



The Economic Impact of Agritourism in Virginia's Fields of Gold Region

The agritourism industry in the Fields of Gold region is estimated to have generated \$22.4 million in sales in 2011. The total economic impact of the industry, including multiplier affects, is estimated to have been \$34.8 million that supported 811 jobs in the region in 2011.

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1. Executive Summary

Fields of Gold (FOG) is a regional agritourism¹ initiative that seeks to promote the abundance of agricultural resources in the Central Shenandoah Valley in Virginia. The initiative involves eleven counties and cities located in the Shenandoah Valley.² The FOG initiative aims to inventory and map the region's agricultural assets, to study the impact of agritourism on the local economy, and to promote the region as an agritourism destination. Chmura Economic & Analytics (Chmura) was contracted to study the economic impact of the agritourism industry in the FOG region; this included collecting both regional demographic and visitor profiles, and defining the size, economic impact, and the market potential of regional agritourism.

The demographic profile of the Fields of Gold region is one of slightly slower growth, less diversity, and lower educational attainment and average income when compared to the state.

- From 2000 through 2010, the pace of population change in the Fields of Gold region lagged slightly behind the state average, at 1.1% per year as compared with 1.2% for Virginia.
- The Census 2010 data indicate that the Fields of Gold region had a higher concentration of young adults and senior residents than the state as a whole in 2010.
- The Fields of Gold region has a higher concentration of white residents, and a much lower percentage of African-American residents than the state average. In 2010, 4.7% of the regional population was African-American compared with 19.4% in Virginia.
- Average educational attainment in the Fields of Gold region is lower than the state average. Based on U.S. Census estimates from 2006 to 2010, 23.1% of the regional residents age 25 and over had a four-year degree and higher, compared with 33.8% in Virginia.
- Average income in the Fields of Gold region is significantly below the state average. In 2010, the per capita income of the region was \$31,893, only 72% of the state average of \$44,267.

Based on surveys conducted by the Virginia Tourism Corporation (VTC), visitors to the Fields of Gold region have the following characteristics:

- In 2011, the majority of the visitors were from small households. Approximately 57% of visitors to the FOG region were from households with one or two people.
- For visitors in 2011, the average age of the heads of household was 47.7 years old. The age distribution of heads of household is fairly even among age groups over 18 years old, indicating that the FOG region has a broad appeal for families at all stages of their life cycles.
- Visitor ethnicity for each head of household in 2011 was mainly white (84%), while African-Americans were a distant second (8%).
- The household income of visitors to the FOG region was geared toward the high-income range, with 29% of visitor households having an annual household income higher than \$100,000, the largest income group.

¹ Section 2 formally defines agritourism in this study.

² Those 11 cities and counties that are collectively referred to as the Fields of Gold region in this report are: counties of Augusta, Bath, Highland, Rockbridge, Rockingham, Shenandoah, and cities of Buena Vista, Harrisonburg, Lexington, Staunton, and Waynesboro. Source: <http://www.cspdc.org/fieldsofgold/fieldsofgold.htm>

- In 2011, 46% of visitors to the FOG region were from Virginia. North Carolina, Maryland, Georgia, and Pennsylvania rounded out the top 5 states of FOG visitors. In terms of market areas, Roanoke-Lynchburg, Richmond-Petersburg, and Washington D.C. were the top metro areas for FOG visitors.
- The majority (85%) of visitors came to the FOG region for leisure purposes. Visitors on business trips accounted for 15% of total visitors in 2011.
- The size of travel parties to the FOG region tends to be small. In 2011, 45% of visitors were in a traveling party of two people, while 20% of visitors were traveling alone.
- The most popular activities in the FOG region for visitors are arts and cultural events, with 50% of surveyed visitors participating in such activities in 2011. The next most popular activities were entertainment/amusement, family activities, and nature and outdoor activities.
- Average spending of traveling parties to the FOG region was estimated at \$359 during their trips in 2011.
- Despite increasing popularity of planning and booking trips using online sources, visitors to the FOG region in 2011 still relied heavily on offline resources in planning their trips. However, the majority of visitors who made prior arrangements booked their trips online.
- Regarding interest level in agri/eco-tourism activities, a VTC Attitudinal survey indicated that 15% of survey responders were very interested and 28% of them were interested in such activities.

The Fields of Gold region has developed a wide variety of agritourism activities, with total sales reaching an estimated \$22.4 million in 2011.³

- The agritourism industry in the FOG region includes the following ten categories of business activities: ag-venues, experience the farm, farm stand, farmer's market, local foods restaurant, local grocery/store, on-farm lodging, pick-your-own, trout farm/aquaculture, and winery/brewery.
- Multiple data sources were used to identify the current inventory of agritourism businesses, including surveys conducted in the FOG region, the Virginia Department of Agriculture and Consumer Services database, as well as from local tourism and economic development officials.
- The study identifies 226 businesses in the region engaged in agritourism in 2011, with farm stands, local groceries/stores, and local foods restaurants occupying the largest three categories.
- The total size of the agritourism industry in the region is estimated to be \$22.4 million in 2011. Total agritourism sales are dominated by sales from both local foods restaurants and local groceries/stores, with estimated sales reaching \$10.7 million and \$3.3 million, respectively, in 2011.
- It is estimated that employment in the FOG regional agritourism industry totaled 704 in 2011, implying that each agritourism establishment had 3.1 workers.

The agritourism industry in the FOG region also supports other regional businesses, with the total annual impact of agritourism reaching \$34.8 million and supporting 811 total jobs in 2011.

- Adding direct, indirect, and induced impact the total economic impact of agritourism industry in the FOG region is estimated to be \$34.8 that supported 811 jobs in 2011.
- The agritourism industry also contributed \$0.7 million in tax revenues for local governments which came from sales, meals, lodging, and BPOL taxes. The corresponding state tax revenue is estimated to have been \$1.2 million in 2011 which came from sales, individual, and corporate income taxes.

³ The survey asked respondents to report their annual revenues from agritourism. Since the survey was conducted in late 2011 and early 2012, the reported annual numbers are interpreted as from 2011, the latest full year before the survey.

- The regional agritourism industry can enjoy strong growth in the future. Assuming the existing visitors to the FOG region provide the potential market for agritourism growth, then if the industry can capture those visitors who show interest in agritourism, industry sales can grow 9.5% per year in the next decade.
- Table 1.1 summarizes the economic impact of agritourism in the FOG region.

Table 1.1: Fields of Gold Agritourism Impact Summary

	Direct Impact (\$Million)	Total Impact Including Multipliers (\$Million)	Local Tax Revenue (\$Million)	State Tax Revenue (\$Million)
Spending	\$22.4	\$34.8	\$0.7	\$1.2
Employment	704	811		

Source: Chmura Economics & Analytics

This is a significant market potential for the regional agritourism industry to capture.

- For visitors living outside the Shenandoah Valley, the most promising market potential lies in attracting more exiting tourists to agritourism establishments, who already visit the FOG region. VTC estimates that in 2010, total tourism spending in the FOG region reached \$950 million.⁴ Agritourism was only a small part of the total tourism industry in the region.
- The marketing effort should be focused more locally on those visitors already in the region, which can provide sufficient future growth opportunities for the regional agritourism industry.
- Based on data from the VTC, Chmura estimates that there were about 6.7 million visitors (traveling more than 50 miles) to the FOG region in 2010. If 15% of the visitors that are very interested in agri/eco-tourism can be converted to actual visitors, the potential out-of-region agritourism visitors to the region can reach 1.0 million; this is more than triple the existing out-of-region agritourism visitors, which is estimated to be 325,915 in 2011. If visitors who are interested in agritourism are included, the total out-of-region visitors can reach 2.9 million per year.
- Assuming that only those very interested in agritourism are readily attracted, that the market potential cannot be realized overnight, and that it may take years to reach that potential, then if it takes 10 years to reach that potential, the annual average growth of out-of-region agritourism visitors can reach 12.0% per year—much faster than current growth in local agritourism visitors.

There is significant potential in developing agritourism in the FOG region.

- Combining agritourism visitors from both local sources and those from outside the region, Chmura estimates that the number of agritourism visitors to the FOG region can grow 6.2% per year in the next 10 years.
- In terms of total agritourism sales, they can expand at an annual rate of 9.3% per year, as average spending per visitor can also increase with income growth.

⁴ Source: VTC website, available at: <http://virginiascan.yesvirginia.org/localspending/localspending.aspx>. VTC defines tourists as those traveling more than 50 miles. As a result, this number cannot be directly compared with the size of agritourism estimated by Chmura.

- The above estimate is conservative, as it only considers those visitors who expressed strong interest in agritourism. In addition, it allows a relatively long time for the market potential to realize. If all the visitors interested in agritourism are included, the number of regional agritourism visitors can grow 9.4% per year, with total sales growing 12.5% per year.

Chmura conducted case studies on five agritourism establishments in the FOG region to help understand factors that contribute to both growth and success in agritourism.

- Polyface, a 550-acre family-owned farm in Augusta County, conducts tours to educate visitors on why their unique approach to farming produces superior products. Owner Joel Salatin is a gifted storyteller and captivating speaker; these qualities have driven the enormous success of Polyface's agritourism operations.
- Posey Thisisit Llama Farm welcomes a wide variety of visitors for tours, parties, and fiber classes. The farm offers visitors a unique and personal experience and has benefited from its interconnectedness with other local businesses, including wineries and bed & breakfasts.
- Fort Lewis Lodge is a country inn situated on 3,200 acres in Bath County. Guests are offered an opportunity to participate in natural activities and enjoy fine contemporary American dining in a magnificent setting.
- Situated on 25 acres in Rockingham County, White Oak Lavender Farm is a family-owned lavender farm with a retail store. It is a popular destination because of its broad appeal, the hospitality the owners and staff offer to visitors, its relationship with a large local resort as well as other nearby establishments, and its ability to offer a unique and educational experience to visitors.
- Mountain View Farm in Rockbridge County is a 250-acre dairy farm which produces Grade A dairy products, as well as inspected beef and pork. Agritourism operations are currently only a small portion of the farm's business, but a farm store is in the works. Mountain View Farm's lack of competition and a movement toward the consumption of local food have both played important roles in the farm's transition to becoming a well-known maker of farmstead cheese.

Based on these case studies, at least three factors are needed for success. First, the agritourism site must have an attraction, whether it is aesthetic beauty, a product, or a unique farming practice, to draw visitors. Second, the agritourism site needs a champion. An individual who promotes its benefits needs to interface with the tourists. Third, marketing is needed to attract potential customers. The internet has helped in this regard, but many of the sites visited rely heavily on word-of-mouth referrals. Some case study participants cited marketing as a significant issue. This suggests that marketing is an area where an organization such as Fields of Gold can provide assistance, by providing grants or funding, training, and professional services in marketing, and graphic and web design to agritourism operators.



2. Background

Agricultural tourism, or agritourism, is gaining popularity in recent years around the country, as visitors seek authentic local products and experiences. As a result, agritourism has become an important economic development tool for rural communities around the country. In Virginia, the Central Shenandoah Valley⁵ is one of the most important agricultural regions in the state. Agriculture plays a fundamental role in the region's community and economic health. The Central Shenandoah Valley is characterized by an abundance of historic farms, wineries, orchards, family farms, and more. The region has nearly 6,000 farms on 911,000 acres of farmland—home to three of the top five agricultural counties in Virginia. Over a quarter of the total value of agricultural products sold in Virginia are from the Central Shenandoah Valley.⁶

For many of the family farms, orchards, and vineyards, which are competing with global agribusiness firms, agritourism can be a path to additional income and sustainability. Agritourism can also serve as a valuable marketing tool for family farmers to reach and cultivate a loyal customer base. As a result, agritourism can be an integral economic development strategy for regions endowed with rich agricultural resources such as the Central Shenandoah Valley.

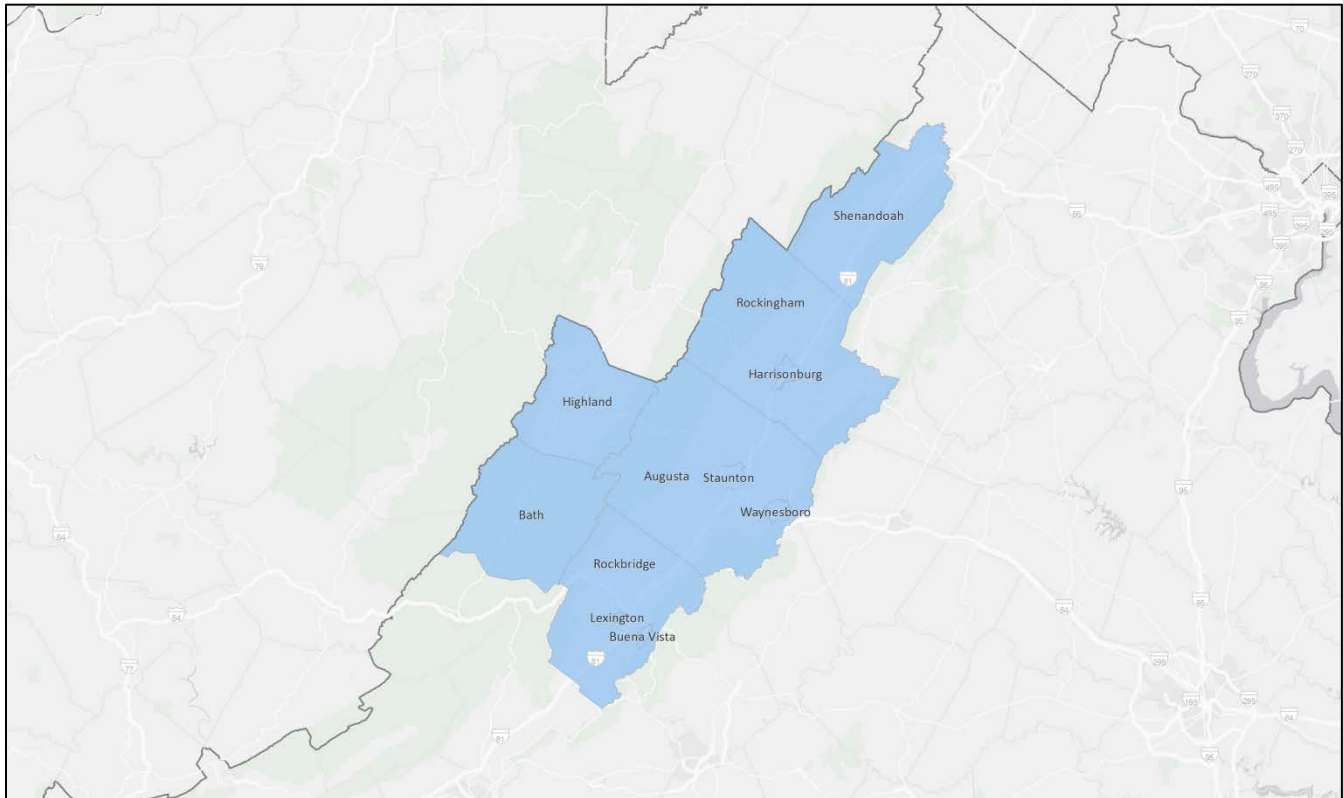
Under that backdrop, the Central Shenandoah Planning District Commission (CSPDC) developed the Fields of Gold initiative. Fields of Gold is a regional agritourism initiative that seeks to promote the abundance of agricultural resources in the region. This initiative involves eleven counties and cities located in the Shenandoah Valley (Figure 2.1).⁷ This initiative aims to inventory and map the region's agricultural assets, to study the impact of agritourism on the local economy, and to promote the region as agritourism destinations. Part of that initiative is to evaluate the current economic impact of agritourism in the region. Chmura Economic & Analytics (Chmura) was contracted to conduct such a study.

⁵ Central Shenandoah Valley refers to the cities and counties in Central Shenandoah Planning District Commission (CSPDC). Those localities are different from localities included in the FOG region.

⁶ Source: <http://www.cspdc.org/fieldsofgold/valleyagriculture.htm>.

⁷ Those 11 cities and counties that are collectively referred to as the Fields of Gold region in this report are: counties of Augusta, Bath, Highland, Rockbridge, Rockingham, Shenandoah, and cities of Buena Vista, Harrisonburg, Lexington, Staunton, and Waynesboro.

