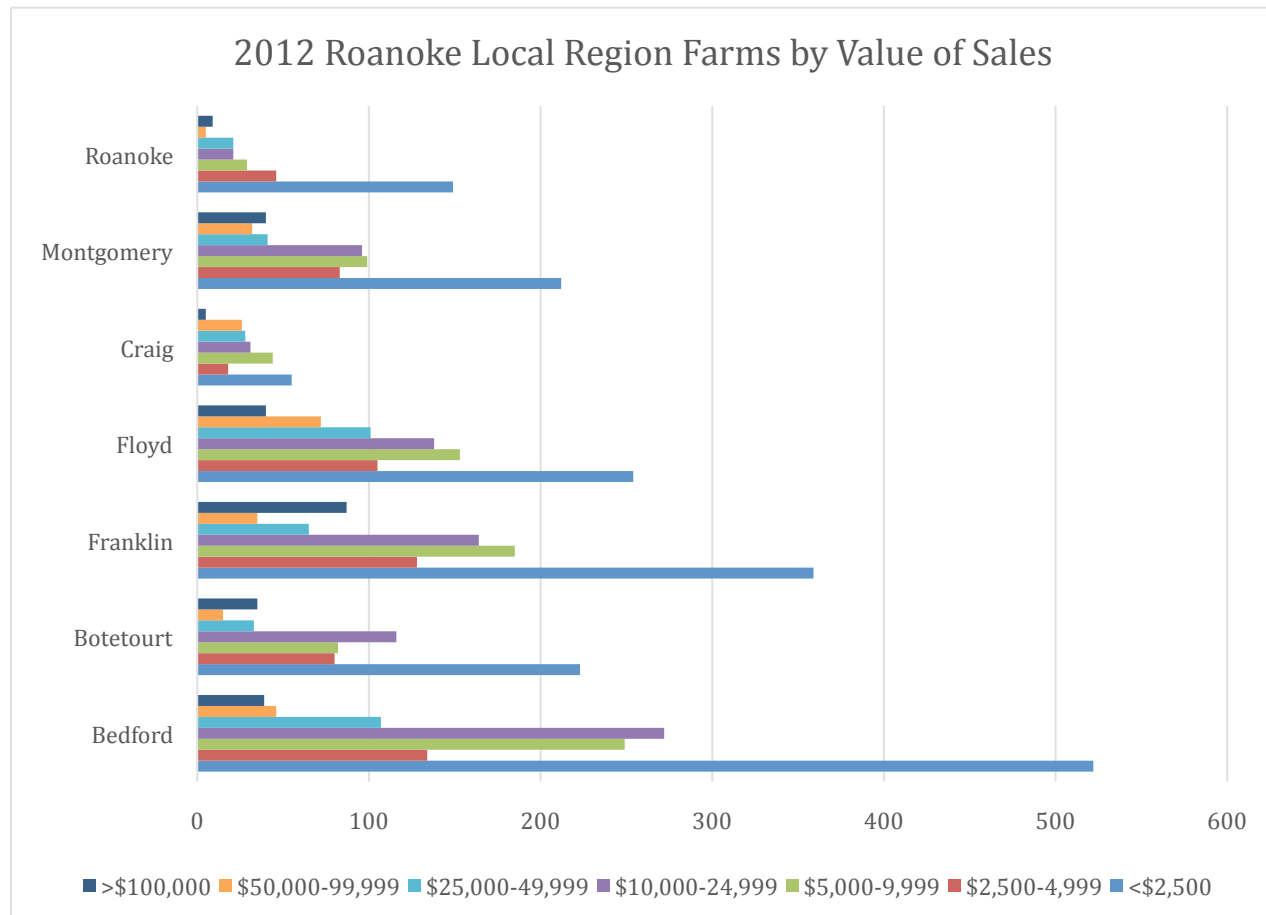


Figure 6: 2012 Roanoke Local Region Farms by Value of Sales (2012 USDA Census of Agriculture)

Reflected in Figures 5 and 6, the majority of farms in the Roanoke Local region are very small (<\$2,500 in annual sales) and a large portion are 50-179 acres. The Botetourt County Agriculture Development Strategic Plan echoes these numbers, noting 53% of Botetourt farmers have fewer than \$5,000 in sales. As the average regional size farm is 164 acres and the average value of sales for regional farms is \$36,491 (see Table 2), it seems the capacity exists to increase revenue among these small farms that currently have low annual sales.

In Virginia, the total market value of products sold reached \$3.75 billion in 2012, and almost \$180 million (4.8%) of that came from Roanoke Local regional farmers (see Table 2). The average value of sales per farm was \$81,540 in the state of Virginia and \$36,491 for regional farmers (see Table 2). Over \$82.3 million in government payments went to Virginia farmers in 2012, and slightly over \$3 million (3.7%) of that went to regional farmers (2012 USDA Census of Agriculture). In comparing land in farms, 9.5% of Virginia’s farm acreage resides in the region (see Table 2).

It is interesting to note that the percentage of Virginia government payments to regional farmers (3.6%) is lower than that of the total value of Virginia sales (4.8%), both of which are significantly lower than the percentage of Virginia farmland (9.5%) in the region (2012 USDA Census of Agriculture). Further, the average value of sales for farms in the region is less than half that of state-wide farmers (2012 USDA Census of Agriculture). These numbers show that agriculture exists in the Roanoke Local region; however, higher-value and government-subsidized agriculture is not happening proportional to the percentage of Virginia farmland. With existing agriculture and the seemingly low value of sales, there is room to expand agriculture and support existing farmers in the region. As the Roanoke Cooperative Extension Unit serving Salem, Roanoke City, Roanoke County, and Botetourt County recently hired the first Agriculture and Natural Resources Extension Agent in four years, there is hope that agriculture will get more attention from Virginia Cooperative Extension.

Top Agriculture Products

Based on USDA Agriculture Census data, in the Roanoke Local region, farmers produced over 2.5 times (in sales value) more livestock, poultry, and their products (\$125,637,000) than crops, including nursery and greenhouse crops (\$50,086,000) in 2012 (see Table 3). Table 4 shows that 81.31% of the harvested cropland in 2012 was in forage crops and less than 1% was in vegetable production and orchards. The remaining 17.74 % of harvested cropland was used to grow corn, wheat, oats, barley, and sorghum for grain, soybeans and tobacco.

	Virginia	Bedford	Botetourt	Franklin	Floyd	Craig	Montgomery	Roanoke Local Region*
Crops	1,360,146	6,950	6,063	14,726	14,354	1,299	6,694	50,086
Livestock, Poultry, & Products	2,393,141	21,333	12,641	50,716	20,347	3,587	17,013	125,637

* Data for Roanoke County was withheld to not disclose data for individual farms.

Table 3: Value of Sales for Each County (\$1,000) (2012 USDA Census of Agriculture)

Category of Production	Acreage
Acres of Farmland	790,442
Total Cropland (acres)	234,240
Farmland, not Cropland (acres)	556,202
Harvested Cropland (acres, broken down by category below)	205,893
<i>Forage Crops (hay, haulage, grass silage, greenchop)</i>	167,416
<i>Vegetables</i>	554
<i>Orchards</i>	1,397
<i>Other crops harvested (including corn, wheat, oats, barley, & sorghum for grain, soybeans, and tobacco)</i>	36,526

Table 4: Regional Cropland Production in Acres and by Category (2012 USDA Census of Agriculture)

In line with the regional trends in cropland usage (see Table 4), in the 2015 Botetourt County Agriculture Development Strategic Plan, Botetourt County was recognized as a leading state producer of beef cattle and related forage crops. Per this report, Botetourt County has approximately 270 beef cattle farms, primarily cow and calf operations by small, part-time farmers with an average of 66 head per farm and 11 dairy farms. Though the county was identified as a leading producer, the authors recognized that the overall production trend had been downward from about 26,500 head of cattle in 1975 to about 21,500 in 2013. Farm employment has also decreased in the county from about 19% of the total county employment in 1969 to about 4% in 2013.

In Virginia, the top three products sold by value (see Table 5) are broilers, cattle and calf, and turkeys. The Roanoke Local region represents 12.6% of Virginia cattle and calf farms and only 4.6% of broilers farms in 2012 (USDA Census of Agriculture), suggesting that the state-wide numbers do not necessarily correspond to the top agriculture products in the region. However, the region does parallel statewide agriculture products in that animal agriculture dominates crop production while forage and grain production far surpass that of fruit and vegetables.

Further, the following excerpt from The Economic Impacts of Agriculture and Forest Industries in Virginia, a 2013 report, offers an explanation for why regional numbers might not parallel statewide numbers and why vegetable production may be limited in the Roanoke Local area.

“Generally speaking, crop farming is more prevalent in the eastern half of the state where growing conditions are better, while livestock and poultry farming is more common in the west where steeper slopes are less suitable for intensive cultivation. Cattle and dairy farming occurs more often in the Shenandoah Valley and Southwest” (Executive Summary).

Top 35 Products Sold by Virginia Farmers (Based on 2015 cash receipts)			
Rank	Commodity	State receipts (\$1,000)	% of State Receipts
	<i>All commodities</i>	3,780,015	100.0
	<i>Animals and products</i>	2,568,995	68.0
	<i>Crops</i>	1,211,020	32.0
1	Broilers	791,775	20.9
2	Cattle and calves	676,037	17.9
3	Turkeys	373,628	9.9
4	Dairy products, Milk	342,022	9.0
5	Miscellaneous crops	302,411	8.0
6	All other animals and products	210,000	5.6
7	Soybeans	207,745	5.5
8	Corn	169,674	4.5
9	Chicken eggs	122,456	3.2
10	Hay	121,325	3.2
11	Tobacco	111,869	3.0
12	Wheat	75,492	2.0
13	Cotton lint, Upland	55,941	1.5
14	Hogs	47,352	1.3
15	Apples	34,465	0.9
16	Tomatoes	34,100	0.9
17	Peanuts	20,722	0.5
18	Grapes	17,940	0.5
19	Potatoes	17,245	0.5
20	Cottonseed	10,903	0.3
21	Corn, Sweet	7,342	0.2
22	Peaches	6,834	0.2
23	Beans, Snap	4,979	0.1
24	Barley	3,696	0.1
25	Watermelon	3,586	0.1
26	Cabbage	2,624	0.1
27	Farm chickens	2,576	0.1
28	Trout	1,610	0.0
29	Honey	1,293	0.0
30	Cucumbers	1,280	0.0
31	Oats	427	0.0
32	Mushrooms	421	0.0
33	Wool	152	0.0
34	Mink pelts	87	0.0
35	Mohair	6	0.0

Table 5: Top 35 Products sold by Virginia farmers, 2015 (USDA ERS Farm Income and Wealth Statistics)

Agriculture Industry Demographics

Data obtained by the Virginia Tech Office of Economic Development offers insight on crop production, animal agriculture, and aquaculture in the Roanoke Local region. It should be noted that the USDA Census of Agriculture recorded 4,929 farms in 2012 (see Table 2) and the following statistics are based off 56 establishments in 2015. The data set included a jobs multiplier of 1.21 as related to these operations. Also from this data set, between 2014 and 2015, related jobs decreased by 0.7%.

In 2016, 83.4% of the related jobs were described as “Farmers, Ranchers, and Other Agricultural Managers,” 7.9% were “Farmworkers and Laborers [for] Crop, Nursery, and Greenhouse [Industries]”, and 0.9% were “Farmworkers [for] Farm, Ranch, and Aquacultural Animals [Industries].” An overwhelming 74.4% of those in agriculture were male and 94.6% were white. Not surprisingly, 71.4% of workers were 45+ years old, while only 13% were 19-34 (Virginia Tech Office of Economic Development, Emsi Q2 2016 Data Sets, September 2016). Paralleling these findings, the 2012 Census of Agriculture reported the typical Virginia farmer was 59.5 years old.

From these statistics and the recent reduction in agricultural jobs, it is easy to see there is a need for agricultural programming and recruitment, specifically targeted to younger generations, women and people of color.

Direct Markets

Large scale animal and crop production in this region is typically structured for wholesale markets. For fruit and vegetable production (also referred to as “specialty crops”), many Roanoke Local regional farmers rely on local wholesale accounts and retail direct markets. In the Roanoke Local region, farms with direct sales have increased between 2007 and 2012 from 5.25% to 8.12% of total farms (see Table 6). From this same data set, direct sales have increased from 1.27% to 1.42% of the total market value of sales. Direct sales include roadside stands, farmers markets, pick-your-own, and door-to-door sales, but not craft items or processed products such as jellies, sausages, and hams.

