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Mapping the Agricultural Assets of Lauderdale County, Tennessee

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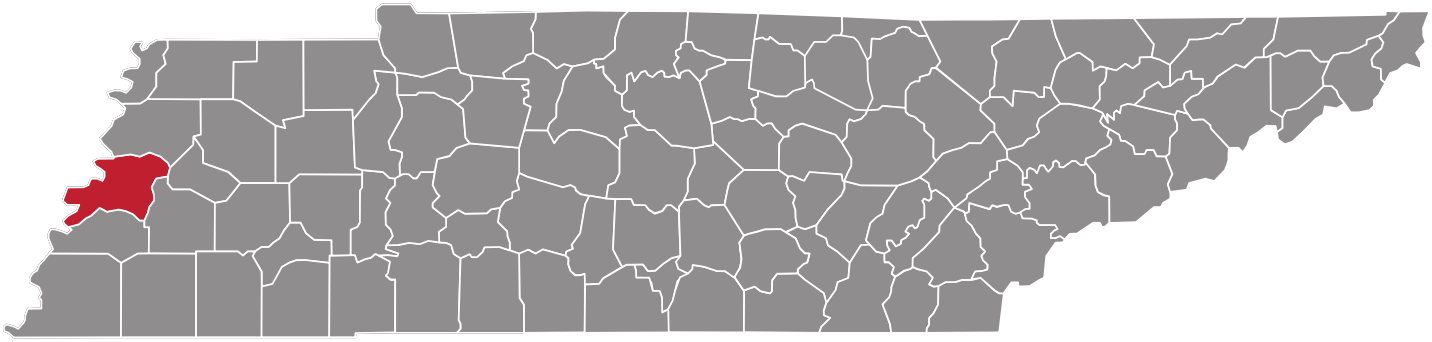

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Introduction

Presented here is an agricultural asset mapping report for Lauderdale County, Tennessee. The report is based on a combination of focus group meetings with local agricultural leaders and secondary data. The primary goal is to help local leaders identify agricultural assets that could be used to support economic growth and development of the county. A secondary goal is to increase the understanding of local agriculture. Several other counties (Grundy (Hughes and Kimbro, 2021), Hancock (Hughes et al., 2018a), Hardeman (Hughes et al., 2018b), and Perry (Hughes and Mathenia, 2021)) have undergone the same effort. We believe that this replicating approach could be beneficial for other interested counties.

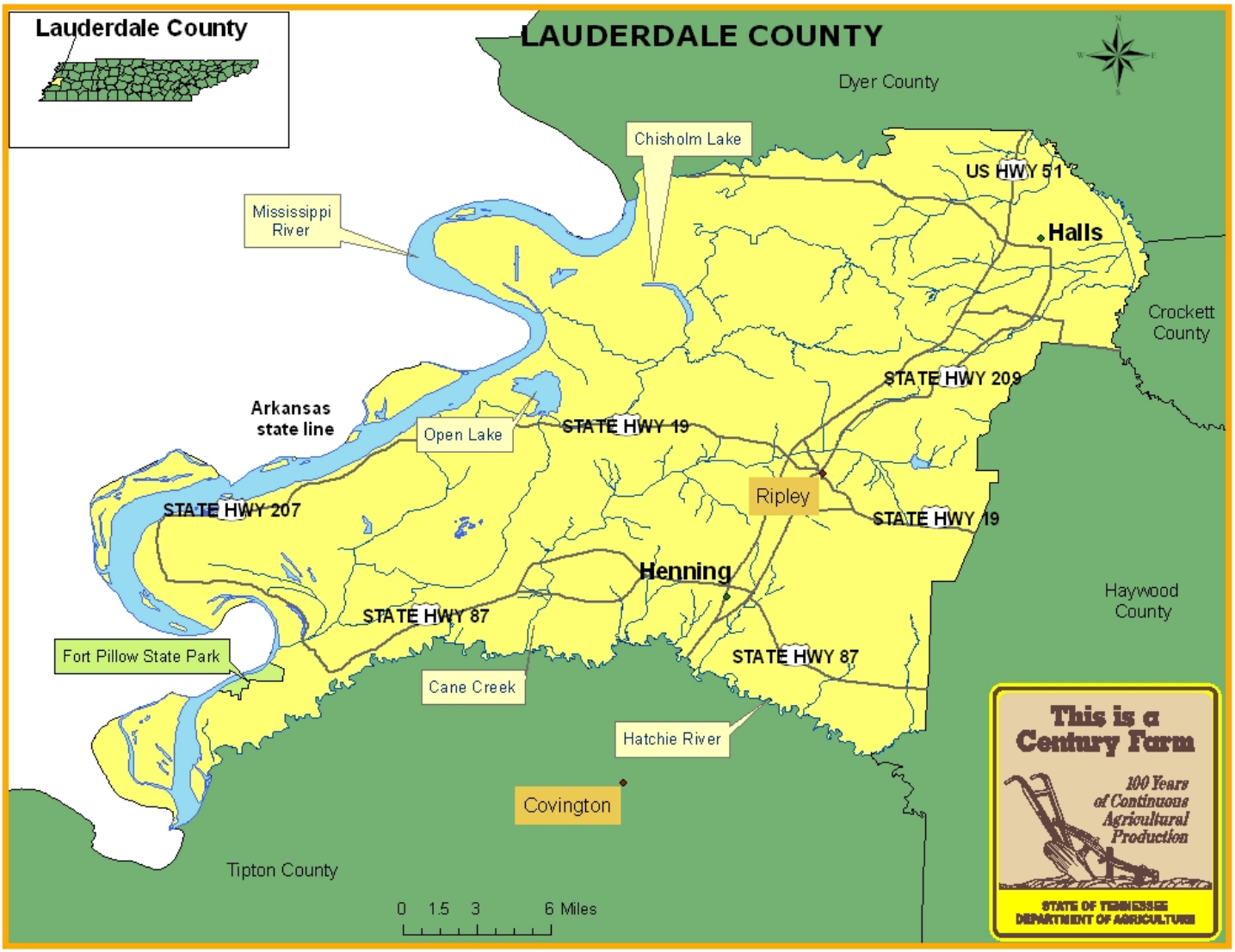
Initially provided here is a discussion regarding general information about Lauderdale County, followed by information regarding the asset mapping exercise with local agribusiness leaders. The follow-up data-based analysis is then discussed, including recommendations based on that analysis. We subsequently discuss the agribusiness targets identified by local leaders, followed by a summary, conclusions and a call for further action.