Figure 2.1: Fields of Gold Region



In this study, agritourism in the Fields of Gold region comprises the following 10 categories of business activities:

1. **Ag-Venues:** Farm events and activities; facilities for meetings or weddings; activities such as hay rides and corn mazes
2. **Experience the Farm:** A farm that offers on-the-farm experience, such as tours, a petting zoo, or horseback riding
3. **Farm Stand:** A site, typically on-farm, that primarily sells goods produced on the farm
4. **Farmer's Market:** A market for vendors of local produce and value-added goods
5. **Local Foods Restaurant:** Restaurants with an emphasis on serving locally produced dishes
6. **Local Grocery/Store:** Retail locations that specialize in or sell locally raised/grown products
7. **On-Farm Lodging:** Cottages, bed & breakfasts, and rentals located in an agricultural setting
8. **Pick-Your-Own:** Farms where individuals can pick their own fruit, berries, vegetables, corn, pumpkins, and Christmas trees
9. **Trout Farm/Aquaculture:** Fish hatcheries and farms that sell to the public; fee fishing
10. **Winery/Brewery:** Local producers of alcoholic beverages, primarily using locally grown ingredients

The economic impact of agritourism comes primarily from the total sales or revenues from the above activities. As a result, the first step in evaluating the economic impact of agritourism is to inventory the regional businesses engaged in the above activities, and to estimate their sales. The sales from those activities constitute the direct spending impact of regional agritourism.

The total economic impact of the industry includes the economic ripple effects in the FOG region from the direct impact. Ripple effects, categorized as indirect and induced (see Appendix 1 for definitions), measure the secondary

benefits generated by agritourism in the region. These effects include the benefits for regional businesses supporting agritourism (indirect impacts), as well benefits for regional businesses from agritourism workers spending their income in the region (induced impacts).

CSPDC conducted a survey on the regional agritourism industry in 2011 and 2012. The survey data are the core components of the agritourism inventory in the region. Chmura supplemented the survey data with data from the Virginia Department of Agriculture and Consumer Services database, as well as from local tourism and economic development officials, to estimate the impact of agritourism in the region. Both the indirect and induced impacts were estimated with the IMPLAN Pro⁸ software after the direct impact was determined. In addition, Chmura also estimated local and state tax revenues that can be generated by the agritourism.

In addition to estimating the economic impact, Chmura also conducted case studies on five agritourism operators in the FOG region. The purpose of those case studies is to identify factors that contribute to the success of their agritourism operations, and to gather insight that would assist the efforts of community leaders promoting agritourism in the region.

The rest of the report is organized as follows:

- Section 3 summarizes the demographic profile of the FOG region.
- Section 4 describes the characteristics of the current visitors to the FOG region.
- Section 5 analyzes the economic impact of agritourism in the FOG region.
- Section 6 assesses the market potential for future agritourism development.
- Section 7 summarizes the case studies findings.

⁸ *IMPLAN Professional* is an economic impact assessment modeling system developed by a Minnesota IMPLAN Group that is often used by economists to build models that estimate the impact of economic changes on local economies.

3. Regional Demographic Background

A regional demographic profile is important for an agritourism study because it provides an understanding of the residential base that can support the local industry. See Section 6, “Assessment of Market Growth” for an application of regional demographics in agritourism spending in the Fields of Gold region.

3.1. Population Growth

Population growth is an important indicator of an expanding economy and of vibrant communities. Both an expanding labor force and thriving economy attracts new residents. Further, the influx of people into an area stimulates the housing market, retail business, and overall consumption (including agritourism) resulting in a larger tax base for the community.

Table 3.1: Fields of Gold Region Population and Growth

	Population 2000	Population 2010	Average Annual Growth Rate
Augusta	65,615	73,750	1.18%
Bath	5,048	4,731	-0.65%
Highland	2,536	2,321	-0.88%
Rockbridge	20,808	22,307	0.70%
Rockingham	67,714	76,314	1.20%
Shenandoah	35,075	41,993	1.82%
Buena Vista	6,349	6,650	0.46%
Harrisonburg	40,453	48,914	1.92%
Lexington	6,867	7,042	0.25%
Staunton	23,853	23,746	-0.04%
Waynesboro	19,520	21,006	0.74%
Fields of Gold Region	293,838	328,774	1.13%
Virginia	7,079,030	8,001,024	1.23%

Source: US Census

The total population in the Fields of Gold region was 328,774 based on the April 2010 Census.⁹ From 2000 through 2010, the pace of population change in the Fields of Gold region lagged slightly behind the state average. The population of the Fields of Gold region grew at an annual rate of 1.1% per year, compared with 1.2% population growth statewide. Within the Fields of Gold region, the highest growth rate was in city of Harrisonburg (+1.9% per year), followed by Shenandoah County (+1.8%), both growing faster than the state as a whole. Both Augusta and Rockingham counties grew at a similar rate as the state of Virginia. The population rate decreased an average of 0.9% per year in Highland County over the decade. Bath County and the city of Staunton also suffered population decline during the decade.

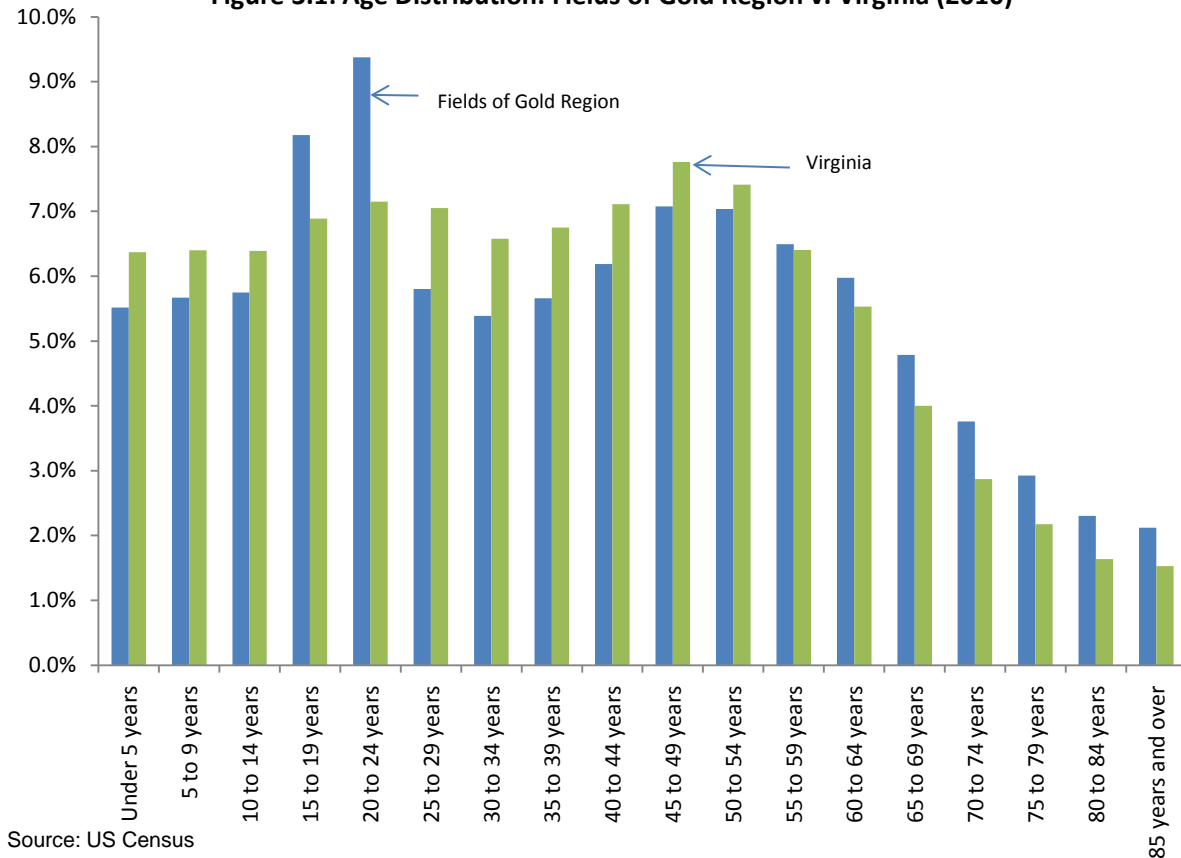
3.2. Age Distribution

Age distribution is affected by birth, death, and migration rates. An aging population implies more need for health care and related services for a region. On the other hand, a younger population indicates that they will flow into the

⁹ Source: U.S. Census.

workforce of the future. If a regional economy cannot support them, the region may risk losing the young population.

Figure 3.1: Age Distribution: Fields of Gold Region v. Virginia (2010)

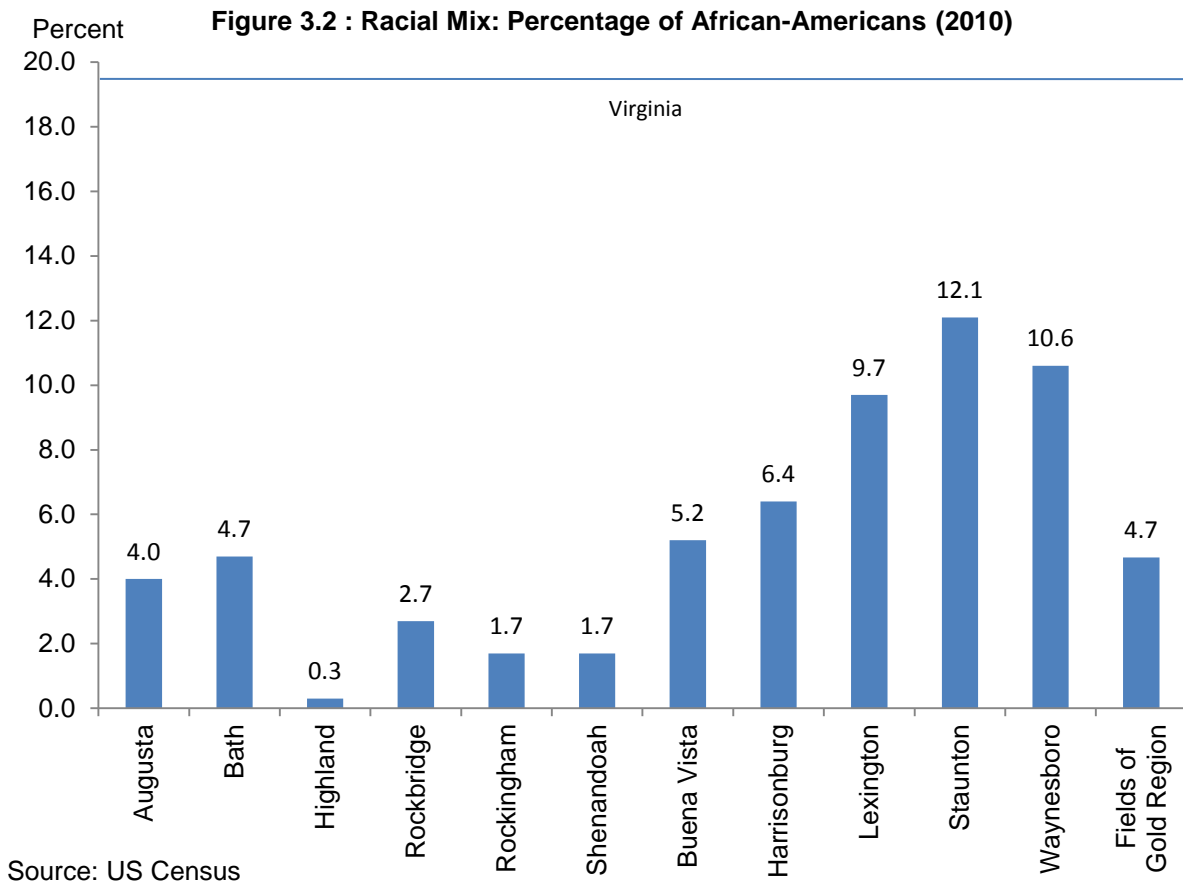


The age distribution of the Fields Gold region indicates that the region has a higher concentration of young adults and senior residents than the state as a whole. In 2010, 17.6% of the regional population was between 15 to 25 years old, compared to 14.0% in Virginia. The concentration of several well-known colleges and universities in the region, including James Madison University, Virginia Military Institute, Mary Baldwin College, and Washington and Lee University, contributed to the high percentage of college-age young adults in the region. However, there is a sharp drop in the percentage of residents between 25 and 35 years old. Only 11.2% of the regional population was between 20 and 35 years old, while 13.6% of the state population belonged to that age group, indicating that many of the college graduates leave the region looking for career opportunities. On the other hand, the region also has a higher concentration of senior citizens. In 2010, 15.9% of the regional population was over 65 compared to only 12.2% in the state.

3.3. Race Distribution

The Fields of Gold region has a higher concentration of white residents, and a much lower percentage of African-Americans than the state average. According to data from the 2010 Census, 89.6% of the Fields of Gold region population was white and 4.7% was African-American. By comparison, 68.6% of Virginia's population was white and 19.4% was African-American during the same period. The racial composition of the region varies greatly by locality as shown in Figure 3.2. In general, cities in the Fields of Gold region are more racially diverse than are counties. The city of Staunton had the highest proportion of African-Americans at 12.1% in 2010, followed by

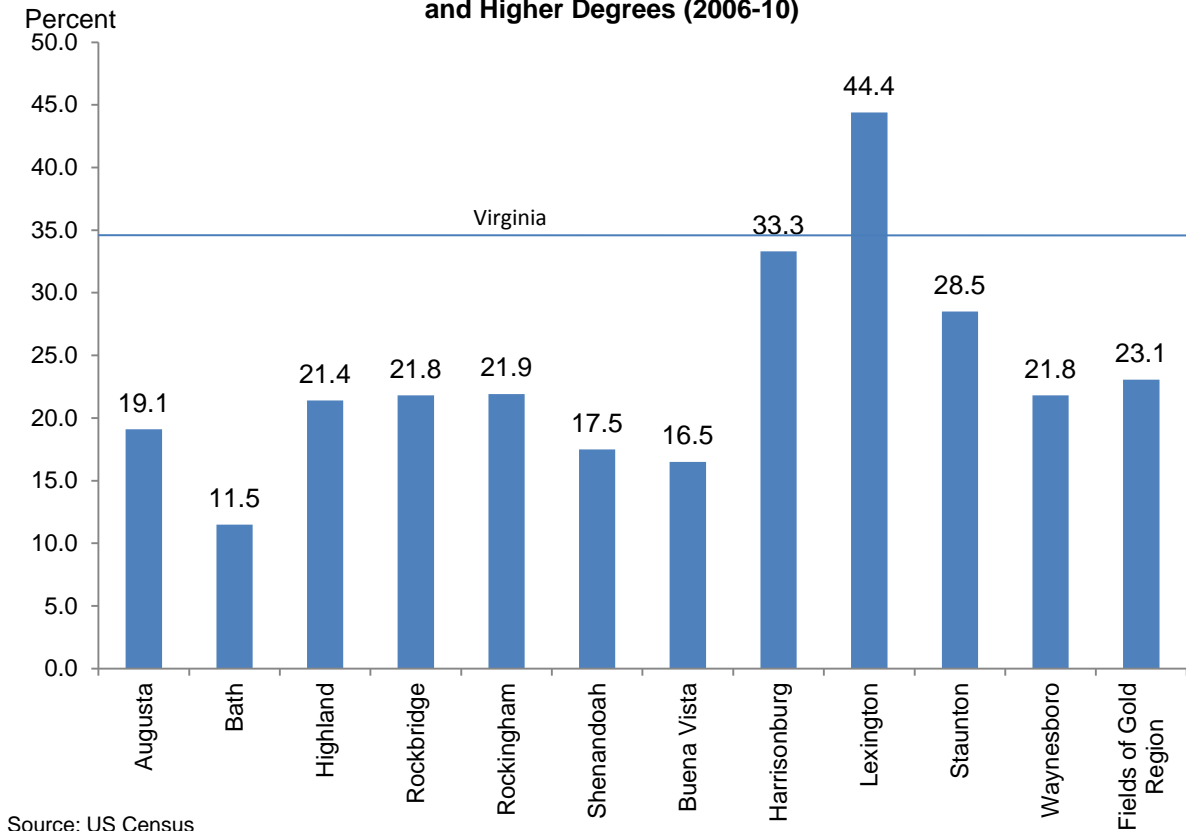
Waynesboro with African-Americans making up 10.6% of its population. Even those cities paled in comparison with the state average, in terms of minority population percentage. On the other hand, less than two percent of Highland, Rockingham, and Shenandoah Counties' population was African-American in 2010.