	2007	2012
Number of Farms	5,139	4,929
Number of Farms with Direct Sales	270	400
Percent of Farms with Direct Sales	5.25%	8.12%
Total Market Value (\$1,000)	\$163,905	\$179,863
Direct Sales (\$1,000)*	\$2,082	\$2,548
Percent of Direct Sales	1.27%	1.42%

Table 6: Roanoke Local Regional Farms with Total Market Value vs. Direct Sales, 2007 & 2012 (USDA National Agriculture Statistics Service Quick Stats)

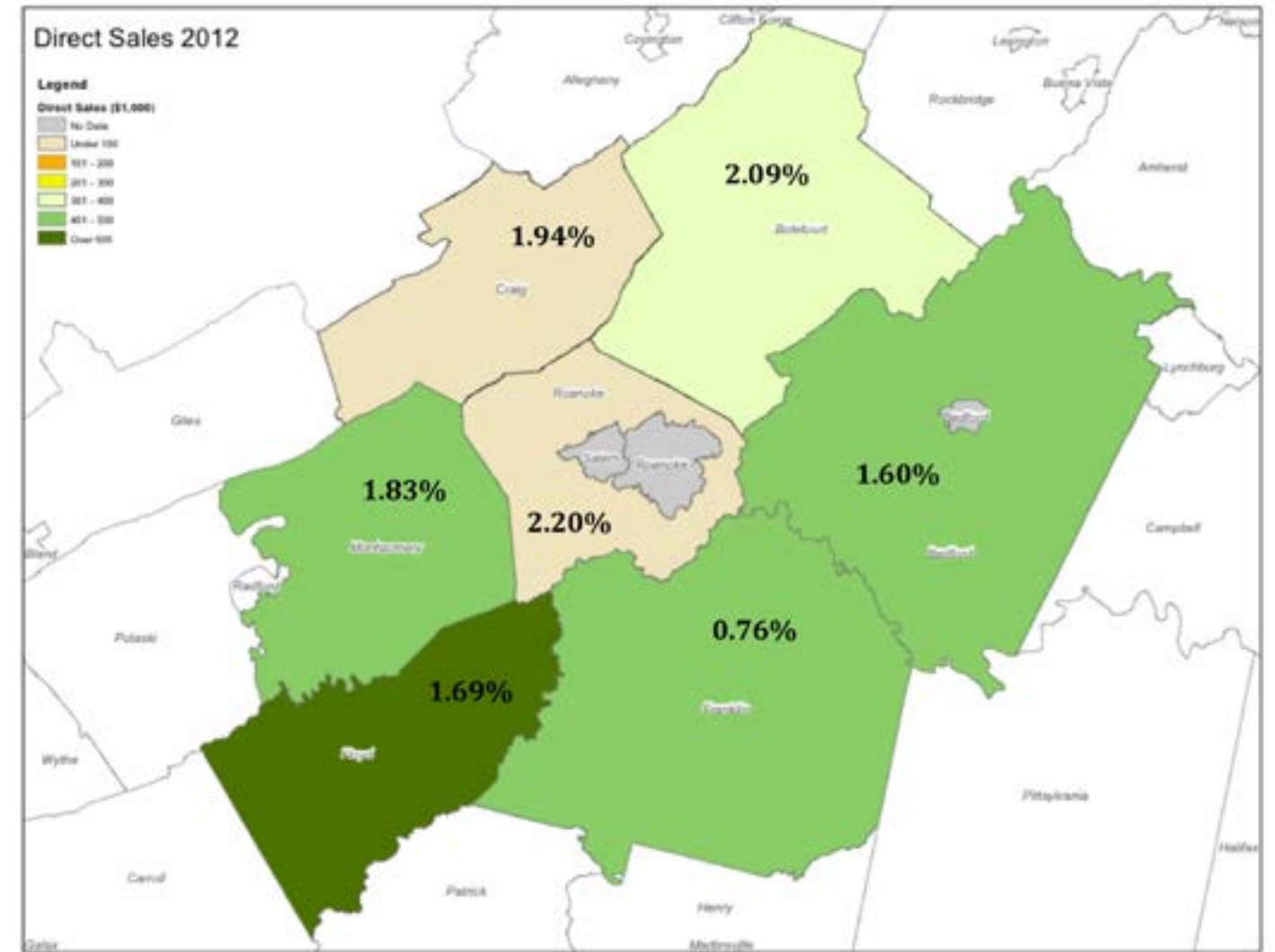


Figure 7: Regional Breakdown of Direct Sales by County with Percent of Sales from Direct Sales, 2012 (USDA Census of Agriculture; RVARC, 2016) any way to make key bigger?

The 2015 report to congress, “Trends in Local and Regional US Food Systems,” states that farm business survival rate is low. The report also mentions that census data showed that farmers with direct marketing to consumers had a greater chance of reporting positive sales in 2007 and 2012 than those who marketed through traditional channels. Direct marketing was also associated with higher business survival rates among beginning farmers; however, in both cases, the businesses grow much slower. As the average farm only received \$0.17 of every dollar spent on domestically produced foods in 2014 (USDA ERS, Food Dollar Series, 2016), there is potential for direct markets to shorten the food value chain and increase the farmer’s share of food dollars.

Economic Impact of Local Food Purchases

In studying the economic impact of local food purchases, there are numerous models and multiplier numbers used across the US. These multipliers are based off the assumption that local farmers and businesses are more likely to make purchases through other local businesses than are the larger more corporate agriculture businesses. For example, if each local farmer or business owner reinvests 40% of their income in the local economy, that offers a multiplier of 1.66 (Example: farmer receives \$1 in local

food purchases, the farmer then reinvests \$0.40 of the original dollar in a local business, that business owner then reinvests \$0.16 of the original dollar in another local business, etc. until a total of \$1.66 is circulated throughout the economy). The numbers 1.65 and 1.35 are often quoted as the difference in impact of local versus more conventional grocery chains, including direct and indirect benefits (E. Bendfeldt, personal communication, 2016).

In a 2006 study on Black Hawk County, Iowa regional farmers, the Leopold Center for Sustainable Agriculture researchers found that for every \$1 spent on research and outreach about local food systems, \$14.70 worth of local food was then purchased. The study also found that local restaurants that bought more than 70 percent of its food items from Iowa farms had a job income multiplier of 1.54, compared to 1.2 for the typical Iowa restaurant. In the 2011 report to Congress on US local food trends, they showed that the multiplier impacts in New York State from increased demand for food hub goods and services ranged from 1.82 to 1.63. The report noted these multipliers were higher than those of industries such as wholesale trade and truck transportation.

For economic impacts related to jobs, a 2015 report called “The Economic Contribution of the Dairy Industry in Virginia” has shown that for every \$1 million of output in dairy cattle and milk production, over 16 dairy industry jobs are supported (including 77% direct employment and 23% employment through value-added businesses) (Rephann, 2015). The Virginia Poultry Federation has shown that for each on-farm job, the poultry industry supports 7 off-farm jobs (E. Bendfeldt, personal communication, 2016). From the 2013 report on the economic impact of agriculture and forestry in Virginia, every job in these industries (a total impact of \$70 billion providing nearly 415,000 jobs) supports 1.6 jobs elsewhere in Virginia’s economy. From the 2011 report to Congress on US local food trends, farmers markets can produce a job multiplier effect ranging from 1.41 to 1.78, meaning that each full-time position created by the market supports a part-time job in another sector.

In the Roanoke Local region, there are a number of existing local food markets and related infrastructure components (see Figure 8). Figure 8 reflects opportunities for regional farmers to sell to the local market through food hubs, farmers markets, and restaurants. A list of markets in Figure 8 is included in the appendices.

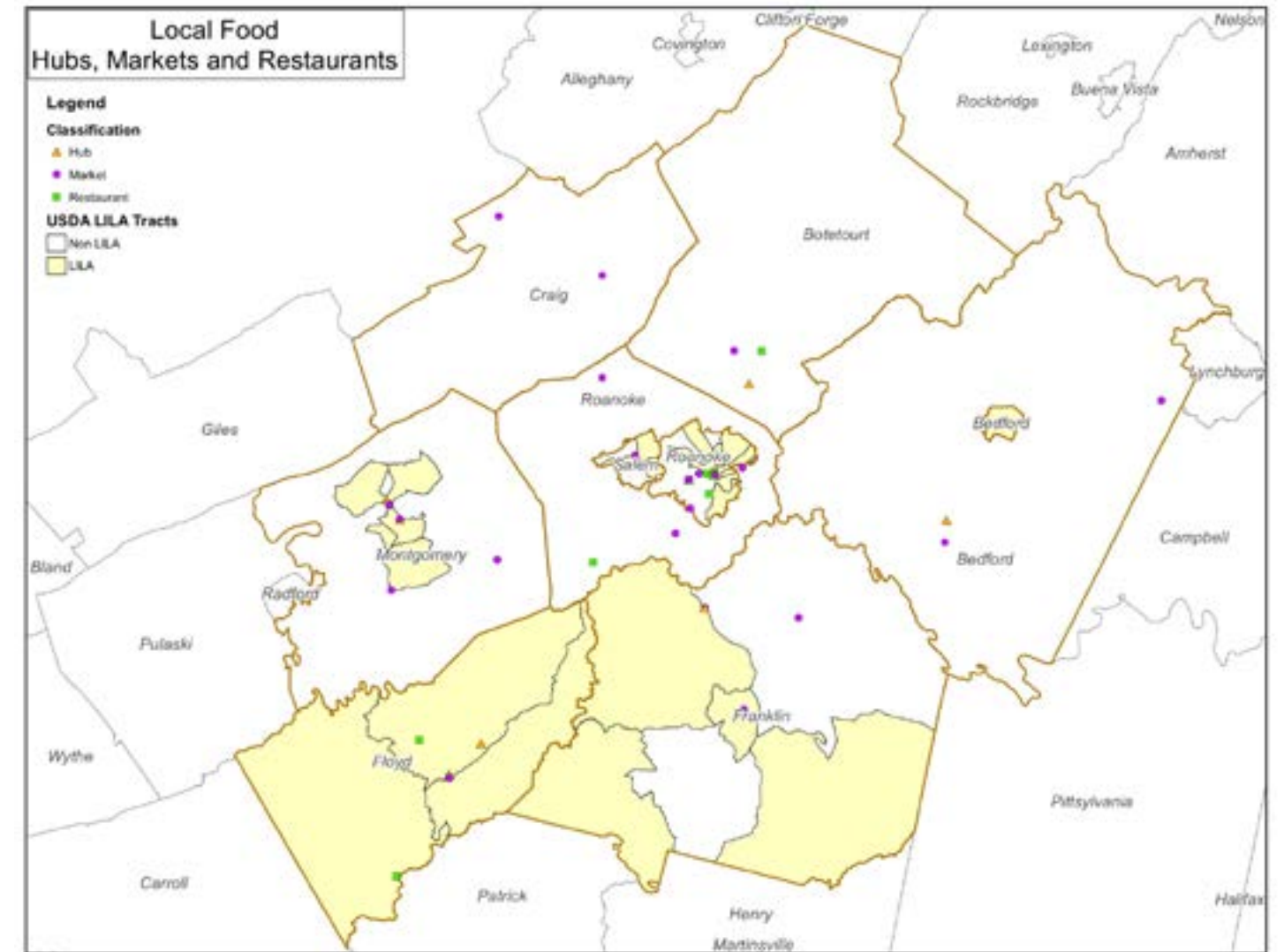


Figure 8: Local Food Hubs, Farmers Markets, and Locally-Sourcing Restaurants in the Roanoke Local Region (RVARC, 2016)

With existing and successful regional food markets (see Figure 8) but less than 2% of regional sales coming from direct sales (see Table 6), there is tremendous potential to redirect existing agriculture efforts toward supplying the Roanoke Local foodshed. Further, increased success rates of farms with direct sales coupled with the existing research on the positive economic impacts of agricultural development should persuade regional planners to include local food systems and agriculture in future economic development strategies.

Section 3: Processing and Distribution

Processing

Displaying data obtained by the Virginia Tech Office of Economic Development, Tables 7 and 8 show an overview of food processing in the Roanoke Local region by industry and then by county. It is interesting to note that there are no Fruit and Vegetable Preserving and Specialty Food Manufacturing industries in the entire region. Further, with aquaculture as an up and coming industry in the region, there are no Seafood Product Preparation and Packaging businesses.

Description	Current Total Earnings	2015 Establishments	2014 Jobs	2015 Jobs	2014 - 2015 Change	2014 - 2015 % Change
Animal Food Manufacturing	\$52,351	6	172	179	7	4%
Grain and Oilseed Milling	\$48,180	3	34	41	7	21%
Sugar and Confectionery Product Manufacturing	\$63,886	1	44	23	-21	-48%
Fruit and Vegetable Preserving and Specialty Food Manufacturing	Insf. Data	0	<10	<10	Insf. Data	Insf. Data
Dairy Product Manufacturing	\$28,815	2	25	19	-6	-24%
Animal Slaughtering and Processing	\$13,443	5	33	47	14	42%
Seafood Product Preparation and Packaging	Insf. Data	0	<10	<10	Insf. Data	Insf. Data
Bakeries and Tortilla Manufacturing	\$42,701	4	478	503	25	5%
Other Food Manufacturing	\$30,107	4	103	110	7	7%
Beverage Manufacturing	\$51,615	13	409	552	143	35%
TOTAL		37	1,313	1,490	177	13%

Table 7: Food Processing Earnings, Establishments, and Jobs in Roanoke Local region by Industry (Virginia Tech Office of Economic Development, Emsi Q2 2016 Data Set, September 2016)

To frame the 2015 job market in food processing, it is interesting to note that 33.75% of regional jobs are in only 4 bakeries (10.81% of total establishments). Additionally, 37.05% of jobs are employed by beverage manufacturing industries. With Pepsi potentially employing a large number of those jobs, this leaves many processing employees vulnerable to mass layoffs through plants closing. Further, there are few job opportunities listed in whole food processing.