Background on Lauderdale County

Situated on the Mississippi River, Lauderdale County is rich in scenic beauty and local history. The county is located on the western edge of Tennessee. It is 472 square miles (U.S. Census, 2019) with state highways 19, 87, 88, 180, 181 and 371, and U.S. Highway 51 crossing the county. The town of Ripley is the county seat. Gates, Halls and Henning are incorporated towns, and there are numerous unincorporated communities including Arp, Cherry, Durhamville, Fulton, Glimp, Golddust and Orysa.

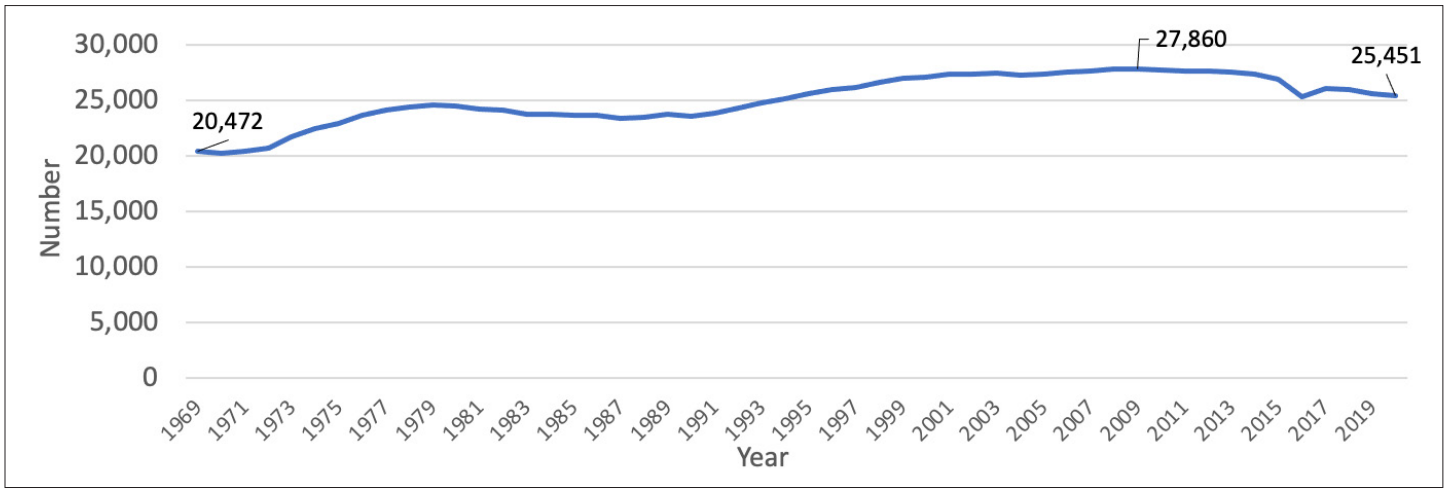
The 2021 population was estimated to be 25,108, a slight decrease from 2020. As of 2021, the U.S. Census Bureau reports there are 9,609 households with an average of 2.39 persons per household. The median household income is $41,905 with an estimated 19.8 percent of residents in poverty (U.S. Census Bureau, 2022a). As shown in Figure 2, the population has increased by almost 5,000 individuals since 1969 (U.S. Bureau of Economic Analysis, 2022).

Figure 1. Map of Lauderdale County Tennessee.



Source: *Tennessee Century Farms, 2022.*

Figure 2. Lauderdale County Tennessee Population, 1969-2020.



Source: *Bureau of Economic Analysis, 2022.*

Agriculture production in Lauderdale County makes a significant contribution to the local economy. As of 2017, there were 404 farming operations with an average size of 385 acres (Census of Agriculture, 2020). Among the 155,683 acres devoted to agriculture, 86 percent was in cropland, 6 percent was devoted to woodland, 5 percent was planted in pasture and 2 percent was devoted to other uses. The top commodities for Lauderdale County include grains and soybeans with $51.140 million in sales, cotton and cottonseed with $13.975 million in sales and cattle at $2.670 million in sales.

Based on data from an economic model of the county economy for 2019 (Minnesota IMPLAN Group, Inc., 2000), crop farming accounted for 736 jobs, animal production accounted for 25 jobs and agricultural services provided generated 130 jobs.

A 2018 economic impact analysis conducted for all agribusiness activity in Lauderdale County showed a total direct contribution of 1,331 jobs, $257.5 million in outputs and a total impact of $325.2 million in output and 1,853 jobs (or 23.4 percent of all employment in the county) (Hughes et al., 2018a).

Lauderdale County is currently a Tier Four Tennessee Economy Development County and an Appalachian Regional Commission (ARC) distressed county meaning it ranks at or near the bottom (25 percent) of Tennessee counties in terms of poverty rate, unemployment rate, per capita income and other economic indicators (Transparent Tennessee, 2022).

Asset Mapping Exercise

An agricultural asset mapping exercise was held with county agricultural leaders (farmers, agribusinesses and local government leaders) on November 4, 2021. Participants were asked to think about opportunities for the county such as local and regional markets and target areas as they pertain to local agriculture or agribusiness. The participants were recruited by UT Extension Agent and County Director JC Dupree and represented agricultural leadership in Lauderdale County. Participants were given dots to place where local businesses (red), physical assets (blue), challenges (yellow) and possible opportunities (green) are available throughout the county (Figures 3 and 4). We present the challenges and the opportunities offered by the participants in the following sections.