3.4. Educational Attainment

Average educational attainment in the Fields of Gold region is lower than the state average, but it varies by locality. Based on the U.S. Census estimates, 80.4% of regional residents age 25 and over from 2006 to 2010 had at least a high school diploma or equivalent and 23.1% had a four-year degree and higher. Over the same period, 86.1% of Virginia residents age 25 and older had at least a high school diploma or equivalent and 33.8% had a four-year degree and higher (Figure 3.3). One of the most educated localities in the Fields of Gold region is Lexington, with 44.4% of its residents age 25 and over having a four-year degree and higher. Second was Harrisonburg, with 33.3% of its residents age 25 and over having a four-year degree and higher. As mentioned before, several colleges are located in those two cities, resulting in generally higher educational attainment. Residents of Bath County are slightly less educated than the region as a whole, with only 11.5% of its 25 and older population having a four-year degree and higher.

Figure 3.3 : Educational Attainment: Percentage of Adults With Four-Year and Higher Degrees (2006-10)



3.5. Personal Income

Average income in the Fields of Gold region is significantly below the state average. In 2010, the annual per capita income of the region was \$31,893, about 72% of the state average of \$44,267. Not only is the income level of the region lower than the state average, but income growth in the region also trails the income growth in the state. Annual income growth in the region was 3.1% per year from 2000 through 2010, as opposed to 3.4% per year in Virginia. Bath County had the highest per capita income in the region at \$35,823 in 2010. Per capita income in Highland County grew the fastest in the region at 4.1% per year over the decade. The per capita income depends on the economy of the region. The Fields of Gold region has a higher concentration of agriculture and manufacturing industries, and less high-paying professional and service industries, as compared to the rest of Virginia.

Table 3.2: Fields of Gold Region Per Capita Income and Growth

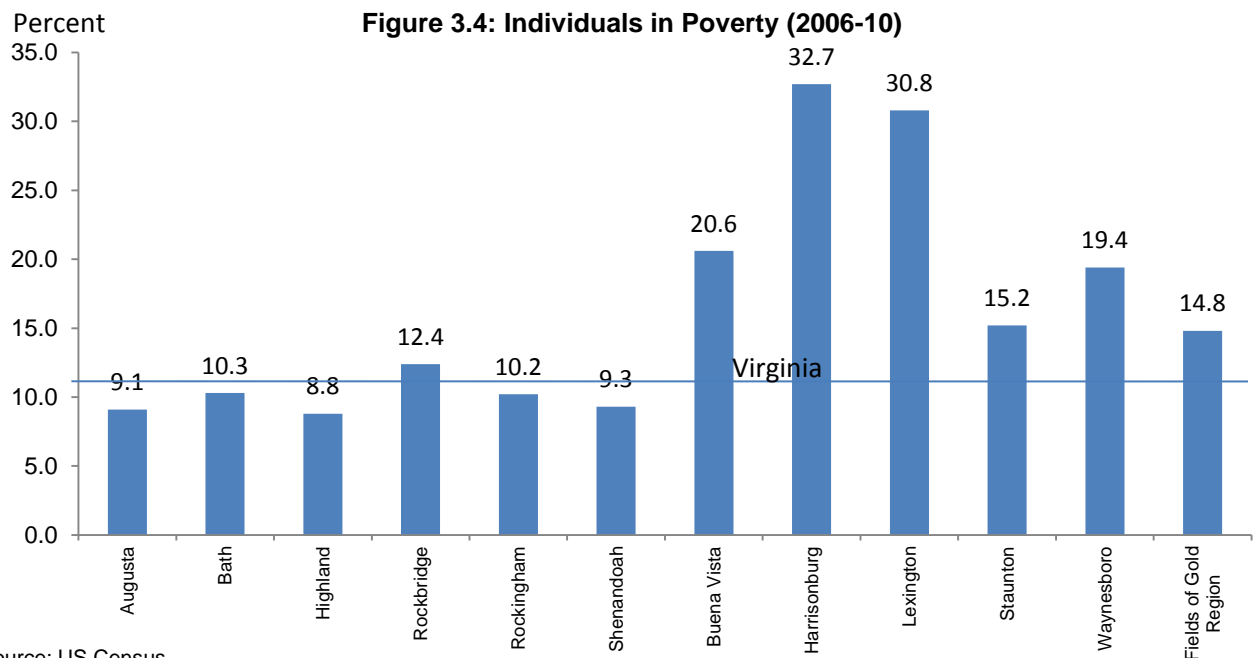
	Per Capita Income 2000	Per Capita Income 2010	Average Annual Growth Rate (2000-2010)
Augusta	\$24,493	\$33,502	3.2%
Bath	\$26,212	\$35,823	3.2%
Highland	\$23,590	\$35,296	4.1%
Rockbridge	\$22,090	\$30,854	3.4%
Rockingham	\$22,700	\$30,451	3.0%
Shenandoah	\$23,945	\$31,909	2.9%
Buena Vista	\$22,090	\$30,854	3.4%
Harrisonburg	\$22,700	\$30,451	3.0%
Lexington	\$22,090	\$30,854	3.4%
Staunton	\$24,493	\$33,502	3.2%
Waynesboro	\$24,493	\$33,502	3.2%
Fields of Gold Region	\$23,511	\$31,893	3.1%
Virginia	\$31,643	\$44,267	3.4%

Note: Only one estimate is made for the combined regions of Augusta+Staunton+Waynesboro, Rockbridge+Buena Vista+Lexington, and Rockingham+Harrisonburg.

Source: Bureau of Economic Analysis

3.6. Poverty

Per capita income is negatively correlated with poverty. Due to the region's lower average income, the region has a higher percentage of individuals living in poverty compared to the state. The Census Bureau's 2006-2010 American Community Survey estimated that 14.8% of individuals in the Fields of Gold region were in poverty compared to 10.3% in Virginia (Figure 3.4). All independent cities in the Fields of Gold region, such as Harrisonburg, Lexington, Buena Vista, Staunton, and Waynesboro had poverty rates higher than the regional average. The counties of Highland, Augusta, and Shenandoah had the lowest poverty rates at 8.8%, 9.1%, and 9.3%, respectively.



Source: US Census

4. Fields of Gold Regional Visitor Profile

Since no visitor survey was taken for this project that specifically targets agritourists in the FOG region, two surveys conducted by the Virginia Tourism Corporation (VTC) were utilized to analyze visitor characteristics in the FOG region. The first is the VTC Visitor Survey of Virginia travelers,¹⁰ which provides a profile of general visitors to the FOG region. The other is a VTC Attitudinal survey of potential Virginia visitors, which shows visitor interests in particular agritourism activities.

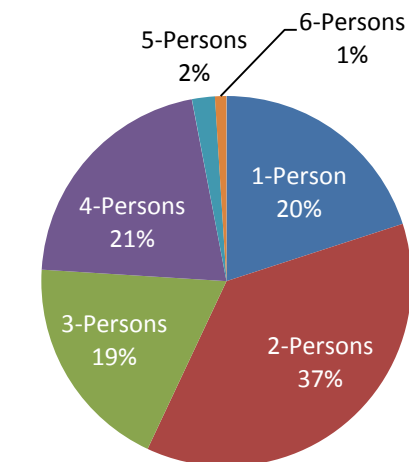
4.1. General Visitor Profile

VTC conducts an annual Virginia visitor survey, collecting data on visitors across the state. In 2011, VTC surveyed 1,946 visitors to Virginia. A small subset of those people visited cities and towns in the FOG region. Specifically, the VTC survey identified 150 visitors to the following four cities in the FOG region—Lexington, Harrisonburg, Staunton, and Waynesboro. The visitor profile in this section is compiled based on the sample of those 150 visitors in 2011.¹¹

4.1.1. Demographics of Visitors

In 2011, the VTC survey indicated that the majority of visitors were from small households. Of visitors to the FOG region, 20% were from single-person households, 37% were from 2-person households, 19% were from 3-person households, and 21% were from 4-person households. The household sizes are more or less evenly distributed among 1-person, 3-person, and 4-person households.

Figure 4.1: Household Size



Source: VTC

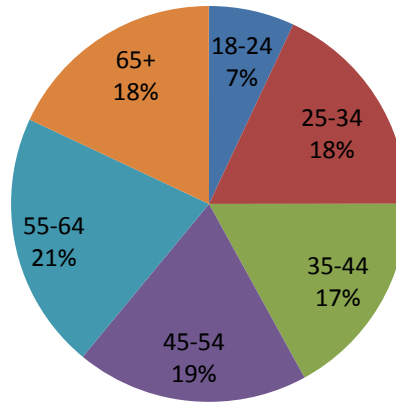
For visitors to the FOG region in 2011, the average age of the head of household was 47.7 years old. Head of households between 55 and 64 years of age accounted for 21% of the surveyed respondents, the largest age cohort of all. With the exception of the 18-24 age bracket, age distribution for head of households is fairly even

¹⁰ VTC defines a Virginia visitor as any visitor to Virginia who has traveled more than 50 miles from his or her home.

¹¹ Unfortunately, the VTC survey does not identify visitors based on the counties they visited. Consequently, the results in this section should be interpreted with caution.

among all other age groups. This indicates that the FOG region has a broad appeal for families at all stages of their life cycles. This broad appeal implies that the region has a diverse base of tourism assets, from arts and cultural events that cater to older visitors, to outdoor and adventure sports that appeal to younger visitors.

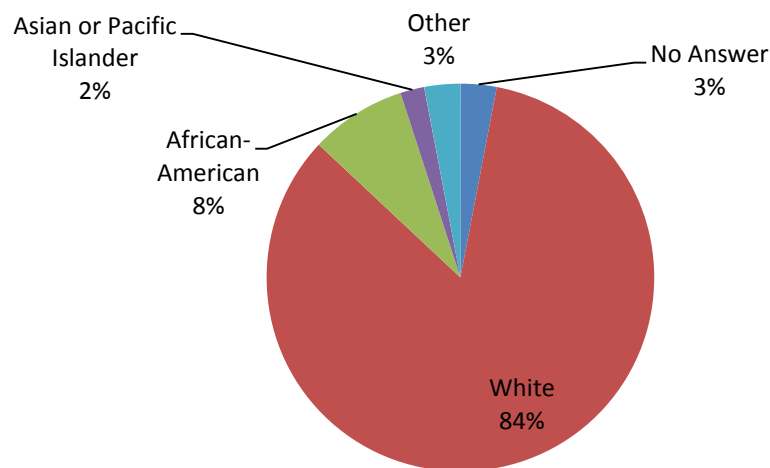
Figure 4.2: Age of Head of Household



Source:VTC

In terms of the ethnicity of visitors who were head of households, the 2011 survey indicated that a vast majority (84%) were white, with African-Americans coming in a distant second (8%). In this survey, Hispanic origin was not listed as a separate ethnicity. Presumably, Hispanic households are included in the white households. The ethnicity distribution, shown in Figure 4.3, resembles that of the resident population in the area. This may be because the most popular motivation for travel to the FOG region is to visit family and relatives, and to participate in other family-related activities. This will be discussed in more detail later in this report.

Figure 4.3: Ethnicity of Head of Household



Source:VTC

The VTC survey shows that the largest percentage (30%) of visitors to the FOG region was households reporting more than \$100,000 in household income in 2011. The median household income of visitor households was around \$75,000 in 2011. On the other hand, 13% of visitor households made less than \$25,000 per year in 2011.

Household income is directly related to both the amount of money visitors spend in the FOG region and to the economic impact.

Table 4.1: Household Income Distribution

Less than \$25,000	13%
\$25,000-\$49,999	16%
\$50,000-\$74,999	22%
\$75,000-\$99,999	21%
\$100,000 and above	29%

Source: VTC

In term of visitor origins, the VTC survey found that in 2011, 46% of visitors to the FOG region were from Virginia. North Carolina, Maryland, Georgia, and Pennsylvania were the remaining top 5 states where FOG visitors traveled from. The top 10 states (listed in Table 4.2) accounted for 80% of all visitors to the region. Visitor origin has important implications in shaping the marketing strategy of the regional tourism industry in general and agritourism industry, in particular. To receive the highest effect of marketing effort, the Fields of Gold initiative should devote its marketing dollars to the places where most visitors originate.

Table 4.2: Top 10 States of Visitor Origins

Virginia	46%
North Carolina	7%
Maryland	6%
Georgia	5%
Pennsylvania	4%
New York	4%
Michigan	2%
Florida	2%
West Virginia	2%
New Jersey	2%
All Other States	20%

Source: VTC

The top three designated market areas (DMA) from which visitors to the FOG region originate are Roanoke-Lynchburg, Richmond-Petersburg, and Washington, D.C. Four of the top 10 DMAs are in Virginia, with Washington, D.C., encompassing Northern Virginia. All top 10 DMA regions are located within the eastern seaboard states, from New York to Atlanta, and all of them are within driving distances to the FOG region.

Table 4.3: Top 10 Designated Market Areas of Visitor Origins

Roanoke-Lynchburg	15%
Richmond-Petersburg	13%
Washington, DC	12%
Norfolk-Portsmouth-Newport News	4%
Atlanta	4%
Charlottesville	3%
New York	3%
Harrisburg-Lancaster-Lebanon-York	3%
Charlotte	3%
Baltimore	3%
All Other Areas	37%

Source: VTC

4.1.2. Traveling Party Characteristics

The VTC survey indicates that more than half (51%) of the visitors to the FOG region in 2011 came to the region to visit friends and relatives. Leisure-only visitors accounted for 85% of all the survey respondents, and business visitors accounted for 15% of the respondents. This large percentage of leisure-only visitors bodes well for regional agritourism operators, as leisure travelers are more likely to visit farms and other agritourism establishments. The high percentage of visitors that come to see family/relatives can also be seen as an advantage for regional agritourism, as many agritourism establishments do not have a large marketing budget. Word-of-mouth usually is the best way to reach out to their customers, and local residents hosting visitors can be a great marketing tool for attracting more visitors.

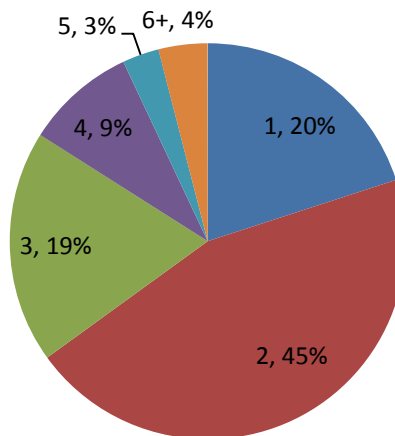
Table 4.4: Primary Purpose of Trip

Visit friends/relatives	51%
Outdoor recreation	2%
Entertainment/Sightseeing	13%
Other pleasure/personal	15%
Personal business	5%
Business - General	12%
Business - Convention/tradeshow	1%
Business - Conference/seminar	2%
Other	1%

Source: VTC

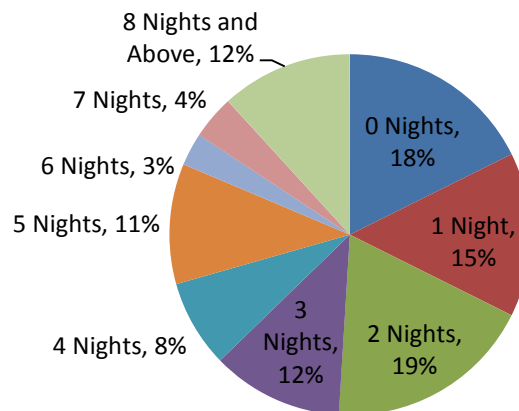
The VTC survey implies that the size of the traveling party to the FOG region tends to be small. In 2011, 45% of visitors were in a traveling party of two people, while 20% of visitors were traveling alone. Overall, the mean average traveling party consisted of 2.9 people. Large traveling party size (those with four or more people) only accounted for about 16% of the total traveling parties to the FOG region.



Figure 4.4: Size of Traveling Party

Source:VTC

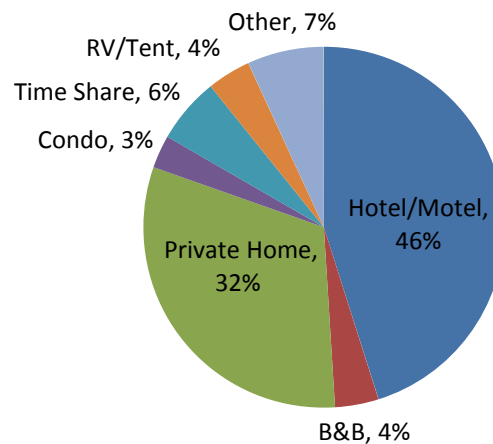
The VTC survey indicated that visitors to the FOG region spent an average of 3.6 nights on their trips.¹² Day trippers made up 18% of the survey respondents, while 15% spent one night, 19% stayed two nights, and 12% spent three nights on their trips (Figure 4.5). No data are available regarding the time they spent in the FOG region.