Locality	Current Total Earnings	2015 Establishments	2014 Jobs	2015 Jobs	2014 - 2015 Change	2014 - 2015 % Change
Floyd County, VA	\$25,479	7	95	108	13	14%
Roanoke City, VA	\$51,330	6	629	723	94	15%
Botetourt County, VA	\$49,279	4	81	147	66	81%
Montgomery County, VA	\$44,394	5	212	206	-6	-3%
Bedford County, VA	\$37,049	6	122	125	3	2%
Roanoke County, VA	\$44,257	6	122	125	3	2%
Franklin County, VA	\$21,914	3	31	34	3	10%
Salem City, VA	\$59,324	0	20	23	3	15%
Craig County, VA	\$0	0	0	0	0	0%
TOTAL		37	1,313	1,490	177	13%

Table 8: Food Processing Earnings, Establishments, and Jobs in Roanoke Local region by County and City (Virginia Tech Office of Economic Development, Emsi Q2 2016 Data Set, September 2016)

As seen in Table 8, Craig County does not host any processing businesses. Salem shows no businesses, but it does show income from food processing. The source of this discrepancy is unclear. Both Table 7 and 8 show that between 2014 and 2015, there has been an increase in food processing jobs in the region.

From expanded industry data that included 90 food processing businesses (excluding the discrepancies of a corporate office and therapeutic massage business), 11 wineries, 7 breweries, one coffee and tea manufacturer roaster, and one cider business were found in the region. Table 9 shows the breakdown of livestock and livestock product industries in the region, though it is unclear if these businesses cater to regional farmers or not. Interestingly, there seems to be one Other Animal Food Manufacturing business in Craig County, contrary to the previous table.

Locality	Animal (except poultry) Slaughtering	Meat Processed from Carcasses	Rendering and Meat Byproduct Processing	Fluid Milk Manufacturing	Other Animal Food Manufacturing
Roanoke City	(1) Beef Products Venture; (2) Valleydale Foods; (3) Overstreet Food, Inc	(1) Wheat First Butcher Singer		(1) Pet Dairy	
Salem City			(1) Valley Proteins, Inc		
Franklin County		(1) J & P Meat Processing			
Bedford County	(1) Pride of Virginia*				
Floyd County	(1) Willis Village Market, Inc; (2) Thompson Meat Processing, Inc				(1) Vaughns Mill, Inc
Montgomery County					(1) Big Spring Mill, Inc
Craig County					(1) Thorvin Kelp Usa

* Evington, Virginia is technically in Campbell County why included here instead of below?

Table 9: Breakdown of Animal Processing in Roanoke Local Region (Virginia Tech Office of Economic Development, Emsi Q2 2016 Data Set, September 2016)

Not included in this data set from Virginia Tech Office of Economic Development are a handful of other slaughterhouses in and around the region. Bedford County has hosted Ecofriendly Foods, LLC, a USDA-inspected processing facility that sourced locally and redistributed through farmers markets and retail outlets. While this business has worked with LEAP in the past, it is currently unclear how active the facility is. New in 2016, a mobile poultry processing unit is now available in the region for small to mid-sized producers to help increase profits and market access. Per conversations with regional farmers, many also process animals at Allegheny Meats in Monterey and Seven Hills Food (opened in 2015) in Lynchburg who sells to Local Food Hub in Charlottesville.

The Region 2000 Strategic Plan for Agriculture and Forestry Economy (2014) indicated that “the Region currently has access to a small variety of meat processing facilities for various livestock... However, as more producers examine expanding their direct to consumer offerings in meats, the current processing capacity will be strained or potentially inadequate.” It is unclear the impact of Seven Hills Food has had on regional producers and other meat processing facilities. Included in the Region 2000 study was Peak’s custom-only slaughterhouse as well as Schrock’s USDA-inspected and custom beef and deer slaughterhouse, both near Lynchburg in Campbell County.

The Appalachian Rising Farmers Cooperative will be developing procedures and doing test runs in the fall of 2016. Further, the Blue Ridge Plateau group is updating a USDA-inspected slaughterhouse plan

with the support of Downstream Strategies. The research includes some of the Roanoke Local counties and continues into North Carolina. With additional input from the Virginia Tech Meatlab and Agricultural Economics department, the group hopes to start reaching out to investors in Summer 2017 for the facility’s construction near exit 19 on I-77 in Virginia. The Blue Ridge Plateau group is also working with the Virginia Tech Department of Food Technology with hopes of creating a local company to conduct food handling and processing technology trainings in the region. Currently, most of these companies have to be flown in from out of state for necessary trainings. For more information on what the Blue Ridge Plateau group is working on, see Appendix C.

Finally, the River Ridge Land and Cattle Company has received funding from both the Governor’s Agriculture and Forestry Industries Development fund and the Virginia Tobacco Region Revitalization Commission to jump-start construction on a beef and pork processing plant in Independence (Grayson County). This will be the first plant in Virginia able to provide local farmers value-added processing such as jerky and smoked meats, but will have no kill-floor. With investor buy-in, construction should be complete by February or March of 2017.

As for produce processing and preservation, The Kitchen in Roanoke City (run by LEAP), the New London Community Cannery in Bedford County, and the Carol County Cannery in Hillsville all offer a space for community members or business owners to process value-added goods. For an example of a large-scale cannery and commercial kitchen promoting local food processing, the Prince Edward County Cannery and Commercial Kitchen located in Farmville offers a space for home users as well as commercial businesses. Franklin County hosts two community canneries, and there was once a community cannery in Riner; however, it’s been closed for a number of years.

Virginia Produce Company, Inc. and the Southwest Virginia Farmers Market (SWVA FM), both in Hillsville (Carol County), are currently purchasing produce from Virginia farmers. However, due to seasonality and other factors, also purchases from other producers when necessary. As SWVA FM packages over \$40 million of food each year and Virginia Produce Company is even larger, these two organizations are mainly large packaging facilities. Interestingly, local food aggregator Good Food Good People does sometimes purchase local products from SWVA FM. (J. Moles, personal communication, 2016).

In 2011, Sustain Floyd proposed a large value-added processing facility for Floyd County; however, the project was not carried forward. For a small-town non-profit, the construction and management needs were found to be beyond capacity, and the project lacked the promise of positive cash-flow for such a large undertaking. Therefore, it was determined that local-regional government and private sector support would be essential for success. Also realized was that most value-added producers do not use local ingredients, thus the local farmer would not necessarily benefit from construction. An interesting corollary, stakeholder conversations lead a number of individual organizations (including Floyd EcoVillage, Beegle Barbecue, Riverstone Organic Farm, and Plenty!) to build their own kitchens to start experimenting on a small-scale and local level.

In 2016, funding was awarded to convert the former Prices Fork kindergarten, cafeteria, and gymnasium into what is being named the Old School Food Center (Food Center). The Food Center will host five projects: (1) a Commercial Incubator Kitchen available for rent to create or expand value-added food businesses, (2) a Farm-to-Table Restaurant committed to sourcing 50-80% of it’s ingredients locally, (3) a Retail Market for products created in the Kitchen and Restaurant as well as from other local businesses, (4) an on-site production operation for Rising Silo Brewery to sell through the Restaurant and Retail Market, and (5) a Business Competition and Support Services program to provide workshops, consultation, start-up funds, and potentially a space in the Food Center to operate out of. This last program is designed to support food-related ventures in or from low-income communities.

There is clearly food processing happening in the Roanoke Local region; however, many businesses are not necessarily using locally grown or raised agricultural products. For example, Pepsi Bottling Group has two locations, Reddy Ice has three locations, and Kroger Bakery has 14 locations in the region. Of the 90 processing industries listed, 53 (59%) were listed as either soft drink manufacturing (Pepsi and Deb's Frozen Lemonade), other snack food manufacturing (Utz and Pretzel Twister), commercial bakeries (including Bimbo), or retail bakeries (44 of the 53). Again, 13 (14%) were listed as animal processing facilities and 0 (0%) businesses were listed under fruit or vegetable processing (Virginia Tech Office of Economic Development, Emsi Q2 2016 Data Set, September 2016).

It is important to note that extra foods from these processing businesses are then distributed through the emergency food security safety net, including food banks. This redistribution of high-calorie, nutrient-poor foods disproportionately affects low-income and food insecure individuals.

Distribution

Tables 10 and 11 provide an overview of distribution and transport in the Roanoke Local region by industry and then by county. This data does not separate out non-food related distribution.

Description	Current Total Earnings	2015 Establishments	2014 Jobs	2015 Jobs	2014 - 2015 Change	2014 - 2015 % Change
General Freight Trucking, Local	\$41,415	43	669	677	8	1%
General Freight Trucking, Long-Distance, Truckload	\$44,003	37	742	685	-57	-8%
General Freight Trucking, Long-Distance, Less Than Truckload	\$71,470	19	707	782	75	11%
Specialized Freight (except Used Goods) Trucking, Local	\$57,553	40	709	691	-18	-3%
Specialized Freight (except Used Goods) Trucking, Long-Distance	\$66,280	15	146	160	14	10%
General Warehousing and Storage	\$39,469	20	1,489	1,400	-89	-6%
Refrigerated Warehousing and Storage	\$51,190	2	326	331	5	2%
Farm Product Warehousing and Storage	Insf. Data	0	<10	<10	Insf. Data	Insf. Data
Other Warehousing and Storage	\$22,747	4	35	33	-2	-6%
TOTAL		180	4,823	4,761	-62	-1%

Table 10: Distribution Earnings, Establishments, and Jobs in Roanoke Local region by Industry (Virginia Tech Office of Economic Development, Emsi Q2 2016 Data Set, September 2016)

County	Current Total Earnings	2015 Establishments	2014 Jobs	2015 Jobs	2014 - 2015 Change	2014 - 2015 % Change
Botetourt County, VA	\$49,220	17	771	766	-5	-1%
Roanoke City County, VA	\$51,879	42	1,850	1,768	-82	-4%
Franklin County, VA	\$38,367	28	363	361	-2	-1%
Roanoke County, VA	\$60,086	26	811	824	13	2%
Floyd County, VA	\$25,435	12	85	86	1	1%
Bedford County, VA	\$44,927	24	422	454	32	8%
Salem City County, VA	\$51,142	14	275	277	2	1%
Craig County, VA	\$20,137	0	<10	10	Insf. Data	Insf. Data
Montgomery County, VA	\$37,432	18	237	214	-23	-10%
TOTAL		180	4,823	4,761	-62	-1%

Table 11: Distribution Earnings, Establishments, and Jobs in Roanoke Local region by County and City (Virginia Tech Office of Economic Development, Emsi Q2 2016 Data Set, September 2016)

From Tables 7, 8, 10, and 11, the distribution sector employs over three times the number of people as the processing sector. Interesting to note from Table 10 is the lack of Farm Product Warehousing and Storage and minimal Refrigerated Warehousing and Storage (2 establishments).

The Botetourt County Agricultural Development Strategic Plan indicated that manufacturing employment increased by over 1,000 jobs between 1990 and 2013. The plan indicated that warehouse and transportation firms have sprouted up along the interstate corridors of I-81 and I-64 and that industrial recruits and expansions have been planned for the future. While there is room for the processing and farm product storage sector to grow and be utilized by local farmers, there may be opportunities to tap the existing and future local freight trucking and warehousing resources for local food aggregation and distribution.

For an example of existing distribution resources that could be leveraged, Produce Source Partners of Virginia is a wholesale produce distributor for the state of Virginia providing fresh fruits and vegetables to local restaurants, schools, and institutions. As a company, Produce Source Partners has roughly \$100 million each year in sales throughout the state including the Roanoke, Ashland, and Hampton Roads communities. In 2014, the company spent over \$4.5 million on Virginia Grown fruits, vegetables, cheese, and honey, and spent over \$4.7 million in 2015 (B. Wilkerson, personal communication, 2016). With roughly 5 - 6% of 2015 food purchases certified as Virginia Grown, (B. Wilkerson, personal communication, 2016), there seems to be tremendous potential for this large wholesale distributor to support regional farmers while continuing to supply Salem and Roanoke Cities.

Section 4: Access

Based on the research for this report, there seems to be more existing information and research on consumer access to local food than on production, processing, or distribution of local food.

Roanoke residents spent \$229 million buying food in 2008, including \$131 million (57%) to eat at home. These numbers are very comparable to Virginia residents spending \$11 billion (58%) of \$19 billion to eat at home (Meter, 2011). Table 12 reveals a breakdown of money spent on various categories of foods by Roanoke residents in 2008. From these numbers, there are potential sales that could be redirected toward regional farmers. Even if Roanoke residents only spent 10% of their existing food budget on locally sourced foods, \$13 million could be directed to regional farmers. For comparison, Table 6 indicated that just over \$2 million in direct sales occurred in 2007.

	Estimated money spent by Roanoke residents in 2008 to “eat at home”	Potential farm income if Roanoke residents spent 10% of their food directly from regional suppliers
Meats, poultry, fish, and eggs	\$ 31.6 million	\$ 3.2 million
Fruits and vegetables	\$ 21.7 million	\$ 2.2 million
Cereals and bakery products	\$ 17.7 million	\$ 1.8 million
Dairy products	\$ 14.7 million	\$ 1.5 million
“Other,” incl. sweets, fats, & oils	\$ 45.3 million	\$ 4.5 million
Total	\$ 131 million	\$ 13.1 million

Table 12: Estimated Consumer Expenditures in Roanoke City (Bureau of Labor Statistics Consumer Expenditure Survey, 2008, via Meter, Highlights of Martinsville/Henry County Local Farm & Food Economy, 2011)

Again, there is tremendous potential to build upon existing successes to continue redirecting consumer food expenditures toward regional producers. According to the 2015 Botetourt County Agriculture Development Strategic Plan, consumers are starting to care more about the “story behind the food” (p. 15). Further, according to the 2011 ASAP Survey of Consumer Behavior and Perceptions in western North Carolina, 78% of survey respondents said “buying locally grown food lets you know where your food comes from” and 88% indicated they “would buy more locally grown foods if they were labeled as local.”