Figure 3. Results from Agricultural Asset Mapping Exercise for Lauderdale County.

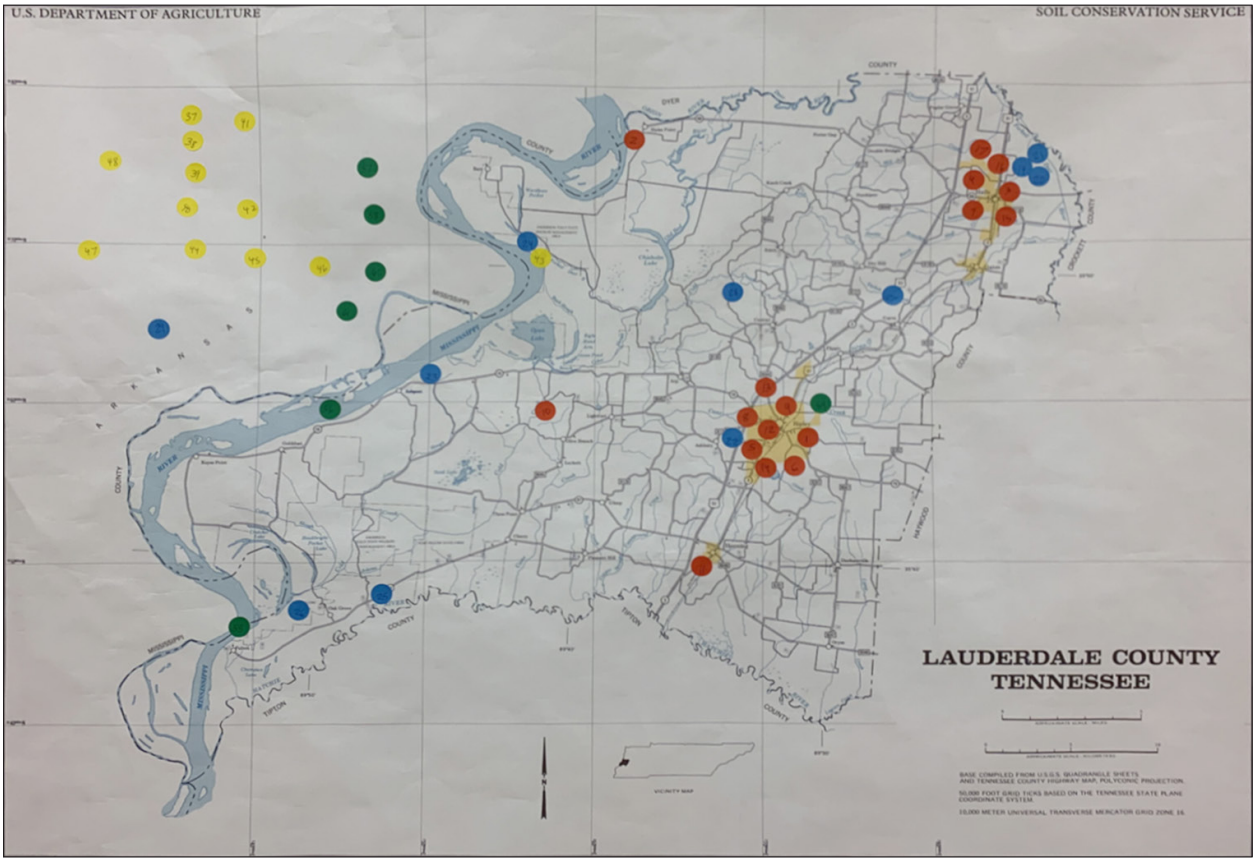


Figure 4. Listed Businesses, Agricultural Asset Mapping Exercise for Lauderdale County.

Businesses	
#1	John Deere Dealership – Ripley
#2	Cargill Grainery – North on River
#3	Cotton Gins – Halls
#4	Hurt Seed Company – Halls – Seed cleaning facility; high-quality soybean seed
#5	Simplot Grower Solutions – Ridley
#6	Helena Agri-Enterprises – Ripley and Halls; Ag Input Supplier
#7	Green Point Ag. – Halls; Agronomy company serving farmers and retailers
#8	Ripley Farm Store – Nursery and Gardening Store
#9	FSA/NRCS/UT Extension
#10	Hargett's Meat Processing – Ripley
#11	Wood Industry • Tyus Pallet (Henning) • West Tennessee Pallet and Crate (Halls) • Henning Hardwoods (Henning)
#12	Farmers Market • Ripley • Halls
#13	Tomatoes/Commercial Sales, Vegetables, and Other Produce – Ripley and Halls, CD Produce (Gates)
#14	Lauderdale Cannery, Ripley
#15	Hansbrough's Landscaping & Nursery, Halls
#16	Mid-South Tree Farm & Wholesale Nursery, Halls
#17	Crop Dusters – Halls (2)

Physical and Agricultural Assets	
#19	Air Base/Station – Halls – Location where cotton is stored
#20	Livestock Barn on Fairgrounds – Halls
#21	Exhibit Buildings @ Fairgrounds – Tractor Pull Course
#22	Riding Clubs – Ripley and Halls; Flying "H" Arena, Halls
#23	Mississippi River Corridor Overlook at Highway 19
#24	The Bottoms
#25	Fort Pillow Prison/Farm
#26	Fort Pillow State Historic Park
#27	Four-Lane Highway – Highway 51
#28	Railroads/Railways
#29	Good Discharge/Drainage System

Challenges	
#37	Labor Challenges
#38	Lack of Transportation – This is about the Ford Plant that is coming in. Highway 51 is a 4-lane but everything else from Ripley to Brownsville or Ripley to I-40 and Covington area to I-40 is 2-lane roads. Also these 2-lane roads are not conducive to navigating big farm equipment.
#39	Lack of Adequate Housing
#40	Planning Process to manage growth: Looking at the new Ford Plant/Project coming into the region
#41	Child Care – Accessible and Affordable Child Care
#42	Obtaining Farm Parts – Easy Access
#43	Slow Movement of Grain Loading/Unloading causing drivers to wait 3 hours or more - Close early and turn trucks away that are in line; Open at 7:30 AM, this should be earlier
#44	Lack of Grain Storage
#45	Internet Services – Forked Deer Electric does a good job; but two other providers cannot supply Internet services due to current law
#46	Cell Service – Some Improvement here
#47	Population Decline – Loss of educated younger people to other communities – this has a large effect on other things in the county
#48	Developing students to become familiar with and use Ag Technology