Figure 4.5: Number of Nights Spent on Trip

Source:VTC

For those visitors who were not day trippers, 46% of the overnight visitors stayed at a hotel or motel. The percentage of visitors staying at private homes with friends or relatives was 32%. Considering that the majority of visitors come to the region primarily to visit friends and relatives, it is not surprising that close to one third of overnight visitors stayed in private homes. There are also a small percentage of visitors who stayed in bed & breakfasts (B&B), condos, time shares, and RV/tents.

¹² The VTC survey did not provide information on the number of nights visitors spent in the FOG region.

Figure 4.6: Types of Lodging Used During Overnight Stays

Source: VTC

4.1.3. Activities and Spending

Visitor activities and spending are important factors in determining the future growth of the agritourism industry in the FOG region. If more visitors in the region are engaged in outdoor or nature-related activities, they can be tapped as potential customers for the regional agritourism industry.

The VTC survey classified all visitor activities into seven broad categories shown in Table 4.5. For visitors to the FOG region, the number one activity is associated with arts & culture. This includes visiting art galleries, museums, historic sites, and going to theaters and concerts; 50% of survey respondents who visited the FOG region reported that they participated in such activities. Entertainment/amusement and family activities are the second most popular events. Entertainment/amusement includes activities such as fine dining, shopping, casino gaming, visiting theme parks, and wine tasting and tours. Family activities include visiting friends and families, and attending family or high school/college reunions; 47% of visitors participated in those two activities. Nature and outdoor activities are also popular, with 27% of FOG visitors participating in activities such as going to national or state parks, bird watching, wildlife viewing, camping, and joining natural and eco-tours. A relatively small percentage of visitors to the FOG region are engaged in sports and recreation or adventure sports activities, including skydiving, hiking, mountain climbing, skiing, biking, and fishing.

Table 4.5: Popular FOG Visitor Activities in Virginia

Arts & Culture	50%
Adventure Sports	7%
Sports & Recreation	8%
Nature/Outdoor Activities	27%
Entertainment/Amusement	47%
Family Activities	47%
Sightseeing	31%

Note: The percentages add up to more than 100% because visitors are engaged in multiple activities

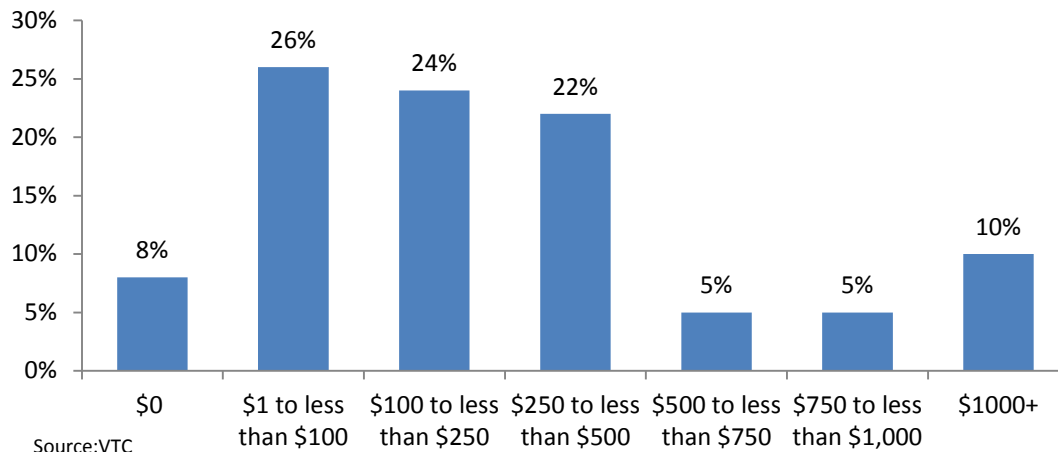
Source: VTC

Unfortunately, the VTC survey did not provide a separate activity category for agritourism. Instead, agritourism - related activities are spread over various VTC categories. For example, wine tasting and wine tours, and dining at

locally-sourced restaurants are classified as entertainment/amusement. Farm-based fishing and horseback riding belong to the sports and recreation category. Some activities within the outdoor category, such as hiking, can also be related to agritourism. With the increasing popularity of agritourism, VTC would benefit to add agritourism as an activity category in its annual survey in the future.

Visitors to the FOG region are estimated to have spent an average of \$359 during their trip in 2011.¹³ The amount they spent in the FOG region is smaller because this region may be just one segment of their total trip. During their entire trip, 58% of the survey respondents spent less than \$250, including 8% that spent no money. On the other hand, 10% of visitors spent over \$1,000 during their trips in 2011.

Figure 4.7: Travel Party Spending per Trip



The VTC survey showed that transportation (including gasoline) was the largest spending item of travel expenses, accounting for 34% of total spending. Visitors to the FOG region also spent one third of their money on food, including purchasing food at stores and eating out in restaurants. Lodging only accounted for 11% of total spending, which is due to a high percentage of visitors staying with family and friends in private homes.

Table 4.6: Spending Patterns of Visitors

Transportation (including gasoline)	34%
Lodging	11%
Food (grocery and dining out)	33%
Shopping	10%
Entertainment	11%
Other	1%

Source: VTC

¹³ This is the money spent during the whole trip, not just those dollars spent in the FOG region.

4.1.4. Trip Planning and Booking

Information on trip planning and booking is important for agritourism in the FOG region, as it can help frame the marketing strategy for the industry. For example, if an increasing number of visitors utilize online resources or social networks such as Facebook and Twitter to help plan their trips, the industry should increase its exposure on those marketing channels.

Despite increasing popularity of planning and booking trips using online sources, visitors to the FOG region still rely heavily on offline sources to plan their trips. The VTC survey showed that 71% of survey responders reported using offline sources for trip planning, compared with 48% of responders who used online sources. The survey also showed that 33% of responders made no advanced planning for their trip. Among the offline sources, own experience and friends/relatives were the primary sources of information. That is not surprising since visitors to the FOG region had the primary purpose of visiting friends/relatives. As a result, those visitors also rely on their friends/relatives for recommendations. Many of those visitors may be familiar with the area; as a result, they made no plans for the trip or relied on their own experiences.

Table 4.7: Trip Planning Sources for Virginia Visitors

Offline Sources	
Own experience	28%
Friends/relatives	20%
Destination printed material	6%
Travel book	5%
All Others	12%
Online Sources	
Destination website	13%
Travel provider website (airline, hotel)	11%
iPhone	5%
Online full service travel website (Expedia, Travelocity, etc.)	4%
Facebook	4%
TripAdvisor	3%
Other Online Sources	8%
No plans were made for this destination	33%
Source: VTC	

In terms of trip booking, more visitors used online sources as opposed to offline resources. Travel provider websites were the most popular; 24% of survey responders used these methods to book their trips. For offline methods, 11% of survey responders said they booked their trips in person or by phone. There was a large percentage (53%) of survey responders who reported that no bookings were made for their trip. Presumably, those were the day trippers, as well as visitors who stayed in private homes.

Table 4.8: Trip Booking Methods Used for Virginia Visitors

Offline Methods	
Directly with destination or attraction - in person or by phone	11%
Directly with travel provider (airline, hotel, rental car, cruise, etc.) either in person or by phone	5%
Other Offline Methods	3%
Online Methods	
Travel provider website (airline, hotel, rental car, cruise, tour)	8%
Online full service travel website (Expedia, Travelocity, etc.)	6%
Destination website (official site of state, city, or attraction)	5%
Other Online Method	5%
No bookings were made for this destination	53%

Source: VTC

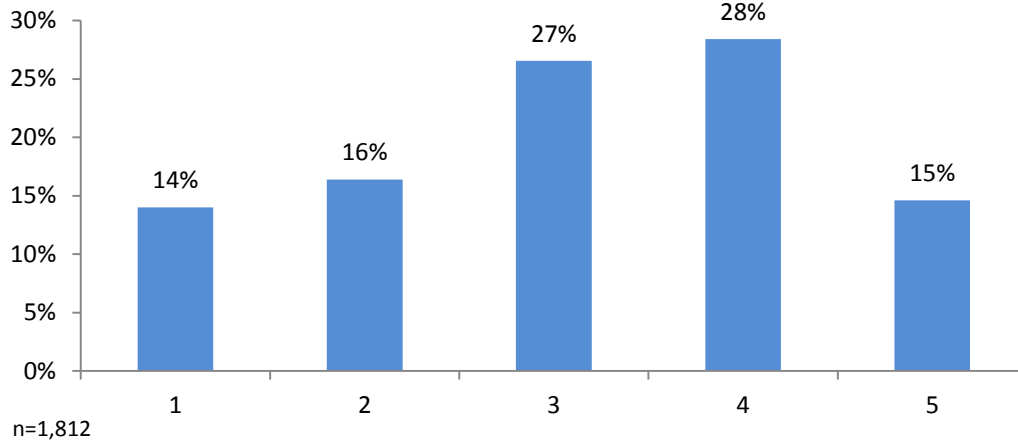
4.2. Interests in Agritourism from Prospective Visitors

In spring 2012, Chmura Economics & Analytics conducted a Visitor Attitudinal Survey for the Virginia Tourism Corporation (VTC). This study surveyed 1,812 potential visitors in the following nine designated market areas (DMA): Washington D.C., Knoxville, Raleigh, Charlotte, Philadelphia, Baltimore, New York City, Ohio, and Virginia. The survey asked a wide range of questions regarding the interests of potential visitors to Virginia, with some questions relating to agritourism. In this survey, agritourism was grouped together with ecotourism—activities related to nature and the environment, including bird watching, camping, and other outdoor activities such as bike and trail riding. Since survey results combined agri/eco-tourism, caution is needed when interpreting the results from this survey.¹⁴

Overall, residents living in those nine DMAs, who are potential visitors to Virginia, showed great interest in agri/eco-tourism (Figure 4.8). The survey showed that 15% of responders were very interested, 28% were interested, 27% were neutral, and 30% showed limited or no interest regarding agri/eco-tourism. Since the VTC survey grouped agri/eco-tourism together, the percentage of people interested in agritourism may be smaller than figures reported in Figure 4.8.

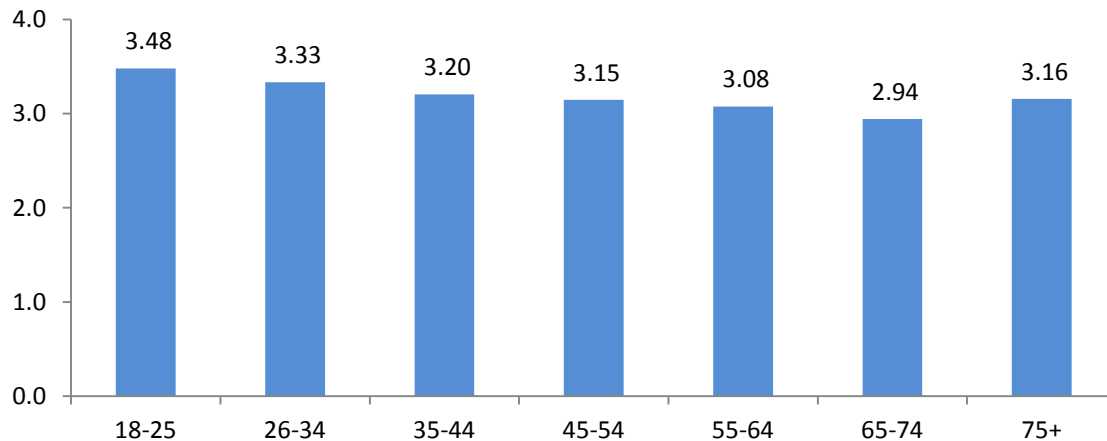
¹⁴ Appendix 2 lists a complete write-up of the VTC Attitudinal Survey excerpts.

Figure 4.8: Interest in Agri/Eco-Tourism
5="Very interested" and 1="Not at all interested"



In terms of age differences in the interests to agri/eco-tourism, younger age groups have higher interests in agri/eco-tourism. This interest declined steadily, from an average score of 3.48 for respondents between the ages of 18 and 25, to 2.94 for those between the ages of 65 and 74. However, interest picked up again for those older than 75 years of age. In terms of gender differences, women were more likely to be "very interested" in agri/eco-tourism than men.

Figure 4.9: Interest in Agri/Eco-Tourism by Age
5="Very interested" and 1="Not at all interested"



There are limited differences in the interests in agri/eco-tourism for residents from different market areas. The interest score ranges from 3.28 for Washington D.C. to 2.97 for Charlotte. Those scores did not deviate significantly from the overall average score of 3.13. The implication is that there is no DMA that shows strong interests in agri/eco-tourism. Whether to promote to a particular market area will depend on other factors such as distance, travel costs, and marketing costs. For agritourism in the FOG region, marketing in nearby areas such as Knoxville or Raleigh can generate higher return on marketing dollars than in expensive media markets such as Washington or New York City, as they all report similar levels of interest in agri/eco-tourism.

Figure 4.10: Interest in Agri/Eco-Tourism by Market Area
 5="Very interested" and 1="Not at all interested"

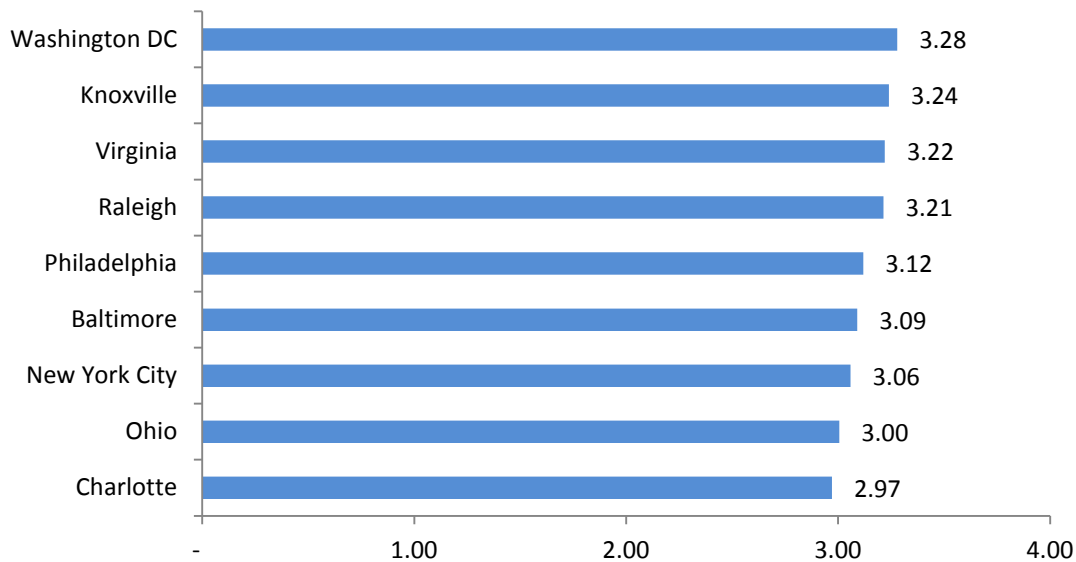
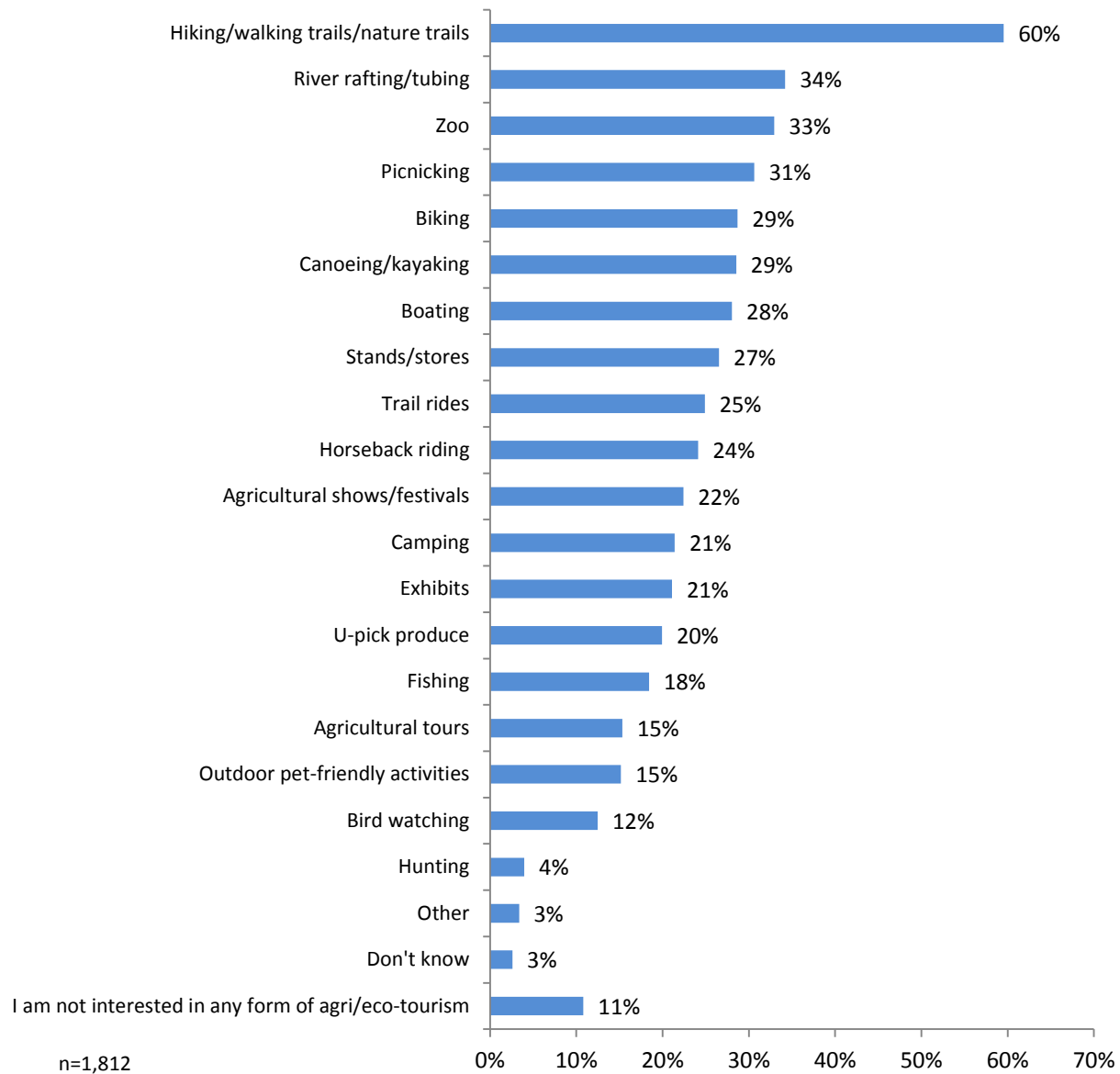