In 2007, VCE Specialists Matt Benson and Eric Bendfeldt compiled the annual community food dollars generated if each household in Virginia spend \$10 per week on fresh, local, and farm-based Virginia products. The potential economic impact by county and city in the Roanoke Local region is compiled in Table 13. The annual economic impact calculated for the region is over \$108 million, further supporting the need to include local food in economic development planning. Related to this study, Virginia Department of Agriculture and Consumer Services started the “Farm. Fresh. Pledge.” campaign asking consumers to pledge to spend \$10 per week on Virginia grown products to help grow Virginia’s economy. There is a pledge card for consumers to sign and get punched at the time of each \$10 purchase. There are monthly prizes for those who submitted their cards.

County/City	Annual Economic Impact
Bedford County	\$15,435,160
Botetourt County	\$7,147,400
Craig County	\$1,423,760
Floyd County	\$3,775,200
Franklin County	\$13,055,120
Montgomery County	\$18,261,880
Roanoke City	\$24,042,200
Roanoke County	\$20,140,120
Salem City	\$5,538,000
Roanoke Local Region	\$108,818,840

Table 13: \$10 per Week Campaign Annual Economic Impact in Roanoke Local Region (Benson & Bendfeldt, 2007)

Food Insecurity and Food Access

Food insecurity exists when households have limited or uncertain access to adequate food for a healthy, active life, while hunger is the individual-level physiological condition that may result from food insecurity (USDA ERS). Feeding America generates food insecurity rates for each county throughout the US. Table 14 and Figure 9 reflect these rates as well as the estimated number of food insecure individuals within the Roanoke Local region and compared to the state of Virginia for 2014.

	Estimated number of food insecure individuals (rounded)	Food Insecurity Rate
Roanoke City	16,930	17.3%
Salem City	2,800	11.1%
Roanoke County	8,190	8.8%
Botetourt County	2,430	7.3%
Craig County	510	9.8%
Franklin County	6,150	10.9%
Floyd County	1,380	8.9%
Montgomery County	14,000	14.6%
Bedford County	6,980	9.2%
Roanoke Local Region	59,370	10.9%
State of Virginia	8,326,289	11.8%

Table 14: Food Insecurity in Roanoke Local Region (Feeding America, 2014)

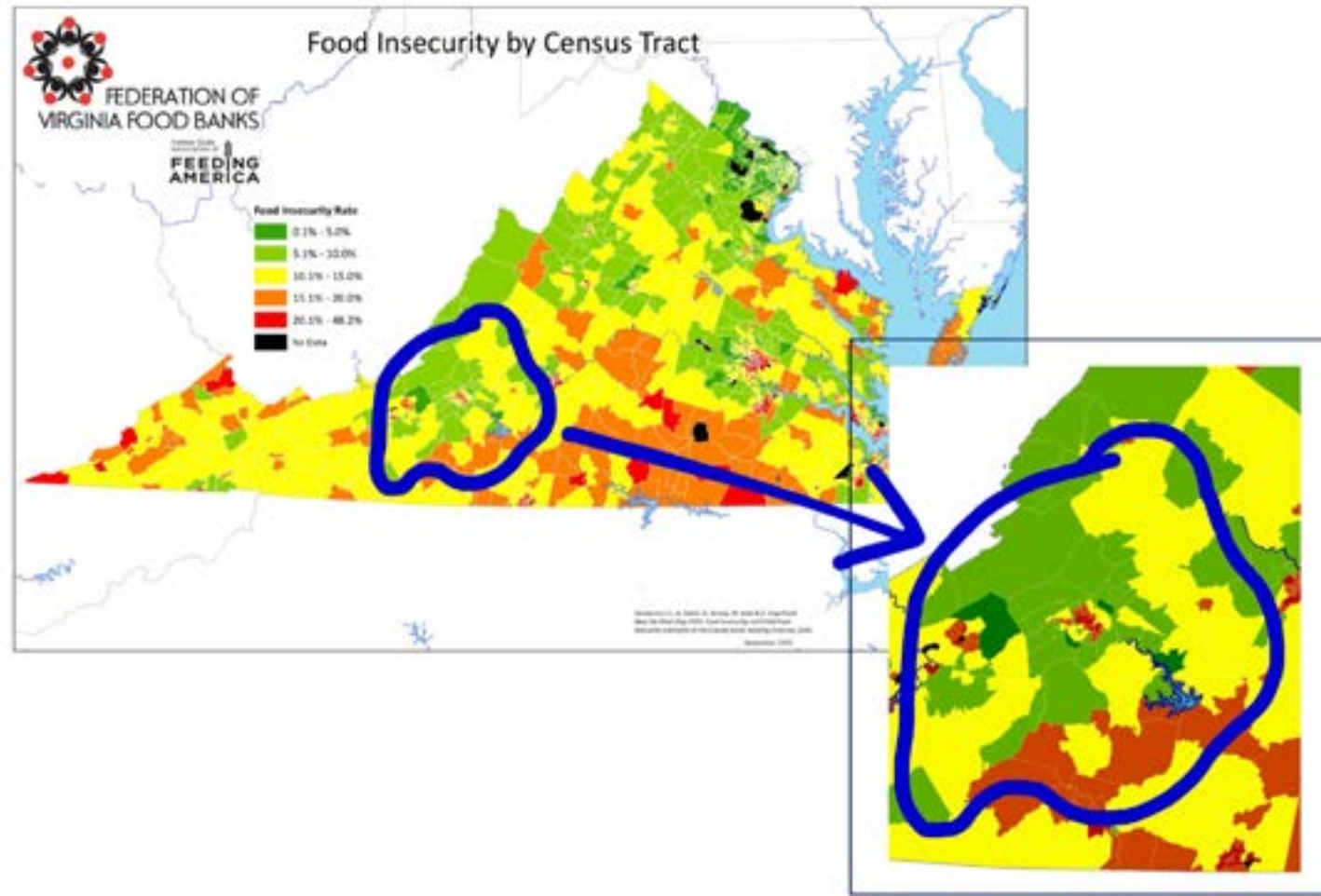


Figure 9: Food Insecurity by Census Tract in Virginia with the Roanoke Local Region Circled in Blue (Federation of Virginia Food Banks, 2015, edited)

In the Roanoke Local region, the average food insecurity rate is 10.9%, which is slightly below the statewide average of 11.8% (see Table 14). Roanoke City (17.3%) and Montgomery County (14.6%) have rates higher than the statewide rate. Again, Virginia Tech students may help explain these numbers for Montgomery County. Food insecurity is not equally distributed over any of these political subdivisions, and many cities, counties, and towns have regions or areas of high need that surpass statewide or regional food insecurity rates. For example, southern Franklin County and the town of Bedford, though not in Table 14, have high rates of food insecurity (see Figure 9).

A review of existing data by the Food Desert Task Force in 2014 suggested “a strong relationship between food deserts and food insecurity” (p. 4) and between poverty and food deserts. The term “food desert” describes an area that is considered low-income and has low food-access. Compared to the state, the average income in Roanoke Local is significantly lower (\$50,440 compared to \$64,792) and the percent of persons in poverty is higher (13.73% compared to 11.2%) (see Table 15). Almost a quarter of residents in Roanoke City (20.4%) and Montgomery County (24.8%) live in poverty (see Table 15). All cities and counties in the region have median household incomes below the state average and Roanoke City is over \$25,000 below state average.

	Population, 2010	Median Household Income (in 2014 dollars), 2010-2014	Persons in Poverty, 2015
Roanoke City	99,897	\$39,530	20.4%
Salem City	25,432	\$50,590	10.2%
Roanoke County	92,376	\$60,950	8.2%
Botetourt County	33,148	\$63,011	7.8%
Craig County	5,190	\$46,658	12.4%
Franklin County	56,159	\$44,827	16.3%
Floyd County	15,279	\$47,543	14.1%
Montgomery County	94,392	\$44,810	24.8%
Bedford County	68,676	\$56,043	9.4%
Roanoke Local Region	490,549	\$50,440	13.73%
State of Virginia	8,001,024	\$64,792	11.2%

Table 15: Overview of Demographic and Economic Information (United States Census Bureau QuickFacts)

The second half of the food desert definition, food access, is an important component to understand why households may be food insecure. The USDA considers a household to have low food-access if the nearest grocery store is 1 or more miles from a significant portion of the population in an urban setting and 10 or more miles in a rural area. In understanding what food sources are available to Virginians, the Food Desert Taskforce revealed that there were 6 times the number of convenience stores (4,016) and fast food restaurants (5,908) than there were grocery (1,532) and super stores (122) in the state of Virginia in 2013. Further, the Taskforce stated that for localities with low food-access, the concentration of fast food restaurants and convenience stores per 1,000 residents is greater than that of grocery and superstores with fresh produce.

Figure 10 shows the areas with low food-access designated by the USDA, and Figure 11 reflects numbers of those with limited access to healthy food retrieved from the Roanoke Valley Community Health Needs Assessment (conducted by Carilion Clinic 2015). It is important to note that food security data is based on consumption of food while food access data is based on the spatial distribution of food sources throughout a community.

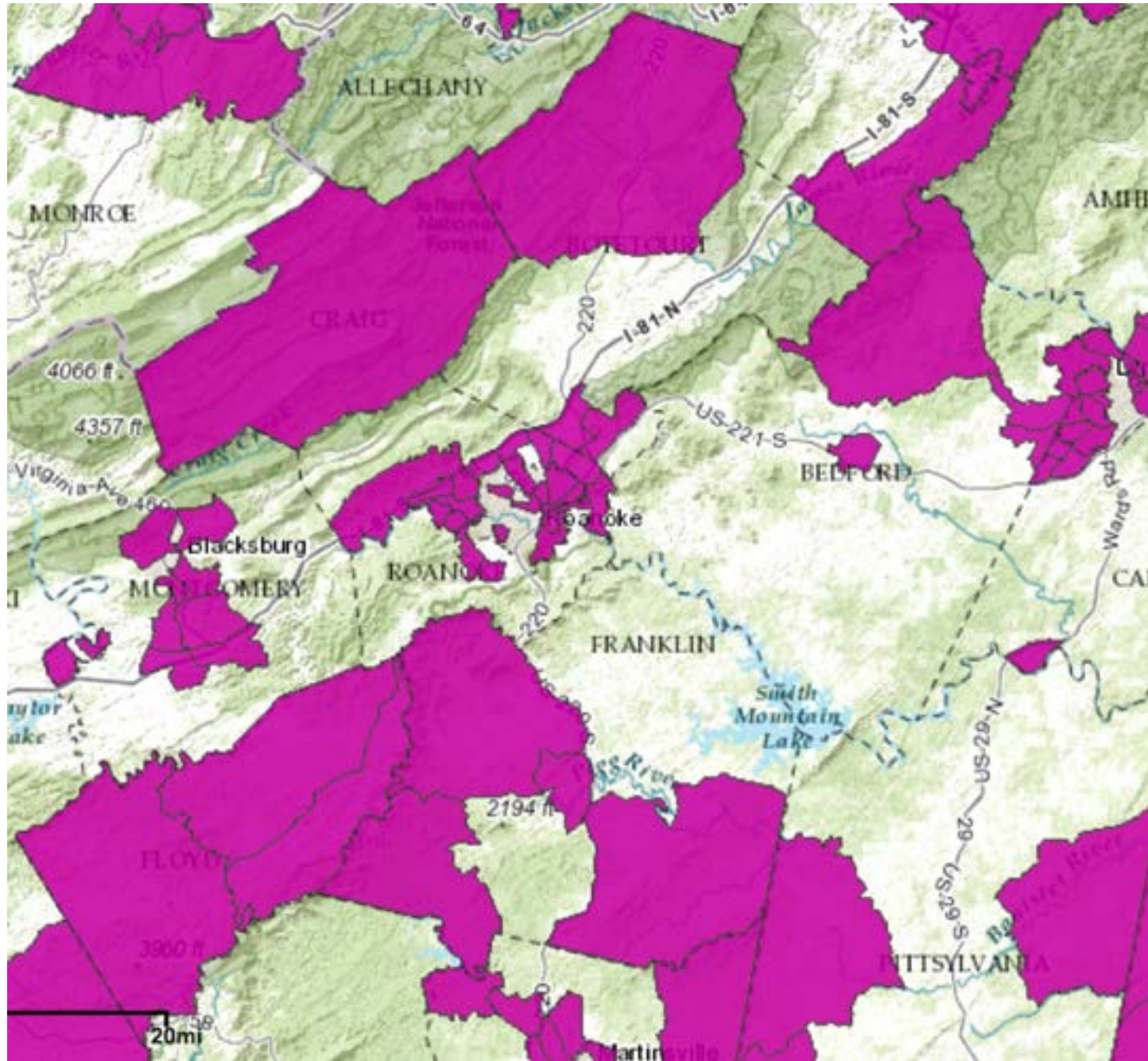


Figure 10: Food Access in Roanoke Local Region (USDA Economic Research Service Food Access Atlas)

Access to Healthy Foods

(USDA Food Environment Atlas, Map the Meal Gap. (2012). Retrieved from <http://www.countyhealthrankings.org/app/virginia/2015/downloads>)

Locality	# Limited Access	% Limited Access
Botetourt	974	3%
Craig	216	4%
Franklin	3988	7%
Roanoke City	10400	11%
Roanoke	2706	3%
Salem City	2757	11%
Virginia	395610	4%

Figure 11: Access to Healthy Foods in Select Cities and Counties in Virginia (Community Health Needs Assessment, 2015)

Based on two reports by The Reinvestment Fund for Virginia Community Capital (VCC) on supermarket access in Virginia, both out in February 2015, Bedford County was ranked 7th among the counties and cities in Virginia for its high population living with “Limited Supermarket Access” (LSA). The report highlighted the positive impacts of financing healthy food access projects, including improved access to fresh food at lower costs to the consumer, increased demand for food, increased job opportunities, and increased tax revenues.