Opportunities	
#55	Bridge over Mississippi River @ Fort Pillow
#56	Asian Carp – Learning How to Harvest
#57	Cotton Seed Processing Plant – Cannot send this byproduct to feedlots as it is cost prohibitive
#58	Branded Beef Program
#59	Ripley Tomatoes
#60	Ag Side – Use of Drones, Computers, align with the new Ford Plant; "Producing AG Technologies," TCAT – these need more work in Ag Technologies to train students
#61	Large Animal Veterinarian

Local Businesses

Local businesses were identified based on their importance and/or ability to contribute to economic growth in the county. Identified businesses included agricultural input providers such as the John Deere Dealership in Ripley, Hurt Seed Company in Halls and Helena Agri-Enterprises in Ripley and Halls. Several processors of agricultural products included Lauderdale Cannery in Ripley and Hargett's Meat Processing, a custom-exempt slaughter facility that processes beef, hogs, sheep, goats and wild game (including deer) on an animal-share basis. There are also farmers' markets in Halls and in Ripley.

Other identified businesses related to local forests. These businesses included Tyus Pallet in Henning, West Tennessee Pallet and Crate in Halls, and Henning Hardwoods in Henning.

Physical, Other Assets

Attendees emphasized the scenic assets of the county including the Mississippi River Corridor Overlook at U.S. Highway 19 and the bottoms area. The county has a four-lane highway (51), a system of railroads and a good water discharge and drainage system. Other assets include local horseback riding clubs and activities at the county fairground.

Challenges

In terms of agriculture, attendees emphasized the difficulty of obtaining farm equipment parts, lack of local grain storage and how slow it often takes to unload grain trucks. Access to qualified workers, lack of affordable childcare facilities and housing, and loss of population are all related problems. Moreover, there is limited broadband and cell phone service in Lauderdale County. Several challenges relate to the new Ford Motor Company production plant being built in nearby Tipton County, including the need for more four-lane highways in the county and a planning process to handle the coming growth.

Opportunities

Besides the opportunities identified elsewhere, participants identified a bridge over the Mississippi River as an opportunity. Attendees also mentioned harvesting Asian carp in addition to starting a processing facility and developing a cottonseed processing plant. Developing a local-regional branded beef program and marketing Ripley tomatoes were seen as opportunities. Additionally, obtaining a large animal veterinarian to service the livestock industry in the region was seen an opportunity. Finally, attendees mentioned developing a training program, especially for students, for agricultural technologies such as the use of drones and computers.

Follow-Up Analysis and Discussion

A subsequent meeting was held with Lauderdale County agricultural leaders on April 18, 2022. The discussion centered on assessing the agricultural assets discussed in the prior meeting and the results of our data analysis.

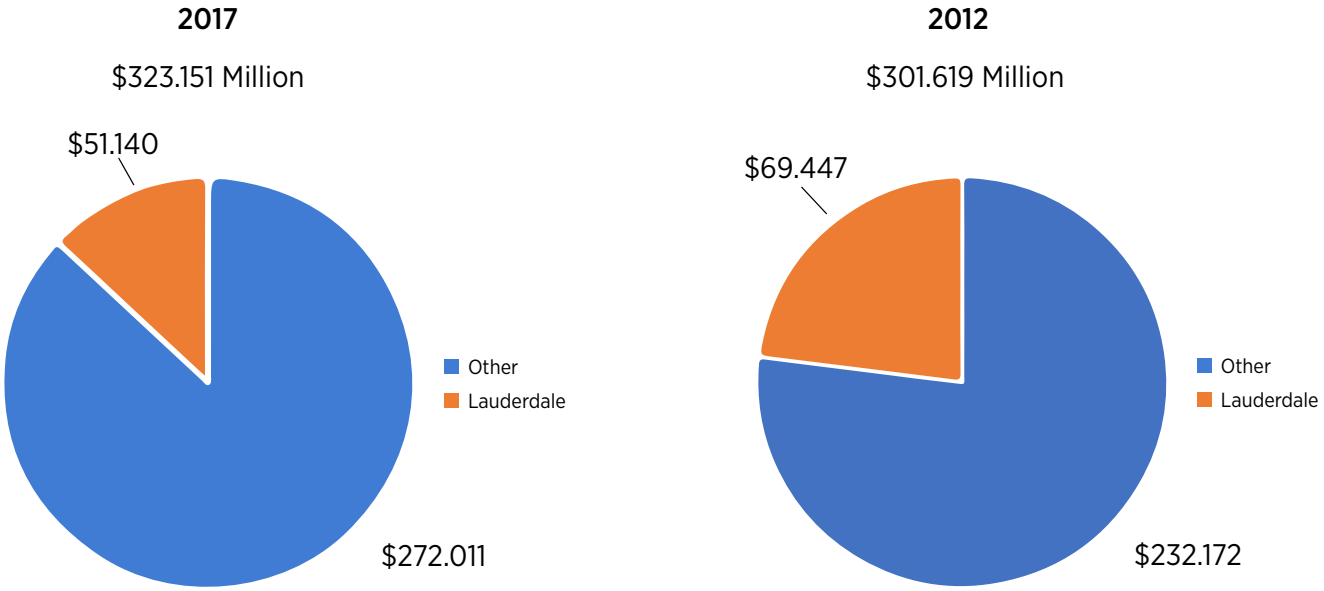
Targeted Industry Economic Cluster Approach

We used a targeted industry approach to identify industries as possible assets. Our data analysis includes five counties, specifically Lauderdale County and the surrounding Tennessee counties of Crockett, Dyer, Haywood and Tipton. In several cases, our analysis dovetails with the assets identified by local agricultural leaders. Based on secondary data sources (IMPLAN data for 2013 and 2019), we examined industries based on the number of jobs in the region (a minimum of 10), concentration (location quotients greater than 1.5 for output, jobs and pay) and regional growth, then exploring U.S. estimates for 2013 versus 2019 (for output, jobs and pay). We also used financial analysis provided by the website IndustriusCFO Financial Analysis (2022) regarding business failure rates and profitability compared to the national average for all U.S. businesses. The results of the analysis for row crop, hay, livestock-related farming, fruits, vegetables and ornamental plants are discussed next.