Figure 4.11 presents the interest of survey responders in particular activities that are associated with agri/eco-tourism. The strongest interests are in hiking/walking trails/nature trails, where 60% of survey responders showed interest. That is followed by river rafting/tubing and visiting zoos. These activities are not associated with agritourism as defined in this study. For activities that fit the agritourism definition, 27% of responders were interested in stands/stores, 22% were interested in agricultural shows, 20% were interested in U-pick produce, and 15% were interested in agricultural tours.¹⁵

¹⁵ This survey did not include questions on local-sourced restaurants, farmers markets, and on-farm stays.

Figure 4.11: Interest in Specific Types of Agri/Eco-Tourism

More detailed data regarding specific agritourism activities showed that interest in stands/stores was higher among women than men. Interest in the same activities was higher among those making less than \$75,000 than those making \$75,000 or more.

Similar patterns occur for other activities such as agricultural shows, U-pick produce, and agricultural tours. The survey found that interests in all those activities were higher among women than men, and interests were higher for lower-income visitors than higher-income visitors.

5. Economic Impact of Agritourism

5.1. Estimating the Size of Agritourism in the Region

This section estimates the size and economic impact of agritourism in the Fields of Gold region. As stated in Section 2, agritourism in the FOG region includes the following categories of activities:

1. **Ag-Venues:** Farm events and activities; facilities for meetings or weddings; activities such as hay rides and corn mazes
2. **Experience the Farm:** A farm that offers on-the-farm experience, such as tours, a petting zoo, or horseback riding
3. **Farm Stand:** A site, typically on-farm, that primarily sells goods produced on the farm
4. **Farmer's Market:** A market for vendors of local produce and value-added goods
5. **Local Foods Restaurant:** Restaurants with an emphasis on serving locally produced dishes
6. **Local Grocery/Store:** Retail locations that specialize in or sell locally raised/grown products
7. **On-Farm Lodging:** Cottages, Bed & Breakfasts, and rentals located in an agricultural setting
8. **Pick-Your-Own:** Farms where individuals can pick their own fruit, berries, vegetables, corn, pumpkins, and Christmas trees
9. **Trout Farm/Aquaculture:** Fish hatcheries and farms which sell to the public; fee fishing
10. **Winery/Brewery:** Local producers of alcoholic beverages, primarily using locally grown ingredients

This definition is broader than the agritourism definition in other studies, which typically include only farm-related activities. The main difference is that the FOG definition also includes business establishments such as local food restaurants and local groceries or stores, which were not included in the agritourism definition in other national studies.¹⁶

To estimate the size of the agritourism industry in the FOG region, the first step is to identify all businesses engaged in agritourism. Several data sources are combined to provide an inventory of agritourism establishments in the FOG region. For farm-based agritourism businesses, two lists of farms are combined. The first is a list of farms that responded to the survey conducted by the Central Shenandoah Planning District Commission (CSPDC). As of May 2012, this survey identified 102 businesses engaged in agritourism. The second is the list compiled by Virginia Department of Agriculture and Consumer Services (VDACS), which includes about 60 farms that are engaged in agritourism in the FOG, which were not captured by the CSPDC survey.¹⁷

The challenge is to identify local foods restaurants and local groceries or stores. Business establishment lists such as the Quarterly Census of Employments and Wages (QCEW) or the National Establishment Time Series (NETS) include a large number of chain restaurants and retail store, and these do not fit into the category of local foods restaurant or local grocery/store. Surveying all retail establishments and restaurants in the region is too cost-prohibitive. For that reason, Chmura asked tourism and economic development officials in each locality to compile a list of, to the best of their knowledge, locally-sourced restaurants and retail establishments. Such information was

¹⁶ For example, the USDA study only counts tourism sales occurring at farms. The Virginia General Assembly definition also only includes activities at farms.

¹⁷ Source: <http://www.vdacs.virginia.gov/news/buylocal.shtml>.

provided by the cities of Harrisonburg, Staunton, and Lexington, and counties of Highland, Rockingham, and Rockbridge.

The above approach to compiling a list of agritourism establishments in the FOG region is not perfect. It is likely that some agritourism businesses are not included in the estimates. Consequently, the results presented in this report should be considered as conservative. Additionally, this study is the first step of an ongoing process to promote agritourism in the region. The survey administered by CSPDC is ongoing, and the study can be updated as more businesses respond to the survey.

After the list of agritourism businesses is identified, the next step is to estimate their revenues from agritourism activities. The CSPDC survey asked responders to report their agritourism revenues and visitor numbers. But less than 20% of responders reported such data. For establishments that did not report their agritourism sales and visitor numbers, Chmura assumes that their operations are similar to other regional agritourism establishments of similar businesses.

For two types of businesses—local foods restaurant and local grocery/store, none of the survey responders reported their sales related to agritourism. As a result, Chmura used data sources outside the survey to estimate their sales. First, Chmura calculated the average employment for all restaurants and specialty food retailers in the region in 2011 from the Quarterly Census of Employments and Wages. This shows average employment is 18 for regional restaurants, and 6 for specialty food stores. Using this information, Chmura is able to estimate the total employment in local foods restaurants and local grocery/stores. Secondly, Chmura uses IMPLAN Pro data, which provides average sales per employee in 2010. Adjusting for inflation, it is assumed that average annual sales per employee are \$50,620 for area restaurants and \$49,191 for specialty food retailers. Through this method, Chmura is able to estimate the gross sales of both local foods restaurant and local grocery/store categories.

Not all customers of local foods restaurants or local groceries/stores are classified as agritourists. An out-of-town visitor who happens to dine at a local foods restaurant should not be counted as an agritourist, while a local resident who seeks out food with locally-sourced ingredients will be classified as an agritourist. To differentiate between those customers, the best method is to estimate the percentage of customers who seek out local foods restaurants or stores through a customer intercept survey at those businesses. However, that is outside the scope of the study. Without a specific customer survey, Chmura utilized a study conducted in a different location as a proxy. The Zagat Survey of customers of fine dining restaurants is the best available data source. It estimates that in 2010, 31% of fine-dining customers were seeking out local food restaurants.¹⁸

Table 5.1 estimates the size of agritourism in the Fields of Gold region. In 2011, it is estimated that there are total of 226 businesses in the region engaged in agritourism. The largest number of agritourism businesses is in the category of farm stand, with 81 establishments. Farm stand businesses require minimal initial investment to set up, and this creates an ease of involvement for farmers in such agritourism activities. The farm stand category is followed by local grocery/stores, with 38 establishments, and local foods restaurant, with 37 establishments.

¹⁸ Source: <http://terracoer.wordpress.com/2010/11/08/locavore-news-%E2%80%94-world-35/>

Table 5.1: Estimated Agritourism by Category (2011)

Category	Number of Establishment	Agritourism Sales	Estimated Annual Visitors	Estimated Employment
Ag-Venues	8	\$780,000	46,000	16
Experience the Farm	10	\$1,528,000	39,400	78
Farm Stand	81	\$2,545,317	427,743	208
Farmers' Market	13	\$713,800	7,800	13
Local Foods Restaurant	37	\$10,733,386	429,335	208
Local Grocery/Store	38	\$3,286,217	164,311	66
On-Farm Lodging	14	\$656,500	6,175	39
Pick-Your-Own	9	\$488,400	53,460	18
Trout Farm/Aquaculture	6	\$150,000	60,000	26
Winery/Brewery	10	\$1,500,000	35,000	32
Total	226	\$22,381,620	1,269,224	704

Source: CSPDC and Chmura

Total sales of the agritourism industry in the FOG region are estimated to have been \$22.4 million in 2011. Agritourism sales are dominated by sales from local foods restaurants, accounting for almost half of the total agritourism sales, with estimated sales reaching \$10.7 million in 2011. Local grocery/store, farm stand, and experience the farm had estimated revenues of \$3.3 million, \$2.5 million, and \$1.5 million, respectively in 2011. The region attracted 1.3 million agritourism customers in 2011, and a large number of these were customers to local foods restaurants.

On average, each establishment averaged \$99,034 total agritourism revenue in 2011. Average sales vary greatly among different types of agritourism businesses. For example, average agritourism revenues for both the categories of local foods restaurant and local grocery/store were estimated to be over \$290,092 and \$86,479, respectively, in 2011. Average sales per winery/brewery were \$150,000 in 2011. Excluding these three business categories, agritourism revenue for all other activities averaged \$48,667 per establishment in 2011.

For local foods restaurants and local groceries/stores, agritourism sales accounted for 31% of their total sales. For other agritourism activities, such as farm stand, on-farm lodging, and experience the farm, agritourism revenues account for a smaller portion of the total farm revenues. The survey conducted by CSPDC did not ask questions about the farm revenue outside the agritourism activities, but other studies provided an indication of the importance of agritourism. In 2007 the United States Department of Agriculture (USDA) Farm Census indicated that for farms engaging in agritourism activities in the FOG region, 8% of their total incomes are derived from agritourism activities. This 2007 estimate may be conservative now as agritourism has gained greater popularity in the past five years.

It is estimated that total employment in the agritourism industry totaled 704 in the region in 2011, implying that each establishment had 3.1 employees.¹⁹ Local food restaurants have, on average, the largest agritourism employment, averaging 5.6 jobs per restaurant.

¹⁹ This number represents year-round employment. Seasonal employment is converted into year-round employment. For example, one seasonal job that works half of the year is counted as 0.5 year-round employment.

Over time, localities in the FOG region have developed strengths within certain agritourism categories.²⁰ Cities in the region, such as Staunton and Harrisonburg, developed strengths in both local foods restaurants and local groceries/stores. The majority of their agritourism sales come from those establishments. Counties such as Augusta, Rockingham, and Rockbridge offer a wide variety of agritourism opportunities, especially farm-related activities. Harrisonburg, Rockingham, Staunton, Lexington, and Augusta all had agritourism revenues over two million dollars in 2011.

Table 5.2: Estimated Agritourism by Locality

FOG Locality	Number of Establishment	Agritourism Sales	Estimated Visitors	Estimated Employment
Augusta County	23	\$2,218,949	124,095	68
Bath County	12	\$1,064,333	44,419	46
Harrisonburg City	23	\$4,082,770	177,811	87
Highland County	24	\$1,940,784	110,765	68
Lexington City	15	\$2,464,674	117,294	57
Rockbridge County	28	\$1,568,636	122,335	81
Rockingham County	48	\$4,168,579	290,373	132
Shenandoah County	26	\$1,340,587	102,722	83
Staunton City	23	\$3,423,642	158,341	73
Waynesboro City	4	\$108,667	21,070	10
Total	226	\$22,381,620	1,269,224	704

Source: CSPDC and Chmura

5.2. Ripple Economic Impact of Agritourism in the Region

Chmura input direct sales and employment of the FOG region's agritourism industry into the IMPLAN Pro model to estimate the total economic impact of the industry in the region. Different types of businesses (restaurants, on-farm lodging, pick-your-own, winery/brewery) have different linkages to the local economy. As a result, Chmura first mapped those activities into different IMPLAN sectors before aggregating them to arrive at the total economic impact of the agritourism industry in the FOG region.

The total economic impact (direct, indirect, and induced impacts) of agritourism in the FOG region is estimated to have been \$34.8 million in 2011, which could support 811 jobs (Table 5.3). Of this impact, direct agritourism sales of all businesses in the region is estimated to have been \$22.4 million in 2011, supporting 704 jobs in the region's agritourism industry such as farms, local foods restaurants, and local grocery/stores. The indirect impact is estimated to have been \$7.2 million that supported 60 jobs in the region in 2011. This indirect impact benefits other businesses within the region such as suppliers that support agritourism establishments. The induced impact is estimated to have been \$5.3 million that supported 48 jobs in the region in 2011.

²⁰ City of Buena Vista has no businesses responded to the CSPDC survey nor did it provide a list of local foods restaurants or local grocery stores.

Table 5.3: Economic Impact of Agritourism in the FOG Region (2011)

	Direct	Indirect	Induced	Total
Spending (\$Million)	\$22.4	\$7.2	\$5.3	\$34.8
Employment	704	60	48	811

Source: Chmura Economics & Analytics and IMPLAN Pro 2010

Many agritourism businesses, such as local foods restaurants, emphasize the use of locally produced commodities, which indicates the agritourism industry will have large benefits to the local economy. The above estimates of the indirect impacts have considered this. For businesses reporting a high percentage of local purchases than implied by the IMPLAN pro model, Chmura uses the higher percentage from the survey in estimating the indirect impact. For example, the IMPLAN Pro model indicates that an average restaurant has an indirect multiplier of 0.20, meaning each dollar spent in an average restaurant can generate an additional 20 cents in sales for other local businesses. For this study, to be considered a local foods restaurant, the restaurant must focus on purchasing local food supplies. Many restaurants reported that over 80% of their menu items are locally sourced. If a restaurant purchases 80% of its supply locally, that implies an indirect multiplier of 0.39, which almost doubles the regional average indirect multiplier from the IMPLAN Pro model. As a result, compared to a similarly-sized average restaurant, local foods restaurant can double the benefits it generates to local farmers and suppliers.

5.3. Fiscal Impact of Agritourism

The agritourism industry can also generate sizable tax revenue for the local and state governments. Chmura estimated the following three major taxes for the state government: sales, individual, and corporate income taxes. Estimates for local taxes include sales; meal; lodging; and business, professional, and occupational license (BPOL) taxes. In order to be conservative, only tax revenue from the direct impact is estimated.²¹ In estimating local tax revenues, Chmura utilizes weighted average tax rates to estimate tax revenues such as meals, lodging and BPOL taxes, with the weight being the total agritourism sales of each locality.

To calculate sales tax revenue for state and local governments, Chmura applied the sales tax rates for retail sales within total agritourism sales (including stores, farmer's markets, food stands, food services, and lodging sales). Typically, Virginia has a 5% sales tax rate, with 1% going to local governments and 4% going to state government. However, for grocery items, the state sales tax rate is 2.5% with 1% going to local government and 1.5% to state government. When applying the above rates to different agritourism activities, the regional agritourism industry can generate \$216,991 in sales tax for the local governments in the FOG region, while the state government is expected to have received \$662,732 in sales tax revenue in 2011.