In addition, the Roanoke metro area was indicated as one of the regions exhibiting the most potential for VCC fresh food financing due to the food access problems disproportionately affecting low-income and/or minority populations. Low-income residents constitute 63% of LSA residents compared to 26% of the general population, and minority populations exhibit a share of the LSA population that is 1.5 times that of the general population. The report suggests Metro Roanoke as a candidate for food access intervention yet warns of the uncompetitive food retail market due to the oligopoly of Kroger and Wal-Mart.

The Food Desert Taskforce emphasized that access to reliable transportation may be “the best marker for access to healthy and affordable food, regardless of... socioeconomic status” (p. 11). For those with low incomes, it is even more challenging to obtain food in areas with low food access because of transportation costs, among other factors. From the 2015 Assessment of Food Access in Roanoke City, current rates of low food access reflect the importance of expanding geographical access through increased food access locations, addressing issues of transportation and disability, the need to consider local demographics for outreach and education, as well as the role of economic status in determining food access and driving market locations.

Figures 12 and 13 show where residents in the Roanoke Local region are able to obtain food, including groceries, convenience stores, pharmacies, and gas stations with convenience stores. It also shows what

areas of the region the USDA deems low-income with low food-access. Interesting to note are the areas with low-income and low food-access (beige) that have many gas stations with convenience stores (orange dots), but limited grocery stores (yellow dots).

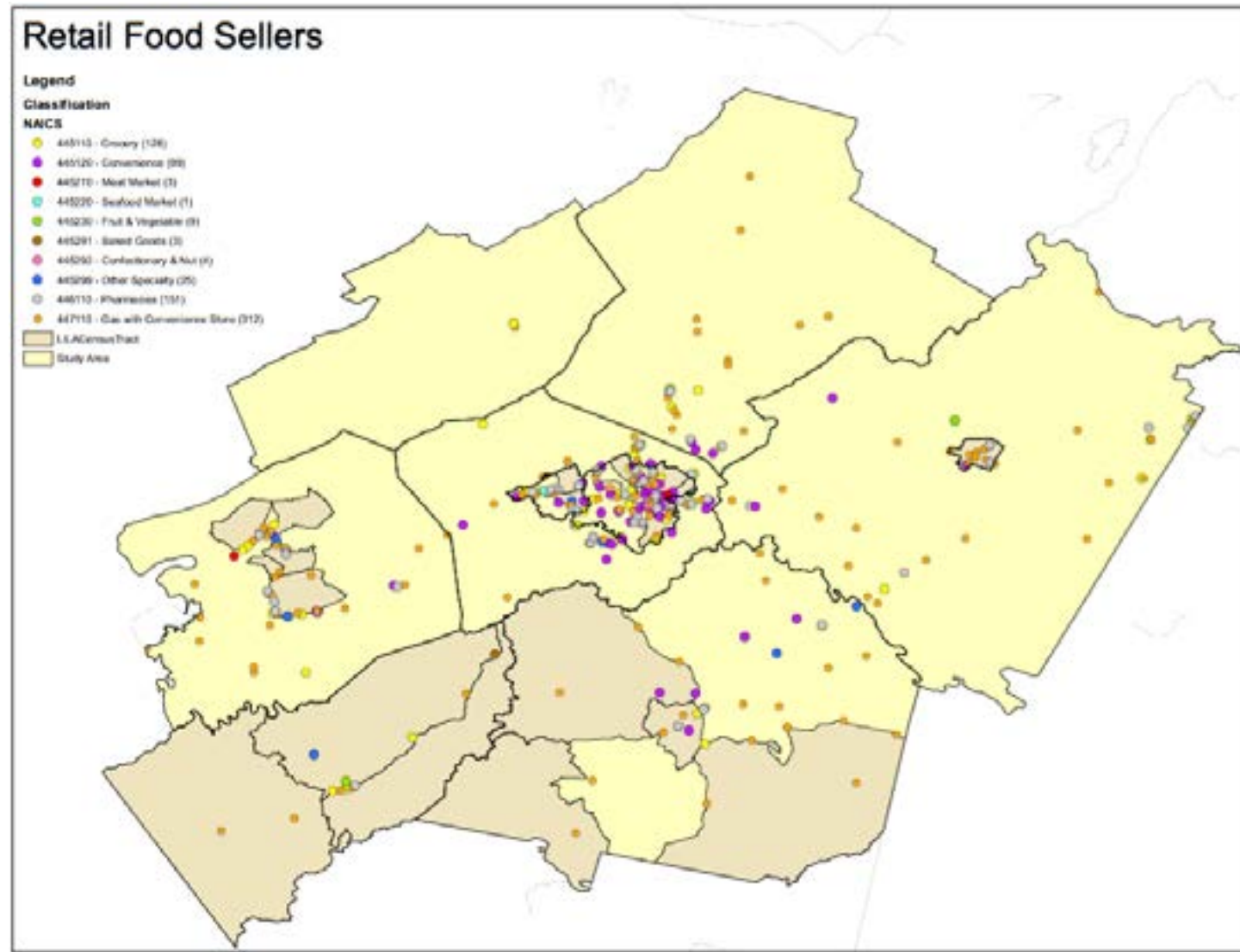


Figure 12: Roanoke Local Food Retail Sellers over Low-Income & Low-Access (RVARC, 2016)

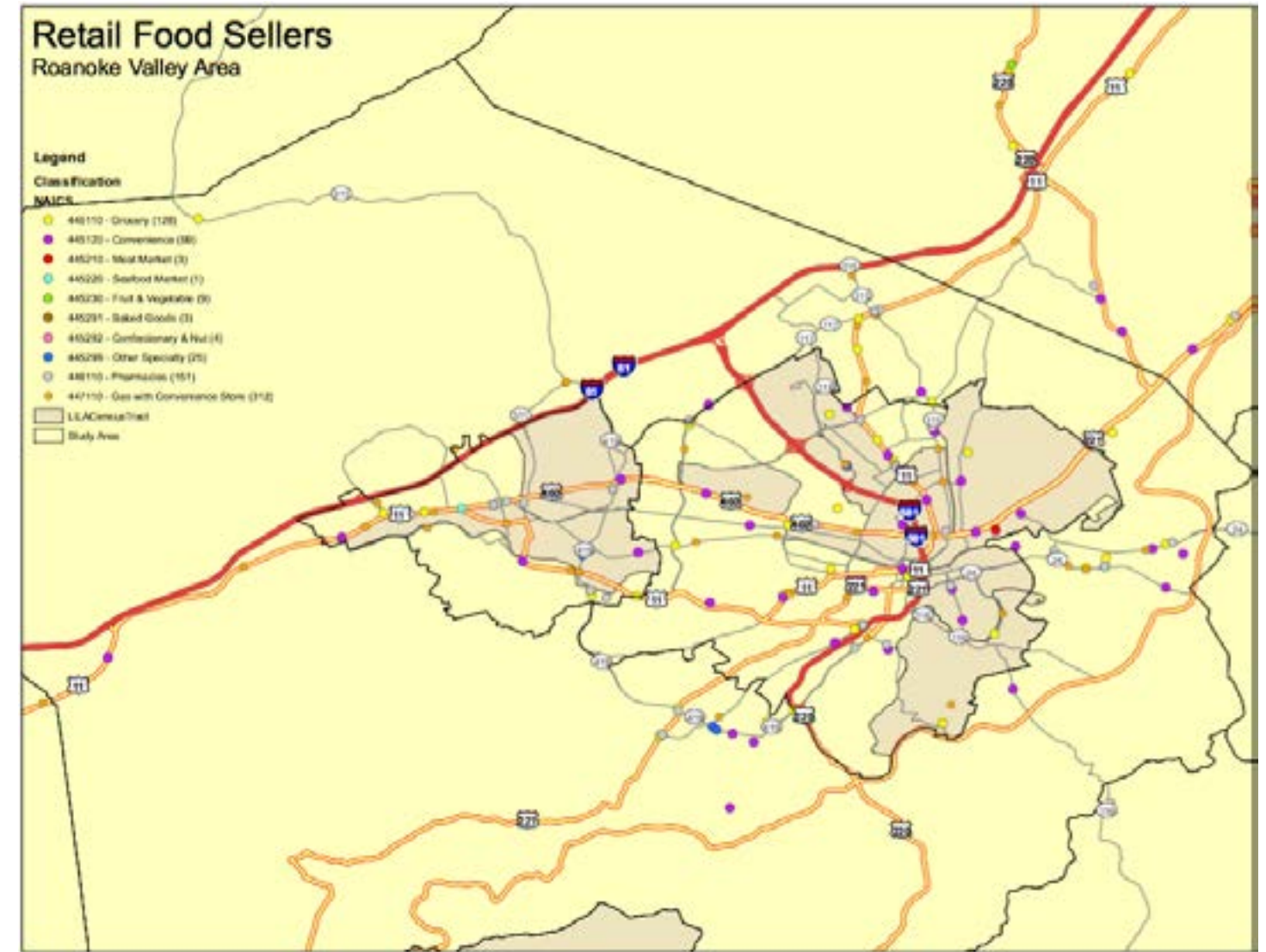


Figure 13: Roanoke Valley Food Retail Sellers over Low-Income & Low-Access (RVARC, 2016)

Carillon Clinic and Healthy Roanoke Valley organized the Community Health Assessment Team to identify the needs and barriers to healthy living in the cities of Roanoke and Salem as well as the counties of Roanoke, Franklin, Botetourt, and Craig. After all the data was collected and presented, the assessment team members ranked the top ten pertinent community needs. From the 2015 Roanoke Valley Community Health Needs Assessment final report, “poor eating habits/lack of nutrient dense foods in diet” was the most frequently ranked need, and eventually became one of priority areas for regional health work. Stakeholders indicated access to healthy food as a barrier to healthy living. “Wellness” initiatives were identified as having the second greatest impact on health. Of these initiatives, “Food & Nutrition” was indicated as the second most impactful category, including promoting local and whole foods, especially in schools.

Community focus groups identified “Lack of Access to Healthy Food” as second largest barrier to optimal health. Online survey identified “access to healthy foods” and “poor eating habits” as the 3rd and 7th most important issues that affect health in the community. Further, just under half of the respondents claimed their neighborhood did not support healthy eating habits with community gardens, farmers markets, etc, and about a third of respondents claimed it was not easy to get affordable fruits and vegetables. While most of the respondents indicated they purchase most of their food from a grocery store, the farmer’s

market was the third most prevalent food source outside Roanoke City and fourth (tied with emergency food programs) within Roanoke City.

Poverty Status in the Past 12 Months by Race/Ethnicity, 2009-2013

(U.S. Census Bureau, 2009-2013 5-Year American Community Survey, Table S1701. Retrieved from <http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t#none>)

Geography	White			Black/African American		
	Population	Number in Poverty	Percent	Population	Number in Poverty	Percent
Virginia	5477811	491024	9%	1491461	294800	19.8%
Botetourt County	31046	2229	7%	1156	220	19%
Craig County	5028	393	8%	2	2	100%
Franklin County	49367	6840	14%	4216	656	15.6%
Roanoke County	81853	4111	5%	4838	1108	22.9%
Roanoke City	62536	10,650	17.1%	26112	8,664	33.2%
Salem City	20375	2,082	10.2%	1803	521	28.9%

Geography	American Indian/Alaskan Native			Asian			Native Hawaiian and Other Pacific Islander		
	Population	Number in Poverty	Percent	Population	Number in Poverty	Percent	Population	Number in Poverty	Percent
Virginia	23536	3478	14.8%	449879	37249	8.3%	5215	673	12.9%
Botetourt County	38	0	0%	46	0	0%	0	0	0%
Craig County	0	0	0%	21	21	100%	0	0	0%
Franklin County	70	0	0%	110	0	0%	0	0	0%
Roanoke County	64	0	0%	2428	265	11%	0	0	0%
Roanoke City	267	60	22.5%	1876	778	41.5%	129	0	0%
Salem City	0	0	0%	446	58	13%	0	0	0%

Geography	Some Other Race			Two or More Races		
	Population	Number in Poverty	Percent	Population	Number in Poverty	Percent
Virginia	175056	29497	16.9%	231178	30874	13.4%
Botetourt County	21	0	0%	430	73	17%
Craig County	0	0	0%	114	33	28.9%
Franklin County	122	14	11.5%	721	116	16.1%
Roanoke County	198	7	3.5%	1483	498	33.6%
Roanoke City	884	307	34.7%	3639	901	24.8%
Salem City	277	0	0%	163	32.00	19.6%

²³ US Census Bureau, American Community Survey, 1-year estimates, 2010

Figure 14: Poverty Status in the Past 12 Months by Race/Ethnicity, 2009/2013 (Roanoke Valley Community Health Needs Assessment, 2015)

From Figure 14, taken from the Community Health Needs Assessment Report, it is clear that people of color are disproportionately affected by poverty. With poverty being a barrier to health and access to healthy food, there is a need to reach out to communities of color.