Local Row Crops and Hay

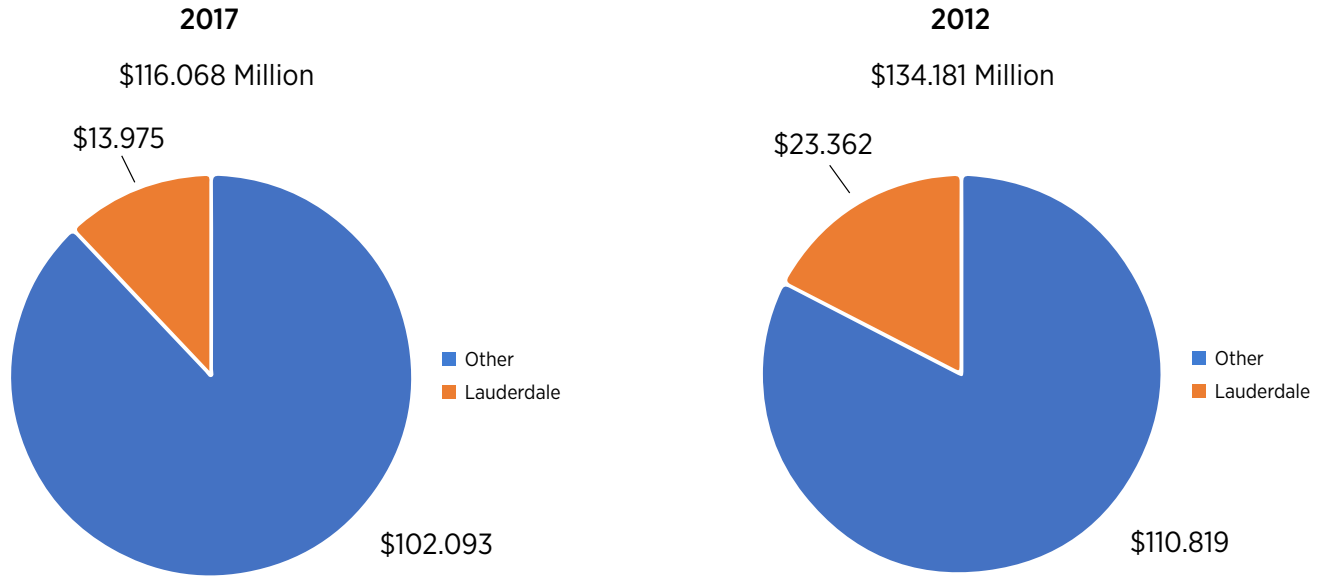
Grains, soybeans and cotton are mainstays of the agricultural landscape in Lauderdale County and its neighboring counties. The value of grains and soybean production increased from $301.619 million in 2012 to $323.151 million in 2017 in the five-county region, but the value of this production in Lauderdale County decreased from $69.447 million to $51.140 million over the same period (Figure 5). The value of cotton and cottonseed production declined at both the regional (from $134.181 to $116.068 million) and county levels (from $23.362 million to $13.975 million) from 2012 to 2017 (Figure 6). Conversely, the value of hay production increased at both the regional and county levels (Figure 7).

Figure 5. Value of Regional Grain and Soybeans Sales, 2017, 2012.



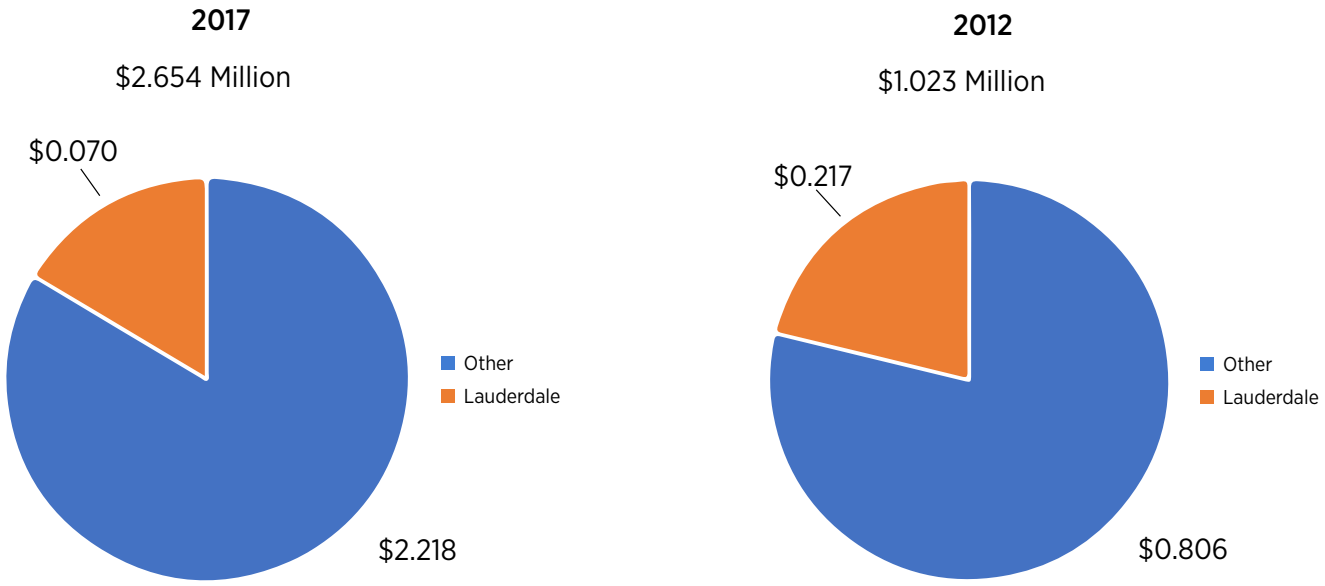
Source: *Census of Agriculture, 2012, 2017.*

Figure 6. Value of Regional Cotton and Cottonseed Sales, 2017, 2012.