²¹ This approach is recommended by Burchell and Listokin in *The Fiscal Impact Handbook*.

Table 5.4: Tax Revenue from Agritourism (2011)

	Local Governments	State Government
Local Sales Tax	\$216,991	\$662,732
Meal Tax	\$415,560	
Lodging Tax	\$25,800	
Admission Tax	\$6,225	
BPOL	\$26,637	
Income Tax-Individual		\$360,738
Income Tax-Corporate		\$173,734
Total	\$691,213	\$1,197,204

Source: Chmura Economics & Analytics

The average meal tax rate is 4.0% for the FOG region. When applying this rate to estimated revenues in local food restaurants, the total meal tax revenue in 2011 from agritourism for local governments in the FOG region is estimated to be \$415,560, the largest source of local revenues. The average lodging tax rate for the FOG region is 4.0%. When applying this rate to estimated revenues of on-farm lodging, the total lodging tax revenue for local governments in the FOG region is estimated to be \$25,800 in 2011. Similarly, admission tax is applied to ticket sales at ag-venues, which results in \$6,225 in annual tax revenues. BPOL taxes were estimated for 2011 in a similar fashion. The BPOL tax revenue from agritourism spending is estimated to have been \$26,637 for local governments in the FOG region.

The state government also benefited from individual income taxes as a result of jobs created by the agritourism industry. Individual income tax revenue is estimated to have been \$360,738. The profits of the agritourism establishments are subject to 6% state corporate income tax, which is estimated to have been \$173,734 in 2011.

In summary, 2011 agritourism industry contributions are estimated to be \$691,213 in tax revenues to local governments in the FOG region and \$1.2 million to the state government.

5.4. Key Indicators of Agritourism

From the analysis of the economic impact of agritourism in the FOG region, Chmura identified five key indicators to measure the economic impact of agritourism. The following indicators can also be used to compare with peer regions chosen by FOG team:

- Number of agritourism establishments
- Number of jobs employed in the agritourism industry
- Average annual number of visitors
- Annual agritourism sales
- Annual business sales of agribusiness establishments

Other important indicators of agritourism, such as average size of establishment, average spending per visitor, as well as the importance of agritourism to overall businesses, can be computed from the above five key indicators.

In terms of the data collection system, the existing FOG survey should be continued to collect up-to-date information on agritourism establishments. In March 2012, Chmura recommended adding a set of questions to the original FOG survey to capture the economic impact of each agritourism operator. Those questions included



agritourism sales, visitor numbers, and employment. Chmura suggests that a couple more questions should be added to better capture the impact of agritourism in the FOG region, including overall business sales. Appendix 4 lists survey questions added by Chmura.

In future years, to update the economic impact, the first step is for the FOG team to analyze the survey data and identify new agritourism establishments since this study. The second step is to estimate the incremental employment and agritourism sales by each sector. Chmura provided the FOG team with an Excel file with economic and employment multipliers, which can be used to compute the economic impact of those new agritourism establishments.



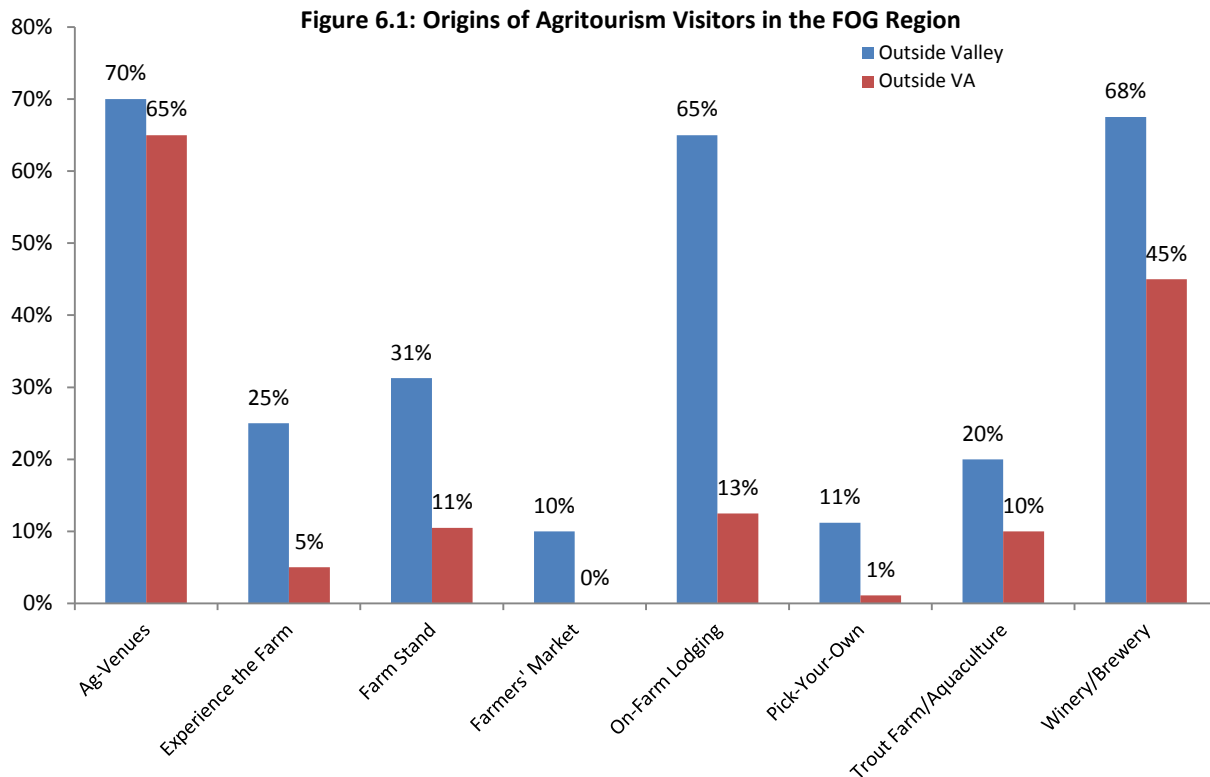
6. Assessment of Market Growth Potential

Agritourism has become more popular in recent years, fueled by increased interests in nature and outdoor activities, and the movement to consume locally produced, healthy, and organic food. In a survey conducted by the Virginia Tourism Corporation, 43% of potential visitors to Virginia indicated they are interested or very interested in agri/eco-tourism, with 15% of them being very interested.²² The USDA Farm Census indicated that income from agritourism and farm-related recreational activities experienced phenomenal growth. From 2002 to 2007, the income from agritourism and farm-related recreation activities increased from \$2.7 million to \$12.9 million in Virginia—an average 37% growth per year.²³ As a comparison, overall farm income in Virginia grew about 7% per year. If this trend continues, agritourism in Virginia and the FOG region can expect significant growth in the near future.

To understand the future market growth potential of agritourism in the FOG region, it is necessary to determine visitor origin. As Figure 5.1 shows, the CSPDC survey showed that some agritourism businesses, such as farmer's markets in the FOG region, drew 90% of their visitors from within the Shenandoah Valley, and had almost no out-of-state visitors during the survey period. Though no survey data were available for the categories of local grocery/store and local foods restaurants, they presumably also cater, to a large degree, to the residents of the region. As a result, the future growth of those agritourism establishments will depend largely on the population and income growth of the region. On the other hand, other agritourism activities, such as on-farm lodging, winery and brewery, and ag-venues, may attract more out-of-area visitors. The CSPDC survey indicated that more than 60% of the customers of ag-venues, on-farm lodging establishments, and wineries/breweries came from outside the Shenandoah Valley, and 40% of visitors to wineries/breweries, and 65% of visitors to ag-venues came from outside Virginia. Other categories, such as pick-your-own, experience the farm, and farm stand, have a mix of local and out-of-region visitors who experience these activities.

²² Source: The VTC Attitudinal Study, conducted by Chmura Economics & Analytics for Virginia Tourism Corporation.

²³ The USDA definition of agritourism and recreational service is extremely limited. It does not include local foods restaurants, local grocery stores, farmer's markets, and ag-venues. As a result, this figure is low compared to the Chmura estimate of 2011.



Note: None of local foods restaurants or local grocery/store categories reported visitor origination information
 Source: CSPDC Survey

To estimate the future market potentials of agritourism in the Fields of Gold Region, Chmura first segregated the visitors into local visitors (those from Shenandoah Valley) and out-of-region visitors for each activity. For local visitors, Chmura assumes that the market, in terms of visitors, will expand with the population growth plus the per-capita income growth. The reason that per-capita income growth can also affect the number of visitors from a particular area is based on the assumption that as households become more affluent, they may also become more interested in locally-produced, organic products for their families. As a result, as income increases, some residents who previously did not engage in agritourism activities may start purchasing from farmer's markets, dining at local foods restaurants, or visiting wineries. The historic data (as shown in Section 3) indicates that the population in the FOG region expanded 1.1% per year while per-capita income has expanded 3.1% per year from 2000 to 2010. Chmura assumes that such a trend will continue in the future.

For visitors living outside the Shenandoah Valley, the most promising market potential lies in attracting more exiting tourists to agritourism establishments, who already visit the FOG region. VTC estimates that in 2010, total tourism spending in the FOG region reached \$950 million.²⁴ Agritourism was only a small part of the total tourism industry in the region. Due to the relatively small size of agritourism and limited resources of the businesses involved, the agritourism industry in the FOG region may have little capacity to conduct large scale marketing campaigns in out-

²⁴ Source: VTC website, available at: <http://virginiascan.yesvirginia.org/localspending/localspending.aspx>. VTC defines tourists as those traveling more than 50 miles. As a result, this number cannot be directly compared with the size of agritourism estimated by Chmura.

of-region metropolitan areas (such as Washington D.C. or Richmond) to attract new customers. The marketing effort should be focused more locally on those visitors already in the region, which can provide sufficient future growth opportunities for the regional agritourism industry. Based on data from the VTC, Chmura estimates that there were about 6.7 million visitors (traveling more than 50 miles) to the FOG region in 2010. The VTC Attitudinal Survey indicated that 43% of potential visitors to Virginia expressed interests or strong interests in agri/eco-tourism, with 15% of them being very interested. If 15% of the visitors that are very interested in agri/eco-tourism can be converted to actual visitors, the potential out-of-region agritourism visitors to the region can reach 1.0 million; this is more than triple the existing out-of-region agritourism visitors, which is estimated to be 325,915 in 2011. If visitors who are interested in agritourism are included, the total out-of-region visitors can reach 2.9 million per year. This is a significant market potential for the regional agritourism industry to capture.

Chmura takes a conservative approach in assessing the future growth of the agritourism market in the FOG region. Chmura assumes that only those very interested in agritourism are readily attracted, that the market potential cannot be realized overnight, and that it may take years to reach that potential. If it takes 10 years to reach that potential, the annual average growth of out-of-region agritourism visitors can reach 12.0% per year—much faster than growth in local agritourism visitors.

Combining agritourism visitors from both local sources and those from outside the region, Chmura estimates that the number of agritourism visitors to the FOG region can grow 6.2% per year in the next 10 years. In terms of total agritourism sales, it can expand by an annual rate of 9.3% per year, as average spending per visitor can also increase with income growth.

The above estimate is conservative, as it only considers those visitors who expressed strong interest in agritourism. In addition, it allows a relatively long time for the market potential to realize. If all the visitors interested in agritourism are included, the number of regional agritourism visitors can grow 9.4% per year, with total sales growing 12.5% per year. Regardless, there is significant potential in developing agritourism in the FOG region.



7. Case Studies

In May 2012, Chmura conducted site visits to five agritourism operators in the FOG region. The purpose of the visits was to identify factors that contributed to the successes of the businesses and to gather insight that would assist the efforts of local and community leaders in promoting agritourism in the region.

Based on these case studies, at least three factors are needed for success. First, the agritourism site must have an attraction, whether it is aesthetic beauty, a product, or a unique farming practice to draw visitors. Second, the agritourism site needs a champion. An individual who promotes its benefits needs to interface with the tourists. Third, marketing is needed to attract potential customers. The internet has helped in this regard, but many of the sites visited rely heavily on word-of-mouth referrals. Some case study participants cited marketing as a significant issue. This suggests that marketing is an area where an organization such as Fields of Gold can provide assistance, by providing grants or funding, training, and professional services in marketing, and graphic and web design to agritourism operators.

7.1. Polyface

- **Year Agritourism Operations Began:** Mid-1980s
- **Estimated Annual Visitors:** 12,000 (approximately 1,650 additional visitors every third year when Polyface hosts Polyface Field Day)
- **Current Employment:** Annual average of 20, but more in the summer with the addition of interns and substantially fewer in the winter
- **Key products and services:** farm products including beef, pork, pastured poultry meat and eggs, forage-based rabbits, honey, and a limited selection of produce; and tours

Polyface is an example of a farmer using unique practices for a large-scale operation to build an agritourism operation that supports his sales and brings other farmers and visitors to the region.

Located in Augusta County, Polyface is a family-owned 550-acre “pasture-based, beyond organic, local-market farm” with a diverse customer base united by their concern for the quality of their food. Joel and Teresa Salatin along with Joel’s mother Lucille own Polyface; Joel and Teresa’s son Daniel and their daughter-in-law Sheri are also employed on the farm. The farm was purchased by Joel’s parents in 1961 and Joel returned to Polyface full-time in 1982. Joel’s grandfather was a follower of J.I. Rodale, the founder of regenerative organic gardening; this influenced Joel’s farm practices and he describes Polyface as “diversified, grass-based, beyond organic, direct marketing farm.” Polyface employs about 20 people on average throughout the year, but that number increases in the summer with the addition of interns and wanes substantially in the winter. Farm products produced at Polyface include beef, pork, pastured poultry meat and eggs, forage-based rabbits, honey, and a limited selection of produce. Polyface products can be purchased at their farm store, through buying clubs, and at a select group of specialty retailers. Polyface also offers farm tours, led by Joel or Daniel, to educate visitors on Polyface’s farming techniques and explain why its untraditional method of farming for large-scale operations is better for the environment, more profitable, and produces superior quality food. Joel’s books and speaking engagements, his participation in several food documentaries including *Food Inc.*, his farm’s prominent mention in Michael Pollan’s best-selling book *The Omnivore’s Dilemma* (2006), and articles in national media have put Polyface on the map as an unconventional grass-based, beyond organic farm.

Agritourism is an important component of Polyface farm’s operations. Joel estimates that at least 50% of the farm’s agritourism base is from more than 4 hours away. Polyface’s most popular tour, the Lunatic Tour, is offered eight months out of the year. Ten Lunatic Tours are scheduled for 2012 which can have up to 100 adults and 25 children



on them; these tours often sell out months in advance. Tickets are \$15 per adult and children are free. Tour customers range from urban foodies to “wanna-be farmers” to health conscious consumers seeking out a quality food source; other visitors are people who are interested in learning how farming techniques have an impact on the nutritional value of food. Polyface also has a field day every third year; in 2011, Polyface’s field day attracted 1,650 people from around the United States and even internationally. Polyface’s farm store is open Monday through Friday from 9-12 and 9-4 on Saturday. The farm store shuts down from Christmas until February and then it is only open on Saturdays until the beginning of March. Joel estimates that the farm store has 40 customers per day and the average customer spends \$100 per visit. Weather does not have a large impact on Polyface’s agritourism business, since Joel describes the agritourism customers as “die-hard.” The Salatin’s don’t have any specific plans to expand their agritourism operations.

For other large-scale farmers considering this method of farming, the learning curve and start-up costs to operating a farm like Polyface are fairly steep according to Joel. Polyface relies heavily on local suppliers and businesses. The farm supports one GMO-free (genetically modified organism) feed mill, and uses T&E Meats, an abattoir in Harrisonburg. In addition, Polyface requires a tremendous amount of machinery, tractor repair, and mechanic work which is supplied by local businesses.



Some of the drivers of Joel’s business’ and agritourism growth can be used by other farmers in the region to promote their farms: (1) offering a superior product in terms of taste, texture, and nutrition, (2) ability to tell a story about the farm operations, (3) the compelling beauty of a farm, as differentiated from industrial farms, and (4) the “local food tsunami.” Polyface clearly does things differently and provides a product—high-quality farm food—which is in

high demand as people become more educated on the importance of purchasing nutritionally superior food. Joel’s strong communication skills undoubtedly play a significant role in the success of Polyface’s agritourism operations.

Another important driver of Polyface’s continued revenue growth from tourists is its delivery system for its products. Specifically, people who live within four hours of Polyface can become a member of one of its metropolitan buying clubs. Members of these clubs can place online orders for Polyface farm products which are delivered to a centralized location in their area about every six weeks.