Carilion Clinic's Local Food Program

In addition to external community health programming, Carilion Clinic has also prioritized wellness, local food, and health initiatives in their internal operations. In response to the 2012 Community Health Needs Assessment that identified "wellness" as a priority area, Carilion Clinic developed its local foods program. As mentioned previously, the top identified health need on the 2015 Roanoke Valley Community Health Needs Assessment was poor eating habits, specifically a lack of nutrient dense foods in diets, strengthening Carilion's resolve to support this movement. Carilion provides financial and in-kind support for many local programs focused on improving access to and education about local, nutrient dense foods.

Additionally, Carilion Clinic has partnered with Good Food Good People in Floyd, Virginia to provide a CSA (Farmshare) program pickup location that is convenient for employees and community members in the Riverwalk Parking Garage next to Carilion Roanoke Memorial Hospital. Since 2012, Carilion Clinic has been able to offer the opportunity for employees to utilize payroll deduction to purchase Farmshares, spreading the cost out for employees and making it more feasible to buy and consume local produce. In 2016, Carilion expanded this offering to Carilion New River Valley Medical Center, making this program available to more employees. Since 2012, this program has grown by 79%.

In May 2015, Carilion's senior leadership team signed the Healthier Hospitals Initiative's executive commitment statement. The Healthier Hospitals Initiative was developed by 12 of the largest health care systems in the United States and provides a guide for hospitals to reduce energy and waste, choose safer and less toxic products, and purchase and serve healthier foods.

SNAP and Local Foods

Over \$74 million in federal Supplemental Nutrition Assistance Program (SNAP, formally foodstamps) dollars were dispersed throughout the Roanoke Local region in 2015 (see Table 16). Based on the 2012 Agricultural Census, over \$3 million in government payments went to regional farmers in 2012. Involving SNAP recipients in the regional food market could substantially increase the federal dollars already entering the regional food system.

Locality	Annual Total
Bedford County	\$8,069,876
Botetourt County	\$2,431,043
Craig County	\$727,676
Floyd County	\$2,248,433
Franklin County	\$9,948,765
Montgomery County	\$9,302,562
Roanoke County	\$10,044,188
Roanoke City	\$32,024,504
Salem City	\$7,151
Roanoke Local Total	\$74,804,198
Virginia Total	\$1,216,121,066

Table 16: 2015 SNAP Issuance (http://www.dss.virginia.gov/geninfo/reports/financial_assistance/fs.cgi)

Agriculture is Virginia's largest industry. In Virginia, direct sale outlets, which tend to support small-medium size farms, are on the rise with 226 farmers markets in 2016. Of those, 110 are authorized to accept SNAP and 61 processed SNAP transactions in 2016. While less than 0.01% of the total SNAP disbursement in Virginia was redeemed at farmers markets in 2015, the USDA Food and Nutrition Service report shows that SNAP spending at farmers markets in Virginia is on the rise. Comparing January-September in 2015 and 2016, there was a 35% increase from \$92,892 in 2015 to \$125,008 in 2016.

From January-September 2016, an overwhelming 20% (\$24,740) of statewide SNAP at farmers markets came from eight Roanoke Local farmers markets (Blacksburg, Salem, Floyd, Catawba Valley, Vinton, and LEAP's three Roanoke markets). While SNAP purchases at farmers markets are increasing in Virginia and a significant percentage is occurring in the Roanoke Local region, there remains tremendous potential to tap into the almost \$75 million annual benefits dispersed throughout the Roanoke Local Region.

Figure 15 reveals the farmers markets (purple dots) available throughout the Roanoke Local region, including low-income areas with low food-access (yellow). The LEAP Mobile Market, with 9 weekly or biweekly stops in Roanoke City; are not included in the map. See Appendix B for the list of markets reflected in Figure 15.

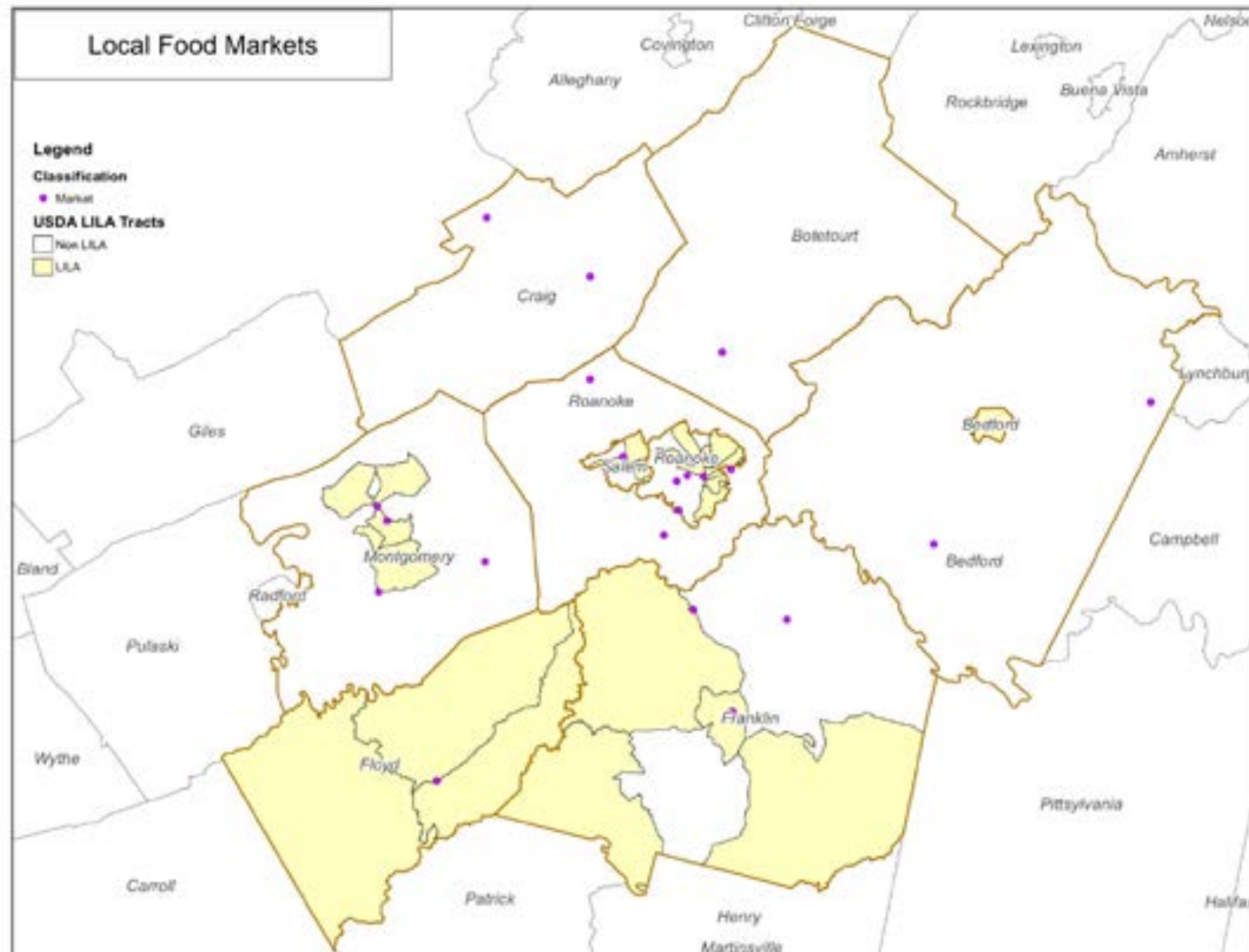


Figure 15: Farmers Markets in the Roanoke Local Region Mapped over Low-Income Areas with Low Food-Access (RVARC, 2016)

Nutrition incentive programs (e.g. doubling SNAP at farmers markets) increase the purchasing power of low-income market customers, stimulate local food production, build farmer income, and provide access to affordable, nutritious, fresh food for all community members. As a health and innovation leader, Carilion Clinic, through their Community Grant program, began funding incentive programs at markets in the Roanoke Valley in 2011. Grants, sponsorships, and donations have been used to fund incentive programs at markets across the Roanoke Local area (Blacksburg, Salem, Catawba Valley, Downtown Roanoke, LEAP Markets, Vinton, Bedford, Floyd).

In 2015, LEAP, as sub-grantee of Wholesome Wave's large scale USDA Food Insecurity and Nutrition Incentive (FINI) grant, has begun to coordinate some of the regional efforts around incentive programs. Building on the strong relationships between farmers markets in the Blue Ridge Farmers Market Manager group, farmers markets continue to share resources to support production and consumption of local food. Incentive programs in the region include SNAP Double Value (all markets listed above), Bonus Bucks (LEAP, extra incentives at month-end), SNAPShare (LEAP, CSA share at 50% discount for SNAP), Bonus Bags (Salem, extra bag of produce and recipe when purchase produce with SNAP at market), Fresh Foods Prescription program (LEAP, prescription for fresh food to be redeemed at Mobile Market), incentives for Head Start families and low income seniors. In 2017, LEAP will pilot an incentive program for people who are on Medicaid to incentivize fruit and vegetable consumption at markets.

Survey data from the 2016 LEAP Market season indicated that 75% of Healthy Food Incentive participant survey respondents reported (strongly agree or agree) that "we eat more fruits and vegetables now than we did before shopping at the market." In addition, 77% indicated (strongly agree or agree) "we eat more variety of fruits and vegetables now than we did before we began shopping." The incentive programs make a difference in people's shopping/purchasing decisions in that 57% of respondents said that the SNAP Double Value Program was very important in their decision to spend their SNAP benefits at the market and they wouldn't have otherwise. Further, 55% reported that outside the market, it was difficult or very difficult to shop for fresh produce in their neighborhood. Almost all survey respondents (94%) agreed with the statement, "As a result of shopping at the farmers market this season, it is easier for me to buy fruits and vegetables."

LEAP's Roanoke markets have seen a 39% increase from 2014 to 2015 in overall redemption of SNAP tokens with an additional projected increase for 2016. As a small subset of all the markets in the region, LEAP Market data exemplifies the potential impact of SNAP and incentive programs at farmers markets. LEAP's markets, despite their size, represent 8.6% of Virginia farmers market SNAP transactions in 2015 and the LEAP markets continue to attract new customers (17% of SNAP transactions were from first time customers in 2016).

Based on LEAP-collected data from the previously mentioned eight markets in the region, in addition to the SNAP benefits used at the market from January-September 2016 (\$24,740), these markets also provided SNAP-incentives (\$25,057). Just SNAP and SNAP incentives brought an additional \$50,000 in sales to local farmers. Market data is not collected regionally; however, for reference, LEAP's three relatively small markets, support over 80 producers within 100 miles of Roanoke (direct and aggregators).

Farm to School

From the 2011 report to congress on US local food trends, 4 in 10 public school districts reported participating in farm to school activities during the 2011-2012 school year or starting during the 2012-2013 school year. Most of the farm to school districts procuring local food sourced from distributors (65%), directly from producers (44%), and directly from food processors and manufacturers (40%).

Based on the 2015 Farm to School Census conducted by the USDA through self-reported surveys, 105 schools in five Roanoke Local counties and including Roanoke City served local food in the 2013-2014 school year. Montgomery and Craig Counties as well as Salem City indicated that they did not have any farm to school programming and no plans for the future. Participating schools served fruits and vegetables including apples, Asian pears, tomatoes, lettuce, cabbage, peppers, cucumbers, corn, spinach, broccoli, potatoes, and herbs for breakfast, lunch, summer meals, and the Fresh Fruits and Vegetables Program. Floyd County schools indicated that locally-sourced ground beef was served occasionally. Table 17 reveals local food spending from select districts.

County/City	Total Spending	Spending on Local Foods
Floyd	\$300,000	\$2,000
Franklin	\$1,400,000	\$10,000
Roanoke City	\$2,400,000	\$75,000

Table 17: Farm to School Spending in Floyd County, Franklin County, and Roanoke City (USDA Farm to School Census, 2015)

The 2015 Botetourt County Agriculture Development Strategic Plan indicated that county public schools sourced 5% of it's total \$760,000 school food budget from local sources.

The following challenges were indicated in the 2015 Farm to School Census to hinder farm to school purchases in the region:

- Local producers do not bid
- Hard to find year-round availability of key items
- Hard to coordinate procurement of local with regular procurement
- Local items not available from primary vendors
- Higher prices
- Unstable product prices
- GAP (Good Agricultural Practices) or other food safety requirements
- Inability to pay farmers according to farmers' needs due to school district payment procedures
- Getting product delivered that meets your quality requirements & other specs (i.e., size)
- Hard to find new suppliers/growers or distributors
- Time spent to resolve problem deliveries
- Lack of reliability in delivering ordered items

Cabell County and Tucker County schools in West Virginia have been considered successful farm-to-school models in the region (E. Landseidel, personal communication, 2016). Cabell County school system have purchased fresh eggs from students, transitioned to cooking from scratch in the kitchens, and grown vegetables specifically for the school on farmland in Milton, West Virginia. Through the school agriculture program, Tucker County students have grown hydroponic lettuce to sell and serve in the school cafeteria. With similar rurality, landscape, and agricultural history, these models could potentially be utilized for farm-to-school work in the Roanoke Local region.

Farm-to-college is happening in Montgomery County at Virginia Tech through the Dining Services Farm at Kentland and the on-campus Farms and Fields Project in Owens Food Court. Located in The Dining Services Farm is a 3-acre vegetable and herb farm where students and dining services staff act as the farm crew. All produce is harvested and sent directly to Dining Services to be served in Virginia Tech dining halls, mainly the Farms and Fields Project in Owens Food Court. According to the 2011 Martinsville area study, Ferrum College in Franklin County serves produce grown by students on a garden located at Titmus Agricultural Center. Further, TAP Headstart Centers in Roanoke are currently operating a Farm-to-Preschool program purchasing from Produce Source Partners. Farm-to-school and college is happening in the region, and these successful models show there is room for growth.