Source: *Census of Agriculture, 2012, 2017.*

Figure 7. Value of Regional Hay and Other Crop Sales, 2017, 2012.

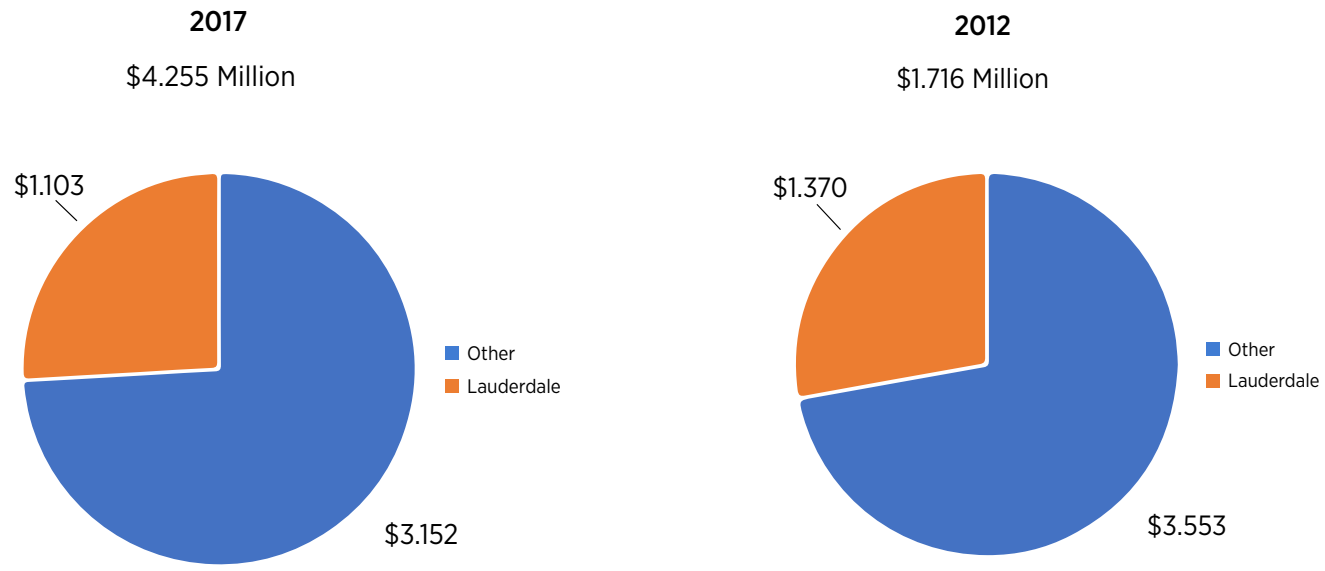


Source: *Census of Agriculture, 2012, 2017.*

Local and Regional Fruits, Vegetables and Ornamental Horticulture

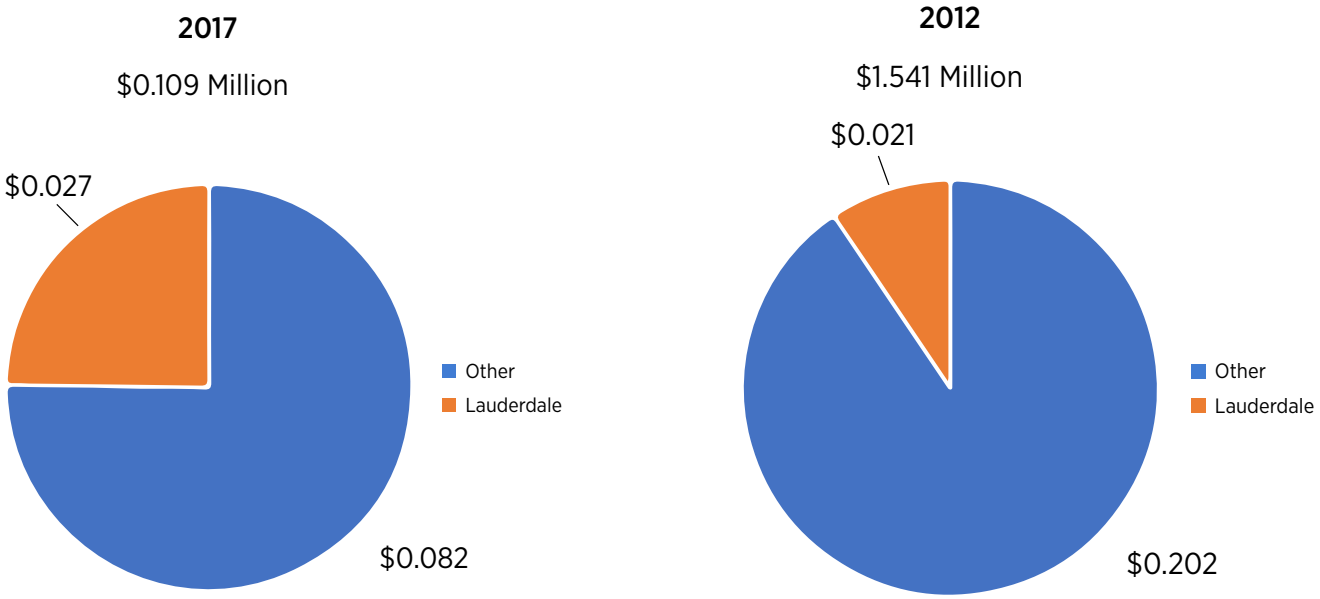
Increased fruit and vegetable sales could be an avenue of future growth. As shown in Figure 8, vegetable sales in the five-county region increased from $1.716 million in 2012 to $4.255 million in 2017 with a slight decline in Lauderdale County sales (from $1.37 million to $1.103 million). The Ripley tomato opportunity would be a way to bolster this part of the local agricultural economy. In contrast, regional fruit had a marked decrease in sales from $1.541 million in 2012 to $0.109 million in 2017 (Figure 9). Ornamental horticulture (nursery, greenhouse, floriculture, sod and short rotation woody crops including Christmas trees) sales in the five-county region decreased from $2.257 million in 2012 to $1.933 million in 2017 (Figure 10).