7.2. Posey Thisisit Llama Farm

- **Year Agritourism Operations Began:** 2000
- **Estimated Annual Visitors:** 650-900
- **Current Employment:** 2 part-time workers plus the owners and help from family and volunteers
- **Key products and services:** Tours of the farm, fiber classes, parties, special events such as Open Barn, wool and yarn, products made from llama and sheep wool

Agritourism at Posey Thisisit Llama Farm is driven by its owners' desire to educate people about llamas. About half of its visitors come from within an hour's drive and revenue consists of donations offered by visitors, fees for parties and classes, and sales of wool products harvested from llamas.

Located in Shenandoah County, Posey Thisisit Llama Farm is a 27-acre farm owned by Jim and Joyce Hall. The Halls, who purchased the farm to raise llamas, have 33 llamas including ten that are adopted or boarded there. Joyce and Jim started the business seventeen years ago. After watching a television program on female llama farmers, Joyce became interested in llama farming. Initially, the Halls bred and showed their llamas. Now, however, they primarily use the farm to host parties, give tours, and hold fiber classes where they teach participants how to create various crafts such as hats and bags with felted llama wool.



Educating visitors about llamas is a big part of any visit to Posey Thisisit Llama Farm. In addition, llama yarn—which is spun off-site from llama fiber—as well as wool products made with llama yarn are available for sale at the farm. Posey Thisisit Llama Farm also hosts an annual Open Barn in October where the Halls offer hayrides and tours of their barns and have an activities table for children in order to introduce the public to llamas and educate guests on what you can do with llamas. The Halls' daughter Jamee also demonstrates spinning and needle felting and wool and yarn and products made from the wool of their llamas and sheep are sold at this event. Thanksgiving Pie Day and a unique adopt-a-llama program also serve as marketing techniques to get more people to visit the farm. On Thanksgiving Day, the Halls welcome visitors to their farm to enjoy a piece of pie and get their "Thanksgiving llama kiss." Visitors can also make a small fiber project like a needle felted Christmas ornament for \$4 at Thanksgiving Pie Day. The adoption program at Posey Thisisit Llama Farm allows people who are interested in llamas but don't have a place to keep them or are unsure if they really want to own them the ability to have a trial period as a llama owner. The cost of the adoption, \$500 per year, is used to feed and care for the adopted llama. Participants in the adopt-a-llama program are able to visit their llama on the farm and also receive news on their llamas and even small gifts made from their llama's fiber. The llamas are also taken to a local winery and other events to introduce people to them. Posey Thisisit Llama Farm welcomes approximately 650 to 900 visitors each year.

The Halls learned how to operate a llama farm by attending seminars, spending time with llama trainers, participating in a Virginia Cooperative Extension program for women in agriculture, and getting advice from other farmers. The addition of a farm store to sell yarn products may be considered in the future. Posey Thisisit Llama Farm has a wide range of customers including senior citizens, school groups, mom and me clubs, boy and girl scout groups, and church groups. Visitors come because they feel safe and comfortable on the farm. People learn

about the farm through its website; local radio and newspaper coverage; cross marketing with North Mountain Vineyard, Shenandoah Vineyard, and local bed & breakfasts; networking; and word of mouth. After visiting, the customers tend to stay in touch with the Halls.

The keys to success of the farm have been identifying unique opportunities, listening to customers' demand, and partnering with other farmers and businesses in the area. Posey Thisisit Llama Farm offers visitors an unusual and personal experience; the farm is the only local llama farm that offers tours. Visiting the farm appeals to a wide range of individuals. The Hall's clear passion for llamas and sharing their animals and farm with visitors drives their success in turning a farm that used to breed llamas into an agritourism venue. Furthermore, the flexibility of their business plan has allowed them to respond to customers' suggestions and offer events such as Thanksgiving Pie Day and programs such as their adopt-a-llama program. In addition, the farm's interconnectedness with other local businesses including wineries and bed & breakfasts benefits Posey Thisisit Llama Farm, other local businesses, and the local economy.

7.3. Fort Lewis Lodge

- **Year Agritourism Operations Began:** 1988
- **Estimated Annual Visitors:** Approximately 5,000 people room nights
- **Current Employment:** 2 housekeepers, 3 employees in the kitchen, 2 part-time workers on the grounds, plus the owners
- **Key products and services:** Country inn (bed, breakfast & dinner), dinner by reservation, special events including weddings and family reunions



Agritourism came to Fort Lewis Lodge when its owners created a country inn to diversify its business.



Fort Lewis Lodge is located in Bath County on 3,200 acres owned by John and Caryl Cowden. The land has been in the Cowden family since 1959 and began as a cattle farm with row crops. Looking for another way to make income, the Cowdens believed the land was worth more for its natural aesthetic value and opened Fort Lewis Lodge in 1988. Fort Lewis Lodge employs two housekeepers, three kitchen workers, and two part-time groundskeepers in addition to the full-time schedule kept by the owners. As a country inn, they offer breakfast and dinner in addition to lodging. Dinner by reservation is also available to non-lodge guests. In addition, weddings, family reunions, and special events are held at Fort Lewis Lodge. Fort Lewis Lodge is a seasonal business and opens April 1st and stays open through the middle of November.

The Cowdens learned the business through mentors, personal experiences, and visiting a similar country inn in North Carolina. Neither has any formal hospitality training, but Caryl's background in accounting has been very helpful. In addition, they did receive some training from the associations they belong to including the Bed & Breakfast Association of Virginia, Select Registry, and the Professional Association of Innkeepers. In terms of expansion plans, there is nothing specific in the works, but the Cowdens are always exploring the option of adding new programs and events or possibly another cabin.

The lodge introduces its guests to natural activities, including fishing, swimming, hiking, and biking. The typical guest at Fort Lewis Lodge is someone who enjoys the outdoors and is looking for a non-commercial experience. It



is most popular with couples, but families as well as singles also visit; its lack of formality is particularly appealing to singles. Family reunions bring multiple generations of visitors to Fort Lewis. John estimates that each year an average of two people occupies their 13 rooms for 210 nights, which brings about 5,000 people to the region each year. People learn about Fort Lewis Lodge through word of mouth, the internet, the associations to which the lodge belongs, and magazine and newspaper articles. When Fort Lewis opened in 1988, marketing was difficult and expensive, but the internet has been great for the hospitality industry, and particularly helpful for places like Fort Lewis Lodge due to its relative remoteness. Only a small portion of their guests are local. Most, John estimates, are from three to four hours away (including those from Charlottesville, Richmond, and the District of Columbia).

The Cowdens had a vision for a country inn in a magnificent setting and through a tremendous amount of dedication and time they built a unique retreat for nature lovers. Caryl's contemporary American cooking—which relies heavily on local ingredients—consists of interesting menus with a great deal of attention paid to side dishes. The time and effort put into meal preparation is but one example of how seriously the Cowdens take hospitality, and how hard they work to offer their guests a truly relaxing and enjoyable experience. In terms of advice he might offer to someone wanting to open a similar business, John said be knowledgeable about the business and be interested in it.

7.4. Mountain View Farm

- **Year Agritourism Operations Began:** 2006
- **Estimated Annual Visitors:** 500
- **Current Employment:** 4 full time, 3 part time, plus the owners
- **Key products and services:** Grade A dairy products including cheese, butter, and ice cream; beef; and pork

Mountain View Farm provides an example of a dairy farm that began making farmstead cheese as a way to draw visitors to grow its revenues. Visitors currently drive to the farm to purchase the cheese where an honor system is used for payment; a country store is planned for the future.

Located in Rockbridge County, Mountain View Farm is a 250-acre dairy farm owned and operated by Fred and Christie Huger. The Hugers purchased the farm about three years ago after renting it for more than eight years; before renting Mountain View Farm, Fred had extensive experience working on local farms. Christie, a former art teacher in the public school system, began making farmstead cheese about six years ago. Mountain View Farm produces Grade A dairy products—including fresh cheeses, raw milk aged cheeses, butter, and ice cream—as well as inspected beef and pork. Christie described their typical customer as someone interested in knowing where their

food comes from, such as customers at Whole Foods in Richmond, Virginia. People learn about Mountain View's products by going to farmers' markets, through word of mouth, by viewing the farm's Facebook page and website, and through a small print advertising campaign. An estimated 25% of their customers are local. Christie estimates that they have about 40 visitors per month to the farm who spend approximately \$5 to \$10 each on average. Mountain



View Farm's products are also used by local restaurants and sold at specialty grocers as well as at local farmers' markets. From this perspective, agritourism currently accounts for only a small portion of overall farm business. The Hugers hope, however, to have a farm store opened by the fall which would provide a significant growth opportunity for agritourism revenue. Christie currently spends approximately three hours per week, on average, on agritourism activities including giving tours and talking to customers.

Christie identified both their lack of competition and the local food movement as two primary drivers of Mountain View Farm's growth. Their willingness to work long hours six days a week and to take risks by learning about and launching a new product line have also contributed immensely to their growth. Among the challenges faced as an agritourism operator, Christie said marketing is the biggest obstacle. One piece of advice Christie would offer someone interested in launching an agritourism business is to be willing to put in the time and effort and work hard.

7.5. White Oak Lavender Farm

- **Year Agritourism Operations Began:** 2009
- **Estimated Annual Visitors:** 30,000
- **Current Employment:** 4 full time, seasonal part time, plus the owners
- **Key products and services:** Farm tours, value-added products including lotions and soaps, classes

Agritourism at White Oak Lavender Farm began just three years ago because its owners wanted a secondary source of income.

White Oak Lavender Farm is a 25-acre farm situated in Rockingham County. It is owned and operated by Julie and Rick Haushalter. Currently, over 30 varieties of lavender are grown on the farm. In addition to the lavender, the beautiful grounds include animal petting areas, a duck pond, a labyrinth, and a discovery garden. The Haushalters started the agritourism operation three years ago but have owned the farm for the seventeen years. The mission of the farm is to offer a relaxing lavender experience and great lavender products. White Oak Lavender Farm offers tours in which visitors are educated about lavender, learn about the history of the property, and see the farm animals—including rabbits, horses, and alpacas. The retail store on the farm sells value-added products including lotions and soaps that are made on the farm. On a busy day, the retail store can see 60 to 70 customers with average sales per customer estimated to be approximately \$36. The farm also offers classes where, for example, individuals can make a lavender craft or learn how to use the labyrinth. The Haushalters are also launching an in-home party structure which offers the value-added lavender products coupled with education about the benefits of lavender; the parties will take



place in homes and offices and guest will make an aromatherapy craft and be introduced to healthy lifestyle practices for relaxation.

Julie and Rick learned about operating a lavender farm by traveling to the Pacific Northwest and Texas. They also were mentored, obtained help from the Small Business Administration, used a variety of online education resources, utilized the local Extension office, and attended relevant workshops. Plans for future expansion are limited by the farm's special use permit and are focused on deepening the business model through the addition of festivals and increasing online sales. Similar to many other agritourism operations, White Oak Lavender Farm is very involved in its community. One such example is the support services the farm offers to local cancer patients including workshops for families, caregivers, and individuals with cancer. This outreach is very personal to Julie whose sister died of breast cancer at a young age. The Haushalters also work closely with local universities; in fact, students from both James Madison University and Eastern Mennonite University participate in internships, workshops, and summer employment on the farm. Students have been an integral part of design and construction of lavender fields and lovely landscaping.

The growth and success of White Oak Lavender Farm has been driven by numerous factors. White Oak Lavender Farm's appeal is broad. School groups, families, people with stress in their lives, lavender lovers, tourists who want to visit a local farm, and locals who are entertaining guests all enjoy visiting the farm. The farm is particularly appealing to visitors because they hear a story and share someone's passion while learning. White Oak Lavender Farm's business growth has been aided by both the safety and hospitality visitors are offered. People feel good visiting, so they want to support the business. White Oak Lavender Farm continues to experience growth because it is meeting a need. That it is closely associated with Julie's passions only makes her message more powerful to those who visit. The beautiful and peaceful setting draws visitors in. Additionally, the Haushalter's determination to seek help and advice when necessary has been an immensely important factor in the farm's success. Finally, networking with Massanutten, a local resort, and other local establishments including restaurants, wineries, and bed & breakfasts has provided the farm with exposure.

Learning the regulations, understanding zoning laws, managing neighbor relations, and staying on top of the business have been some of the challenges the Haushalters have faced as agritourism operators. Because White Oak Lavender Farm is zoned for commercial use and not agricultural, it must adhere to additional zoning laws including having ADA compliant bathrooms. These laws are expensive to comply with and make getting new businesses up and running more difficult. Julie suggested others starting out might benefit from a centralized system or a booklet to make useful information easily accessible. Another suggestion she had to support new agritourism operators or those considering opening an agritourism business were for the county to offer informational seminars. Additionally, she thought it would be helpful to be able to have an affordable way for agritourism businesses to track where visitors are from. As far as offering advice to others, Julie said to consider that long hours involved and to keep in mind that it takes a while to develop it as a source of secondary income. It must, she felt, be driven by something deeper than a desire for financial gain.



Appendix 1: Impact Study Glossary

IMPLAN Professional is an economic impact assessment modeling system. It allows the user to build economic models to estimate the impact of economic changes in states, counties, or communities. It was created in the 1970s by the Forestry Service and is widely used by economists to estimate the impact of specific event on the overall economy.

Input-Output Analysis—an examination of business-business and business-consumer economic relationships capturing all monetary transactions in a given period, allowing one to calculate the effects of a change in an economic activity on the entire economy (impact analysis).

Direct Impact—economic activity generated by a project or operation. For construction, this represents activity of the contractor; for operations, this represents activity by tenants of the property.

Overhead—construction inputs not provided by the contractor.

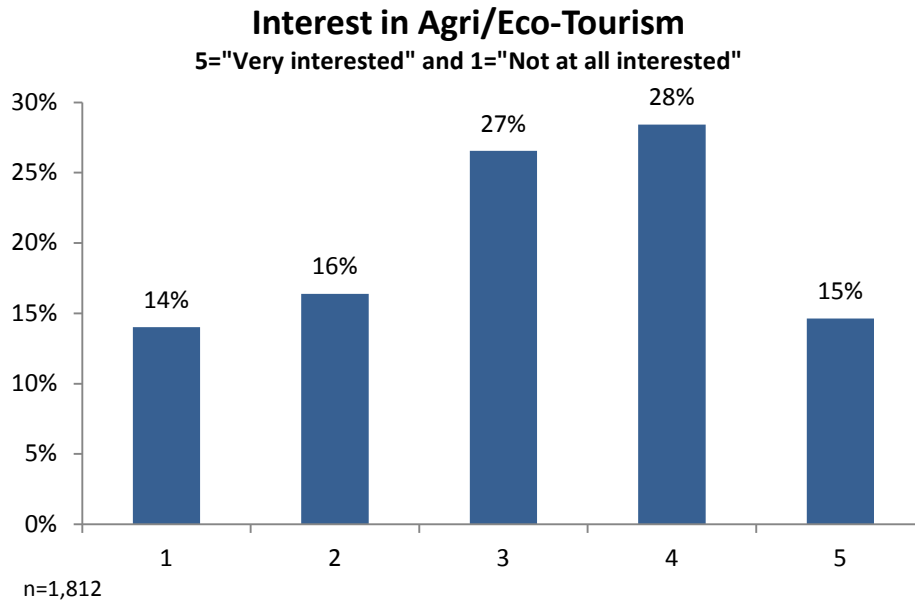
Indirect Impact—secondary economic activity that is generated by a project or operation. An example might be a new office building generating demand for parking garages.

Induced (Household) Impact—economic activity generated by household income resulting from the direct and indirect impact.