Existing Local Food Guides and Maps

Roanoke Valley-Alleghany Regional Commission Local Foods Map

This interactive GIS map includes farms and markets in the entire region.

<http://www.arcgis.com/home/webmap/viewer.html?webmap=9fca12e000094c6a817ed8585f887b9c&extent=-80.2086,37.1539,-79.5848,37.3765>

<http://rvarc.maps.arcgis.com/apps/Viewer/index.html?appid=945afb808fa8408099151f86eeee85c8>

SO Fresh interactive online SWVA Local Foods Guide

This map includes producer information in Montgomery, Floyd, and Franklin counties.

http://nrsrc.org/Agritourism/SWVA_Local_Foods/

Roanoke Valley Locavore Food Directory

Online and print versions include producer, supplier, and market information throughout the region.

<http://roanokevalleylocavore.com/wordpress/>

Franklin County Fresh Foods Local Foods and Gardening Directory

Guide created by The Franklin County Master Gardener Association.

<http://www.franklincountyfreshfoods.org>

SWVA & NETN 2016 Local Food Guide

This guide created by Appalachian Sustainable Development and Rooted in Appalachia includes markets, grower associations, and producers in Floyd County.

http://asdevelop.org/wp-content/uploads/2016/03/2016FoodGuide_FINAL-1.pdf

ArcGIS: NRV Local Food

This map includes producer and market information in Montgomery, Floyd, Roanoke, Franklin, Craig counties as well as Roanoke and Salem Cities.

<https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=f5adc0ea40ac4e24b64114923797f53e>

2015 Shenandoah Valley Buy Fresh Buy Local Guide

The state Buy Fresh, Buy Local campaign indicates this chapter covers Botetourt county, however the chapter page doesn't include Botetourt (or Alleghany).

<https://www.buylocalvirginia.org/chapters>

The Eat Well Guide

This guide offers information on farms and markets across the US.

<http://www.eatwellguide.org>

There will be a state-wide agritourism mapping effort underway organized by the New River Valley Regional Commission. The map is a component of an economic impact study on Virginia Agritourism.

In review, \$131 million was spent by Roanoke City residents on food eaten at home in 2007, almost \$75 million in SNAP was distributed to the Roanoke Local region in 2015, and less than 2% of total regional agricultural sales (just under \$180 million) resulted from direct sales in 2012. This paints a dramatic picture reiterating the economic potential to connect regional producers to regional consumers.

Section 5: Recommendations and Suggested Projects

An Overview of Select Reports, Studies, Plans, and Assessments

The 2016 **Appalachian Virginia Community Food Security Assessment** (AV Assessment) found that numerous organizations and individuals were focused on agriculture as economic development in southwest Virginia. The assessment captured dialogue around local processing and cost-saving programs for local farmers and access to capital for new and beginning farmers. The authors indicated that regions with successful agricultural economies may be due to the two main factors: community involvement in supporting vibrant farms and outside funding. The assessment provides recommendations for how to build on communities' existing strengths and ideas for how to develop regional connections (such as regional convenings, digital platforms, and a culture of open-information sharing). The AV Assessment also discussed the importance of developing relationships between organizations that share similar values, even if these organizations do not work directly with food systems.

The Food Desert Taskforce 2014 report, **Food Deserts in Virginia**, recommendations included providing incentives for small businesses to develop local and healthy food enterprises in food desert areas, assessing the potential for mobile markets in both urban and rural areas, and exploring tax incentives to encourage small businesses to invest in infrastructural changes to sell fresh and healthy foods in local markets. All of the Food Desert Task Force recommendations intend to develop and promote sustainable community food systems.

The 2015 study, **Linking the Catawba Sustainability Center to the Local Food System** (CSC Study), analyzed existing data (agriculture, processing, and distribution) and results from four focus groups and a quantitative survey (n=35) of regional stakeholders. The qualitative portion of the report offered three main areas for development as well as possible tactics:

1. Support new and emerging farmers and agriculture-ventures through comprehensive programming on enterprise incubation and acceleration, business development and management, training and technical assistance in specialty areas, as well as food safety trainings and certifications.
2. Use the CSC to provide networking and support for regional farmers and markets, offer direct marketing assistance and explore collaborative marketing possibilities, potentially become a physical and virtual food hub, as well as strengthen leadership and organizational capacities of local food entities.
3. Use the CSC to experiment with innovative programming to champion sustainable agriculture and strengthen the local foods economy by researching existing innovations, encouraging innovations in the region, and helping increase connections through convenings and value chain relationships.

The study also recognized that the CSC could play a leadership role in regional food activities like participating in a food policy council or constructing a comprehensive assessment of current stakeholders, organizations, and initiatives already working in a food related capacity. In the producer focus group, participants ranked education, skilled workforce, financial assistance, and marketing as the four main topics that would help them the most.

The 2015 **Botetourt County Agriculture Development Strategic Plan** (Botetourt Plan) discussed the importance that county residents placed on agriculture in the region. The Botetourt Plan recommended specific actions around improving policy coordination for agriculture, preserving farmland, facilitating farmer training and technical assistance, promoting innovative agricultural enterprises, expanding local food marketing opportunities, enhancing marketing opportunities in general, and improving farm viability. The plan specifically addressed the need for farmer technical assistance, regional branding, and the establishment of a food hub.

The 2014 **Region 2000 Strategic Plan** for the agriculture and forestry economy surrounding Lynchburg included goals to coordinate regional marketing and outreach, strengthen resources for producers, and promote enterprise development opportunities. Specific projects outlined in the plan included developing a regional website, promoting locally grown foods through a collaboration of food system stakeholders, developing healthy food retail at convenience stores, conducting a food hub feasibility study, adding verb county cattleman association meetings, encouraging connections among producers and buyers, and developing regional young farmers trainings and agriculture awareness.

As per suggestion of the aforementioned plan, the **Region 2000 Local Food Hub Study** released a draft business plan in February 2016. This plan stated that food hub models have been established throughout the region to answer the problems of wholesale relationship management, quality assurance, transactions, logistics, inventory tracking, retail merchandising, etc. The Region 2000 Food Hub study indicates the Local Food Hub in Charlottesville as a well known example. This example food hub is a facility-based aggregator of regional food products that resells products within Central Virginia and the DC metropolitan market.

“The Local Food Hub [in Charlottesville] is a not-for-profit entity that relies heavily on subsidies to maintain its operational capacity. Farmers selling through the Local Food Hub, and similar operations, are quite supportive of the model, but worry that it lacks operational sustainability due to the high overhead expenses—from large staff, facility costs, and low through-put—to be a long-term answer to their needs” (p. 2).

The Region 2000 Food Hub is envisioned as a multi-function organization that enhances the value of foodstuffs produced by farmers and food entrepreneurs in Amherst, Appomattox, Bedford, and Campbell Counties, town of Bedford, and city of Lynchburg. This hub is proposed to offer food safety, transaction management, and marketing support services. As the Region 2000 Food Hub proves its ability to operate such programs, the model will expand to include more asset-based services such as warehousing, repacking, processing, and similar operations. The Region 2000 Food Hub would include three main programs to start with improving:

1. **Food safety** by creating and managing a collaborative **quality assurance** program that qualifies under the Food Safety Modernization Act as a GroupGAP program
2. Transparency in the local food system at the transaction level by designing and implementing an **electronic tracking system** with the purpose of food safety
3. Economic conditions at the farm level by promoting agricultural and food products produced in the Region 2000 counties through **merchandising programs**

The 2014 **Montgomery County Farm to Community Planning Project Final Report** (MC Report) summarized results from an online producer survey (n=33) and an in-person low-income consumer survey (n=55) about local food in Montgomery County. The majority of consumers indicated that a community garden or farmers market in their neighborhood would result in them eating healthier and most believed that a food business incubator and community kitchen would benefit the community. 76%

of producers indicated that they want to expand their operations, focusing first on direct and restaurant outlets, and then on institutional buyers. Producer barriers included marketing, aggregation, and distribution. The report concluded that a food hub or a farmer co-operative may ameliorate issues of scale and marketing.

The **Floyd Growers Roundtable** was organized by SustainFloyd in February 2016 to assess and address challenges facing local farmers. Priorities identified from the roundtable (85 participants) included consumer education program around local food, an information hub for growers, regular food system convenings, a value-added food proceeding center, a Floyd regional brand, and marketing workshops for farmers.

The **New River Valley Agriculture & Agritourism Strategic Plan** (NRV Plan) was developed for Giles, Montgomery, Pulaski, and Floyd Counties to offer a plan of work to support and enhance agriculture and agritourism in the region. Recommendations (collected in 2014 and 2015) included an agriculture development board, production infrastructure opportunities for meats and produce, establishing a producer network, identifying opportunities for beginning farmers, and creating teams to assist with whole farm planning. With respect to agritourism, recommendations included enhancing marketing strategies, creating an interactive web-based tool, providing agritourism education, and supporting local farms with on-farm direct sales. Strategies to move forward included a USDA-certified slaughterhouse within a 60-minute drive of producers, a packaging facility for meats and produce, farmer networking events, an online resource guide, GAP trainings, and technical assistance for farmers to help with business planning and marketing.

The 2011 study, **A Community-based Food System: Building Health, Wealth, Connection and Capacity as the Foundation of Our Economic Future** (Martinsville Study) looked at the food and farm economy of the Martinsville, Virginia region. The study covered two cities and eight counties in Virginia and North Carolina, including Floyd and Franklin Counties. From this study, four overarching goals were identified to guide their work in developing local food systems: health, wealth, connection, and capacity. Recommendations included establishing a coalition of stakeholders to steer food systems work, increasing connection to community networks, connecting producers with market opportunities, developing a producer network, offering GAP and organic certifications, compiling a database of producers and value-added entrepreneurs, developing local brand identity, and providing small business technical assistance. The study concluded that the Martinsville region was “well-positioned to expand local farm and food production to serve retail markets in the surrounding metro areas” (p. 11) including Roanoke. The study noted that the region, inclusive of Floyd and Franklin Counties, has market access to 60% of the US population within a day’s drive; a characteristic which adds to the tremendous potential for regional agriculture to grow and succeed.

Virginia Cooperative Extension (VCE) Units organize **Situation Analysis Reports** (SA Reports) for their areas that include priority issues determined primarily by key informant interviews, focus groups, and surveys. The last round of reports were released in 2013, and all Roanoke Local counties participated (except Botetourt County). Roanoke and Salem Cities were included in the Roanoke County report. Five of the six reports included developing profitable and/or sustainable agriculture businesses as a priority. Topics such as economic development, job creation, small business development, entrepreneurship, farm transition, marketing, and agricultural infrastructure were all listed as needs within regional food production. Over half the reports included local food system development as an avenue to support regional farmers. Further, five of the six reports discussed nutrition, health, and/or obesity as issues VCE could support with relevant programming. Agriculture education and awareness were listed as potential solutions to these issues.

The 2011 **Virginia Farm to Table Strategic Plan** recommends business and production management training for farmers. The report also notes that in order to determine where to focus regional efforts, we should assess the needs of local farmers, including infrastructure and education.

In the presentation by Eric Bendfeldt and Martha Walker, “**Local foods: Economic Impact,**” They offer the following keys to scaling up to meet the increasing demand for local food in Virginia:

- Aggregation
- Controlling product quality and consistency
- Seasonality
- Matching supply and demand
- Food identity and product differentiation
- Supply chain infrastructure
- Capital
- Capacity and beginning farmer development
- Information flow and transparency

Suggested Projects for the Region

1.) Regional Branding and/or Co-operative Marketing Initiative

Regional branding is becoming more common across the country including Appalachian Harvest in southwestern Virginia, Greenbrier Valley Grown in southeastern West Virginia, and Appalachian Grown in western North Carolina. In a similar economic and agricultural area, the 2011 Appalachian Sustainable Agriculture Project (ASAP) Survey of Consumer Behavior and Perceptions in western North Carolina revealed that 88% of survey respondents would buy local if labeled as local. A 2015 survey report from ASAP on the Appalachian Grown program showed that 85% of farmers who used the logo indicated that it was important in helping them increase sales. The Botetourt County Agriculture Strategic Plan mentioned the county benefited from local food promotion through the Buy Fresh Buy Local for Shenandoah program. As marketing is often a challenge for farmers, co-operative marketing could help farmers share the marketing expenses. Local food labeling systems have come up in the CSC Study, AV Assessment, Botetourt Plan, Floyd Growers Roundtable, Martinsville Study, and was an issue identified by the RVARC Regional Local Foods Planning Committee (Local Foods Committee) in January 2016.

2.) Low-cost or Free GAP and/or other Food Safety Certification Trainings

With the Food Safety Modernization Act signed into law in 2011, fresh produce is now subject to federal regulation. With partial support from the FDA and USDA, the Good Agricultural Practices (GAP) program was established to educate growers and packers on how to reduce microbial risks in fruits and vegetables. Many institutional and wholesale buyers, including Producer Source Partners (B. Wilkerson, personal communication, 2016) and regional school systems, require producers to be GAP-certified. This need has been documented in the CSC Study, AV Assessment, Region 2000 Food Hub Study, NRV Plan, Martinsville Study, and Farm to Table Plan. One participant from the CSC Study mentioned “GAP certification... costs \$10,000 per year sometimes. USDA audits can be one tenth the cost.” In the CSC Study, survey respondents ranked “workshops and training on food safety” as part of the sixth most impactful way the CSC could support and strengthen the regional food system.