Figure 8. Value of Regional Vegetable Sales, 2017, 2012.



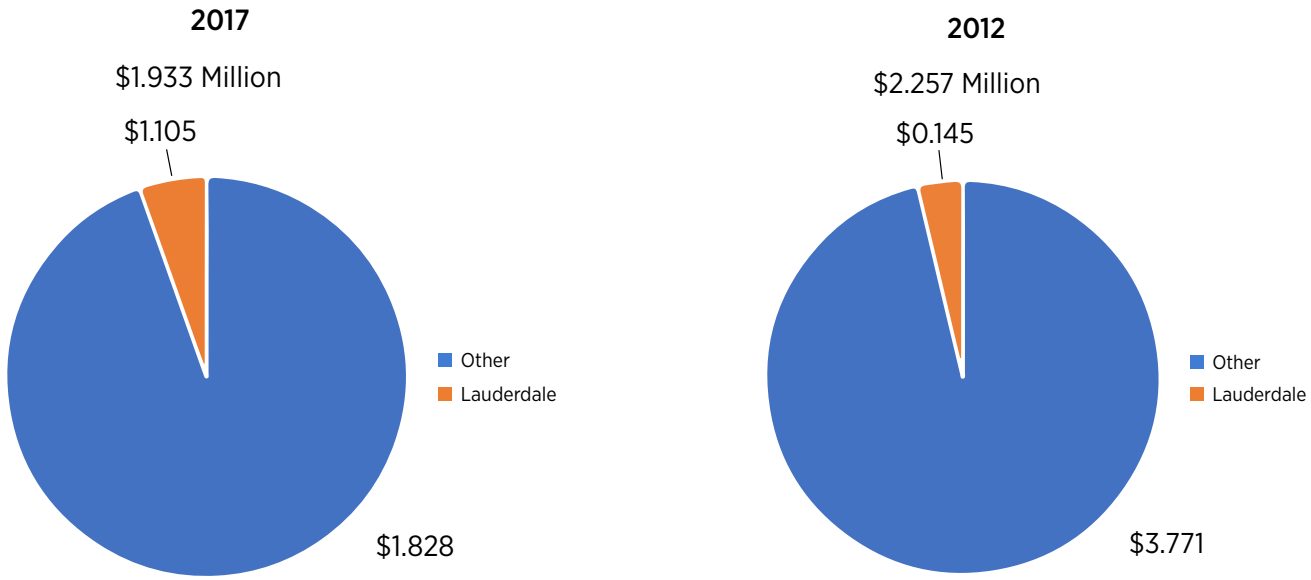
Source: *Census of Agriculture, 2012, 2017.*

Figure 9. Value of Regional Fruit and Berry Sales, 2017, 2012.



Source: *Census of Agriculture, 2012, 2017.*

Figure 10. Value of Regional Ornamental Horticulture Sales, 2017, 2012.