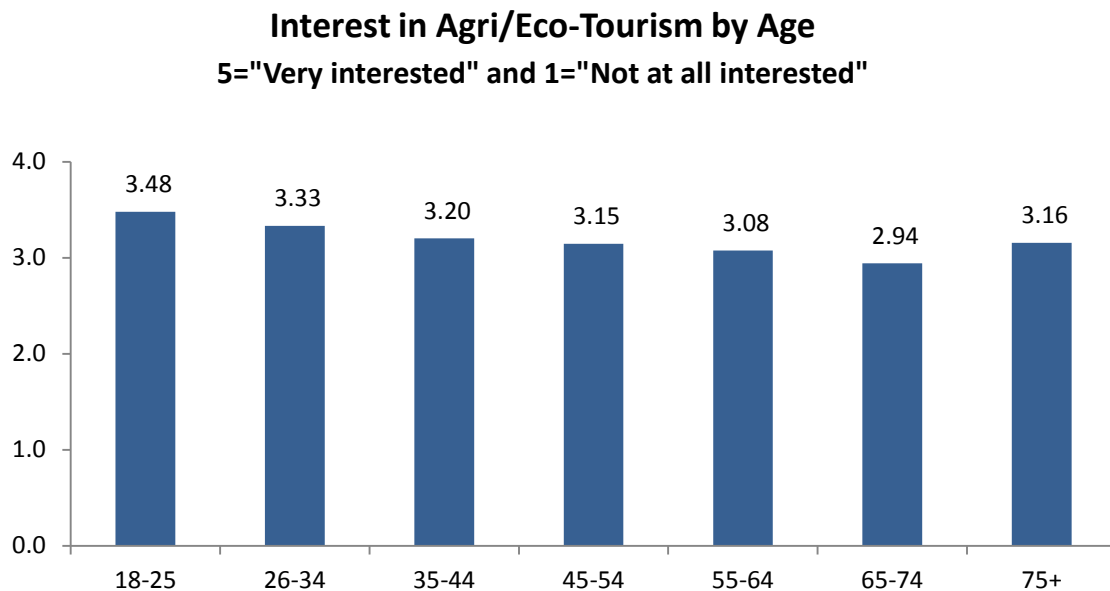
Multiplier—the cumulative impacts of a unit change in economic activity on the entire economy.



Appendix 2: Excerpt from the VTC Attitudinal Survey



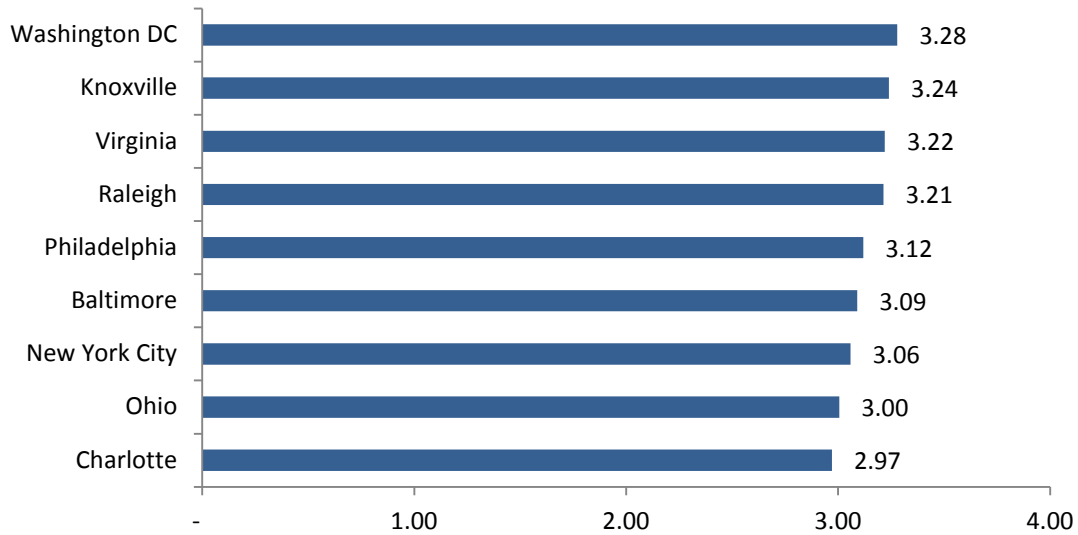
- Women were more likely to be "very interested" in agri/eco-tourism than men*



- Average interest in agri/eco-tourism among all respondents was 3.13.
- Interest in agri/eco-tourism was positively correlated* with younger ages

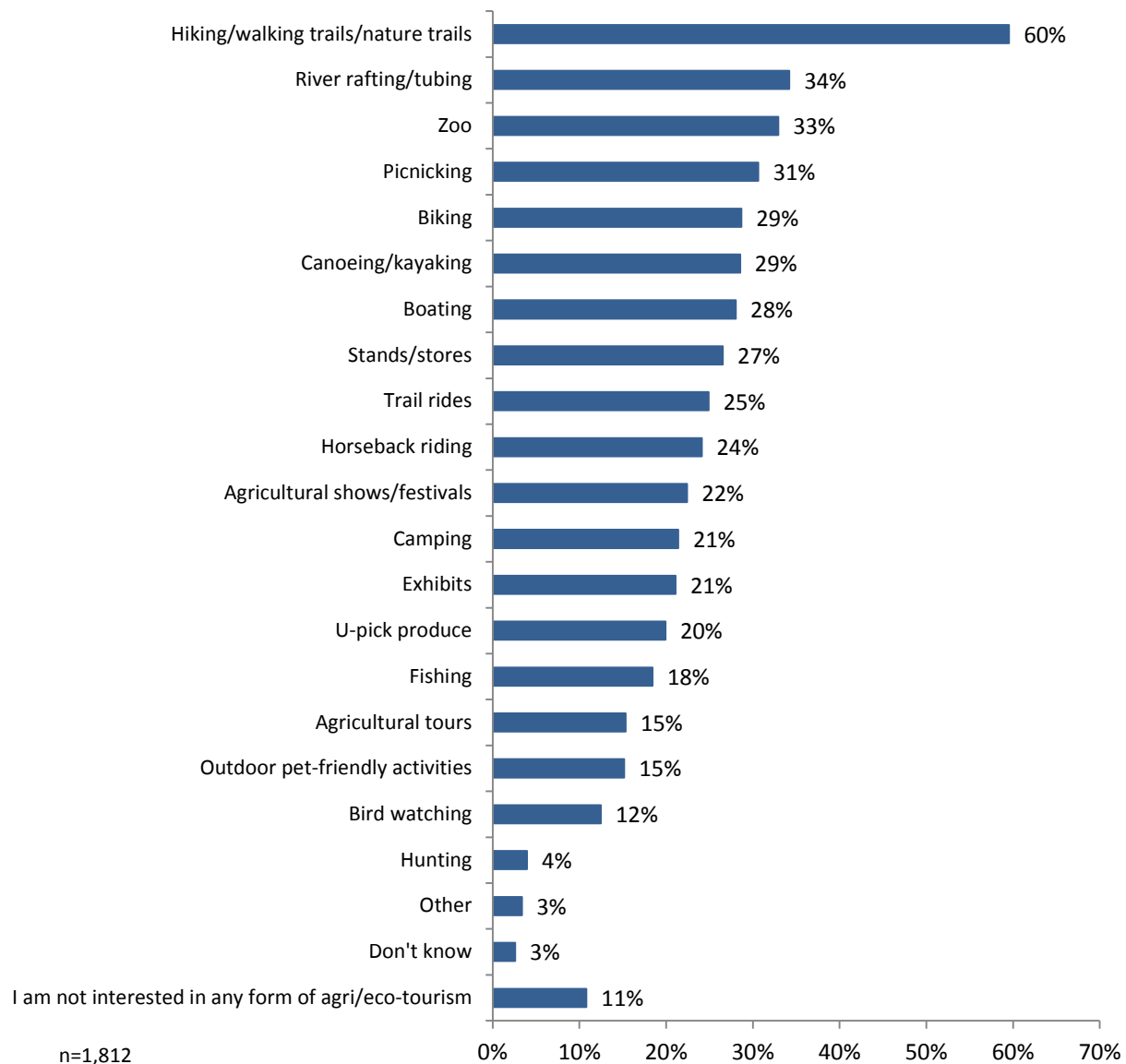
Interest in Agri/Eco-Tourism by Market Area

5="Very interested" and 1="Not at all interested"



- Average interest in agri/eco-tourism among all respondents was 3.13.
- Differences by market area were not statistically significant with 95% confidence.

Interest in Specific Types of Agri/Eco-Tourism



- Hiking/walking/trails/nature trails
 - Interest in hiking/walking trails/nature trails was higher* among younger age cohorts: 71% among those age 18-34, 60% among those age 35-64, and 48% among those 65+.
 - Interest in hiking/walking trails/nature trails was higher* among women (62%) than men (57%).
 - Interest in hiking/walking trails/nature trails was higher* among those making \$50,000 or more (61%) than those making under \$50,000 (53%).
 - Interest in hiking/walking trails/nature trails was higher than average in Virginia+ (67%) and lower than average in New York City* (47%) and Charlotte+ (54%).
- River rafting/tubing
 - Interest in river rafting/tubing was higher* among younger age cohorts: 50% among ages 18-34, 34% among ages 35-64, and 20% among ages 65+.

- Interest in rafting/tubing was higher+ among those making \$75,000 or more (36%) than those making under \$75,000 (31%).
 - Interest in river rafting/tubing was higher than average in Raleigh* (42%) and lower than average in New York City+ (27%).
- Zoo
 - Interest in the zoo was higher* among younger age cohorts: 45% among ages 18-34, 33% among ages 35-64, and 23% among ages 65+.
 - Interest in the zoo was higher* among women (38%) than men (28%).
 - Interest in the zoo was higher* among those making less than \$100,000 (37%) than those making \$100,000 or more (31%).
- Picnicking
 - Interest in picnicking was higher* among younger age cohorts: 49% among ages 18-34, 29% among ages 35-64, and 23% among ages 65+.
 - Interest in picnicking was higher* among women (37%) than men (25%).
 - Interest in picnicking was higher* among those making less than \$100,000 (35%) than those making \$100,000 or more (28%).
- Biking
 - Interest in biking was higher* among younger age cohorts: 41% among ages 18-34, 29% among ages 35-64, and 17% among ages 65+.
 - Interest in biking was higher* among those making \$50,000 or more (42%) than those making under \$50,000 (28%).
 - Interest in biking was lower than average* in Charlotte (20%).
- Canoeing/kayaking
 - Interest in canoeing/kayaking was higher* among younger age cohorts: 43% among ages 18-34, 29% among ages 35-64, and 15% among ages 65+.
 - Interest in canoeing/kayaking was higher* among those making \$100,000 or more (31%) than those making under \$100,000 (26%).
 - Interest in canoeing/kayaking was higher than average in Raleigh+ (35%) and lower than average in Philadelphia+ (22%).
- Boating
 - Interest in boating was higher* among younger age cohorts: 38% among ages 18-34, 29% among ages 35-64, and 17% among ages 65+.
 - Interest in boating was lower than average+ in Philadelphia (22%).
- Stands/stores
 - Interest in stands/stores was higher* among women (30%) than men (23%).
 - Interest in stands/stores was higher+ among those making less than \$75,000 (28%) than those making \$75,000 or more (24%).
 - Interest in stands/stores was lower than average in Philadelphia+ (21%).
- Trail Rides
 - Interest in trail rides was higher* among younger age cohorts: 43% among ages 18-34, 25% among ages 35-64, and 10% among ages 65+.
 - Interest in trail rides was higher* among women (28%) than men (22%).
- Horseback riding
 - Interest in horseback riding was higher* among younger age cohorts: 45% among ages 18-34, 24% among ages 35-64, and 8% among ages 65+.
 - Interest in horseback riding was higher* among women (28%) than men (20%).



- Interest in horseback riding was higher* among those making less than \$100,000 (27%) than those making \$100,000 or more (22%).
 - Interest in horseback riding was higher than average+ in Ohio (30%).
- Agricultural shows
 - Interest in agricultural shows was higher* among women (26%) than men (19%).
 - Interest in agricultural shows was higher+ among those making less than \$50,000 (27%) than those making \$50,000 or more (21%).
- Camping
 - Interest in camping was higher* among younger age cohorts: 43% among ages 18-34, 21% among ages 35-64, and 8% among ages 65+.
 - Interest in camping was higher* among those making less than \$100,000 (25%) than those making \$100,000 or more (20%).
 - Interest in camping was higher than average in Charlotte* (29%) and Virginia+ (27%) and lower than average* in New York City (12%) and Philadelphia (12%).
- Exhibits
 - Interest in exhibits was higher* among women (24%) than men (19%).
 - Interest in exhibits was higher* among those making less than \$100,000 (26%) than those making \$100,000 or more (17%).
 - Interest in exhibits was higher than average* in Knoxville (28%).
- U-Pick produce
 - Interest in U-Pick produce was higher* among younger age cohorts: 28% among ages 18-34, 20% among ages 35-64, and 13% among ages 65+.
 - Interest in U-Pick produce was higher* among women (24%) than men (16%).
 - Interest in U-Pick produce was higher* among those making less than \$50,000 (29%) than those making \$50,000 or more (19%).
 - Interest in U-Pick produce was lower than average* in Philadelphia (13%).
- Fishing
 - Interest in fishing was higher* among younger age cohorts: 23% among ages 18-34, 19% among ages 35-64, and 12% among ages 65+.
 - Interest in fishing was higher* among those making less than \$50,000 (23%) than those making \$50,000 or more (18%).
 - Interest in fishing was higher than average* in Virginia (26%).
- Agricultural tours
 - Interest in agricultural tours was higher* among younger age cohorts: 24% among ages 18-34, 15% among ages 35-64, and 12% among ages 65+.
 - Interest in agricultural tours was higher+ among women (17%) than men (14%).
 - Interest in agricultural tours was higher* among those making less than \$50,000 (21%) than those making \$50,000 or more (15%).
- Outdoor pet-friendly activities
 - Interest in outdoor pet-friendly activities was higher* among younger age cohorts: 26% among ages 18-34, 15% among ages 35-64, and 9% among ages 65+.
 - Interest in outdoor pet-friendly activities was higher* among women (18%) than men (13%).
 - Interest in outdoor pet-friendly activities was higher* among those making less than \$100,000 (17%) than those making \$100,000 or more (14%).
 - Interest in outdoor pet-friendly activities was higher than average* in Virginia (21%).
- Bird watching



- Interest in bird watching was higher* among older age cohorts: 16% among ages 65+, 13% among ages 35-64, and 7% among ages 18-34.
- Interest in bird watching was lower than average+ in New York City (8%).

Appendix 3: Case Study Questions

Purpose: Identify factors that led to the success of the business.

BACKGROUND

When did you start your business?

Initial number of employees? Current number of employees?

Please describe your product.

What is your biggest market area?

Do you have a business and/or marketing plan?

What resources did you use to learn your business?

How steep would you consider the learning curve to your business to be?

What do you believe were the drivers of your business' growth?

Do you have any plans to expand your business?

Do you belong to an agricultural, business, and tourism association, and if so which one(s)? In what ways have they been able to offer support to your business? How would you advise new businesses like you who want to grow?

How do people learn about your business?

Who/what is your biggest competitor?

Does your business use a lot of local suppliers and businesses? Can you estimate a percentage?

CUSTOMER

Please describe your customer.

How do people learn about your business?

Roughly what percentage of your customers are local (i.e., within a one hour drive) as opposed to visitors?

Do you keep in contact with past customers, and if so how?

DAY-TO-DAY OPERATIONS

Does the weather have a large impact on your business?

Is your business seasonal?

What are your typical hours of operation each day?



On average, how many visitors come to your farm/businesses each month/ year?

Can you estimate how much they spend on your farm (tickets, purchases of products) per person?

CHALLENGES

What is the biggest challenge you have encountered as an agri-tourism business operator?

What major concerns or assistance needs do you have with respect to your business' future growth?

What is your biggest market area?

Who/what is your biggest competitor?

On average, how many visitors come to your farm/businesses each month/ year?

Can you estimate how much they spend on your farm (tickets, purchases of products) per person?

Does your business use a lot of local suppliers and business? Can you estimate a percentage?

ADVICE TO OTHERS

How would you advise new businesses like you who want to grow?



Appendix 4: Chmura Additional Survey Questions

19. Please estimate how many agritourism visitors you receive annually: _____
 - If possible, please estimate % of visitors out of the Shenandoah Valley _____
 - If possible, please estimate % of visitors out of state of Virginia _____
20. What is your annual average revenue (gross) from your agritourism operations? (Do not include revenue from production operations; only include the tourism-related portion, such as admission fees, lodging, products and food sold to visitors.): _____
21. What is your annual average revenue (gross) from all your business operations? (including both tourism-related and revenue from all other sources): _____
22. On average, how many employees (including yourself) do you employ in agritourism operations in the following categories?
 - Year-round
 - Full-time: _____ employees
 - Part-time: _____ employees at an average of _____ hours per week
 - Seasonal
 - Full-time: _____ employees for _____ months
 - Part-time: _____ employees for _____ months at an average of _____ hours per week
23. For local restaurants and retail shops, one additional question should be asked.
 - Can you estimate, of all your customer base, the percentage that visited your restaurant/shop specifically for local-sourced products? _____