Virginia Cooperative Extension (VCE) organized three hands-on workshops across southwest Virginia for produce growers to provide a risk-based framework to increase food safety from farmer to

consumer. The “Food Safety Best Practices for Farmers Market Growers” were held in Christiansburg on November 2 (cancelled for lack of participants), Abingdon on December 1, and the third is planned in Roanoke on Jan 25. Certifications for participation will be awarded, however may not increase market access as much as GAP certification.

3.) Technical Assistance and Business Training to Scale up Production, Ensure Produce Consistency, as well as Support Marketing and Pricing

Many institutional and wholesale buyers, such as Produce Source Partners, require large quantities of product and find difficulty in working with small to medium-sized farmers (B. Wilkerson, personal communication 2016). Similarly, farmers have indicated that producing large enough quantities for buyers is challenging given their current operations. Regular and cold storage is also a concern potentially related to scaling up. Many institutional and wholesale buyers also require product consistency including food grade, quality, quantity, and delivery. Farmers have indicated seasonality limits product consistency, and season extension assistance has been suggested to mitigate these issues. Farmers have also called for assistance in market expansion, product pricing, enterprise diversification, and AgTech. These issues were identified in the CSC Study, Botetourt Plan, MC Report, Floyd Growers Roundtable, NRV Plan, Farm to Table Report, Martinsville Study, and the Local Foods Committee in January 2016. In the CSC Study, survey respondents stated that one of the most important ways that the CSC could support and strengthen the regional food system would be to assist producers with technical assistance including business planning, operations management, direct marketing, and scaling-up.

4.) Regional Aggregator, Distributor, and/or Networking Entity, Potentially a Local Food Hub

The 2015 report to Congress (Trends in U.S. Local and Regional Food Systems) identified barriers for institutions purchasing locally which include inadequate availability, inconvenience, and not knowing where to purchase local food or what is available. A food hub could address some of the concerns of institutional buyers (regarding quantity) and some of the concerns of farmers (regarding aggregation, storage, and distribution). The report to congress also identified 302 food hubs in the US in 2014: 40% privately held businesses, 30% nonprofits, and 20% cooperative models. Further, over 40% of the hubs offered technical assistance, including business management and food safety training. The 2015 Botetourt Plan suggested that “the Roanoke Valley should be able to support a local food hub” (p. 38).

A networking entity could connect producers, buyers, and consumers more easily. The Region 2000 Plan suggests holding regular meetings to facilitate local food purchases. The Martinsville Study recommends creating a network between buyers and producers. The CSC Study, Botetourt Plan, Region 2000 Plan, MC Report, and Local Foods Committee in January 2016 all suggested a food hub. The Region 2000 Food Hub Study provides a business plan for a food hub in the area around Lynchburg. Challenges related to aggregation, storage, and distribution have been included in the CSC Study, AV Assessment, Botetourt Plan, and MC Report.

5.) Local USDA- and State-Approved Produce Processing and/or Slaughter Facility

According to the 2015 report to Congress, even though the demand for locally sourced animal products has increased, the number of small federally inspected cattle slaughtering plants has declined by 12% from 2011 to 2013. Small slaughterhouses are important to a local food system

because small facilities can cater to the needs of small producers in a number of ways, including custom cuts and processing animals of different sizes. There are a limited number of slaughter facilities in the region, and many reports suggest constructing additional operations in and around the Roanoke Local region.

Also suggested, though not as frequently as the abovementioned, were produce processing facilities. Prepackaged and canned foods can increase the marketability of produce. However, SustainFloyd highlighted the challenges of constructing larger operations in the region (see p. 19), and on-farm USDA-approved kitchens may prove more useful to local produce farmers. There has been a call for added processing facilities (meat and/or produce) in the CSC Study, AV Assessment, Botetourt Plan, Floyd Growers Roundtable, NRV Plan, and was an issue identified by the Local Foods Committee in January 2016. It may be appropriate to consider this recommendation as a facet of recommendation 4, “Regional Aggregator, Distributor, and/or Networking Entity, Potentially a Local Food Hub”

6.) Beginning Farmer Education, Outreach, and Financial Assistance

The average age of farmers is getting older and few young people are entering farming as a career path. Given these demographic trends, as a region, we need to understand the barriers for people entering the field and how we can better support young/new farmers. The Botetourt Plan mentioned the county had not hosted a beginners farm program to teach the skills needed to launch a successful farming operation. Often times, farmers experience low economic returns for hard labor due to market trends and consumer preferences. Existing farmers experience challenges with a lack of experienced and reliable labor force. The CSC Study, Botetourt Plan, and Region 2000 Plan all suggest beginning farm and workforce training. In the CSC Study, survey respondents ranked “train, incubate, or support new producers” as the second most impactful way the CSC could support and strengthen the regional food system, after “champion sustainable agriculture/Sustainability practices as a model or advocate.” The Martinsville Study recognized a need to attract young people to a farming career. To reach youth, FFA and 4-H groups could be targeted for farm apprenticeships, and the potential to give school credit to those who participate in farm internships might be explored.

Virginia Tech hosts the Virginia Beginning Farmer and Rancher Coalition Program (VBFRCP), an excellent resource for this work that is already organizing a number of relevant trainings across the state. The coalition has also organized focus groups and surveys to gather information from new farmers. The 2012 “Virginia Beginning Farmer and Rancher Coalition Survey Final Report” and the 2014 report, “An Evaluation of Program, Training, and Resource Needs of Virginia Beginning Farmers and Ranchers” together indicated top priorities and challenges for new farmers. The 2014 report offers a list of recommendations from farmers including an online technical assistance program, alternative learning opportunities, and whole farm planning. The 2012 report offers preferences for educational program delivery with “one-day workshop” and “online materials” ranked first and second. It is clear that these two reports could be useful when pursuing recommendation 3, “Technical Assistance and Business Training to Scale up Production, Ensure Produce Consistency, as well as Support Marketing and Pricing.”

7.) Consumer Education and Outreach

Farmers have called for consumer education on the “true cost” of farming, food characteristics (such as blemishes), seasonality, and the importance of buying locally grown foods. This may help customers understand why locally-grown produce may look and be priced differently compared to produce from a grocery store. Also, additional outreach on existing incentive programs and SNAP-acceptance at farmers markets may increase the consumer base for local foods. Consumer education

and outreach was recommended in the CSC Study , AV Assessment, Floyd Growers Roundtable, NRV Plan, SA Reports, and Martinsville Study.

8.) Virtual Local Food Guide and Networking Platform

There have been calls for a virtual platform to catalogue and share resources as well as promote interactions among producers, consumers, and other food chain actors. Coordinated local food guide/network was part of the CSC Study, Botetourt Plan, Region 2000 Plan, Floyd Growers Roundtable, NRV Plan, Martinsville Study, and the 2014 VBFRCP report. In 2016, LEAP applied for funding to retool the existing online Roanoke Valley Locavore Food Directory, though funding was not awarded. Various other platforms have been organized, including Facebook pages by the Virginia’s Community, Local, and Regional Food Systems Team and the Appalachian Virginia Food System Council – Network as well as a local foods webpage by the Roanoke Valley-Alleghany Regional Commission. These existing models could be built upon to cater the needs of regional food system stakeholders.

9.) A Local Food Council or Working Group

Most of the studies reviewed for this assessment identified the need for regional collaboration and government involvement to promote local food. The Martinsville Study offers forming a policy council, coalition, or working group that represents all food system stakeholders as a strategy to move forward with local food work. In the CSC Study, survey respondents ranked “serve as catalyst/connector for food system issues/stakeholders” as one of the most impactful way the CSC could support and strengthen the regional food system. Both the NRV and Botetourt Plans recommend creating an Agricultural Development Board or other organization to facilitate community and regional collaboration. The 2015 Assessment of Food Access in Roanoke City recommended that the existing Roanoke Local Foods Committee could be used to form a food policy council for the region.

Both the Virginia Food Systems Council and the Appalachian Virginia Food Systems Council–Network connect food systems stakeholders throughout the region. Therefore, it may not be necessary to create an additional network model. Based on Burgan and Winnie’s 2012 publication, “Doing Food Policy Councils Right: A Guide to Development and Action,” a policy council’s primary goals include:

- connect economic development, food security efforts, preservation and enhancement of agriculture, and environmental concerns
- support the development and expansion of locally produced foods
- review proposed legislations and regulations that affect the food system
- make recommendations to government bodies
- gather, synthesize, and share information on community food systems

In food policy councils, these goals are typically carried out through policy work and education rather than projects. While policy reform or creation is often imperative to, and can even be a more sustainable route to, local food system development, many of the recommendations gathered from across the Roanoke Local region are project-based. Therefore, a broad council model with working groups could allow members to pursue tangible results and still support and guide these projects through policy development and information gathering.

Many stakeholders currently participate in the Local Foods Committee, and part of this assessment was to ensure that stakeholders are representative of regional food system players. The Local Food

Committee has worked to increase connections between groups working on food systems issues in the region, and has included:

Appalachian Foodshed Project
Blue Ridge Soil & Water Conservation District
Botetourt County – Tourism
Carilion Clinic Outreach
Catawba Meadow Farm
City of Roanoke – Economic Development
City of Roanoke – Planning
City of Salem
County of Roanoke – Planning
County of Roanoke – Economic Development
Feeding America Southwest Virginia
Flying Pigs Farm
Food Writer – Roanoke Times
Four Corners Farm
Freedom First
Grandin Gardens
Group Epignosis
Healthy Roanoke Valley
Jeter Farm
LEAP
Lick Run Farm
Local Roots
Local Table
Mountain Castles Soil & Water Conservation District
Private Citizens
VT Students
Roanoke Community Garden Association
Roanoke Natural Foods Co-op
Town of Vinton
United Way of Roanoke Valley
USDA, Rural Development
Virginia Cooperative Extension
Virginia Tech (VT) Agriculture & Applied Economics
VT Office of Economic Development
VT Planning, Governance, and Globalization
VT Catawba Sustainability Center
VA Western Community College

The following stakeholders should also be prioritized in the formation of a Local Food Council or Working Group:

Agriculture Development Boards
Appalachian Rising Farmers Cooperative
Appalachian Virginia Food Systems Network (avfsn@googlegroups.com)
Blue Ridge Market Manager Group
Colleges and Universities
Community, Local, and Regional Food Systems Stakeholders (clrfs-vce-g@vt.edu)
Economic Development and Planning Offices
Farmers Markets (listed in Appendix B)

Food Hubs and Aggregators (listed in Appendix B)
Locally-sourcing Restaurants (listed in Appendix B)
New London Community Cannery
Peaks Slaughterhouse
Plenty!
Produce Source Partners
Seven Hills Food
School System Food Service Directors
Schrock's Slaughterhouse
SustainFloyd
Soil & Water Conservation Districts
Virginia Cooperative Extension Agents
Craig – Andy Allen, geallen@vt.edu
Botetourt – Mary Kate Lawrence, mcl87@vt.edu
Bedford – Scott Baker, scbaker@vt.edu
Roanoke – Kathleen Reed, reedka@vt.edu
Franklin – Chris Brown, cbrown04@vt.edu
Floyd – John Vest, jmvest@vt.edu
Montgomery – Kelli Scott, kescott1@vt.edu
Virginia Farmers Market Association
Virginia Agricultural Development Officers Group (which includes Botetourt County)

Farmers are important, if not the most important, players in the local food system. Farmers can be reached through farmers markets, VCE, and existing local food and farm directories.

The Johns Hopkins Center for a Livable Future's Food Policy Networks project supports the development of effective state and local food policy through networking, capacity building, research, and technical assistance. The organization works directly with food policy councils, national organizations, and other groups seeking to improve the food system through public policy. The recently published resource, "Framing the Future: A planning resource for food policy councils," and the aforementioned 2012 publication by Burgan and Winnie could be utilized by the Local Foods Committee during the strategic planning stage.

10.) Farmer Listening Sessions

The VCE Community, Local, and Regional Food Systems team works statewide and organized six sessions for VCE professionals October through November and two community-focused listening session at the Virginia Farmers Market Association Conference in November and the Farm to Table Conference in December. These sessions were designed as focus groups to determine how VCE is working, or could work, to enhance and support local food systems programs across the state. The sessions targeted questions such as "what does community, local, and regional food systems work look like in your community?" and "how can VCE best support your work?"

While this important work is underway, there has also been a call to gather farmers for networking and to discuss possible solutions to the challenges they face. Reports from farmer-focused listening session can help inform local government officials about economic, environmental, and social issues that affect local agriculture and food systems. A good example of a more regional farmer-focused listening session conducted in the area is the Floyd Growers Roundtable. In the Botetourt Plan focus groups, a lack of cohesion between the agriculture community and county government was

mentioned, and some participants suggested creating an advisory council to bring farmers together to help solve local agricultural problems and improve policy making. The Region 2000 Plan recommended county cattlemen’s association meetings to discuss direct marketing within and outside of the region.

Farmer- and community-focused listening sessions throughout the Roanoke Local region could be the first platform for communication to help inform the design and implementation of the above suggested projects. LEAP, in partnership with VCE will hold Farmer Listening Sessions in the Roanoke Local Region in January-March 2017. The information from these Listening Sessions will be shared widely.

These ten recommendations were consolidated from existing documents, and LEAP is only committed to the final suggested project, “Farmer Listening Sessions.” This report has been developed with the intention of being used by a wide array of organizations to inform and guide food systems work in and around the Roanoke Local region.



ROANOKE VALLEY
LOCAL FOOD PLAN
2020