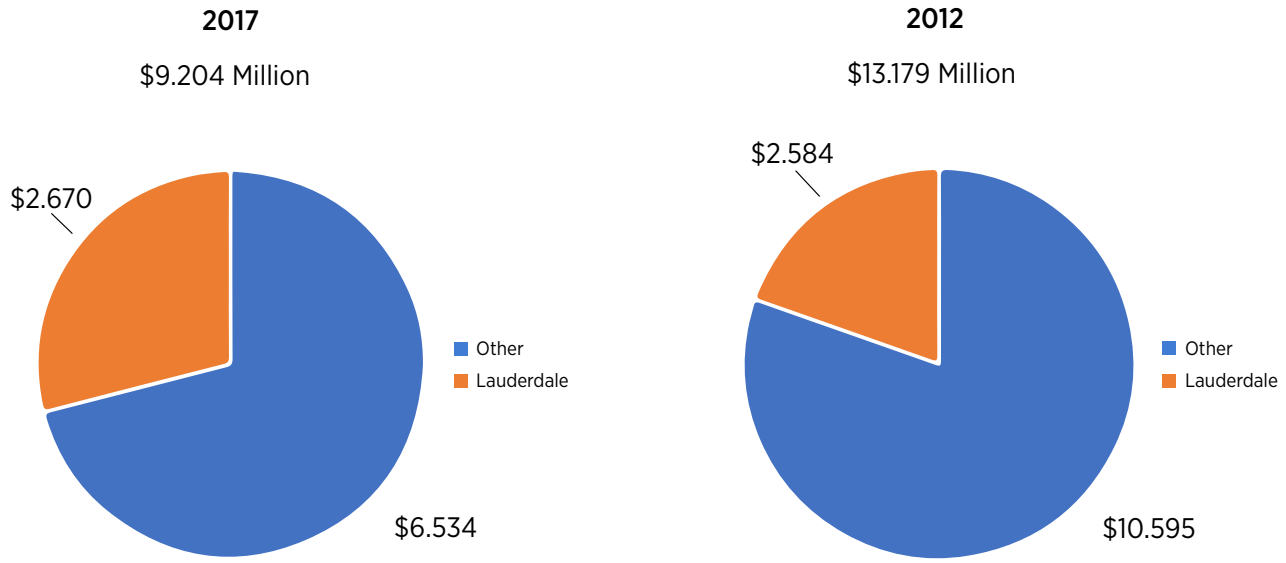


Source: *Census of Agriculture, 2012, 2017.*

Local Livestock

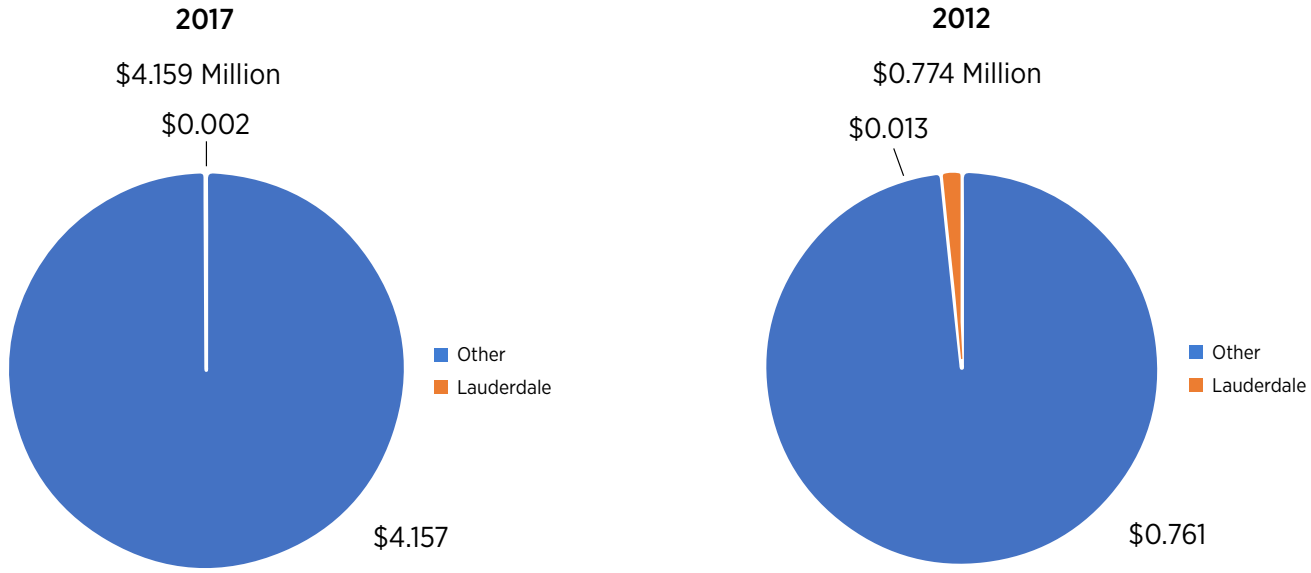
From 2012 to 2017, the value of cattle sales decreased from $13.179 million to $9.204 million for the region but increased in Lauderdale County from $2.584 million to $2.670 million (Figure 11). Regional hog and pig sales showed a marked increase from $0.774 million in 2012 to $4.159 million in 2017 although none of this growth happened in Lauderdale County (Figure 12). The value of poultry and egg sales in the five-county region was under $300,000 in both 2012 and 2017, while the value of regional and county goat and sheep sales increased slightly from 2012 to 2017 (Figure 13 and Figure 14).

Figure 11. Value of Regional Cattle Sales, 2017, 2012.



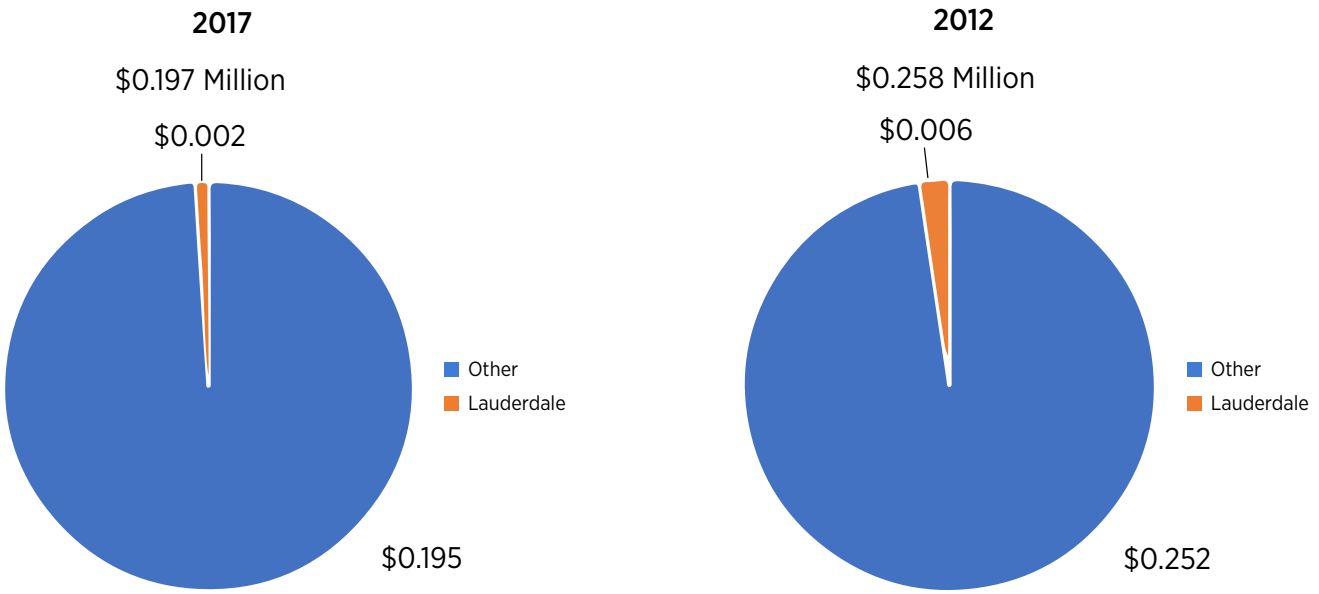
Source: *Census of Agriculture, 2012, 2017.*

Figure 12. Value of Regional Hog and Pig Sales, 2017, 2012.



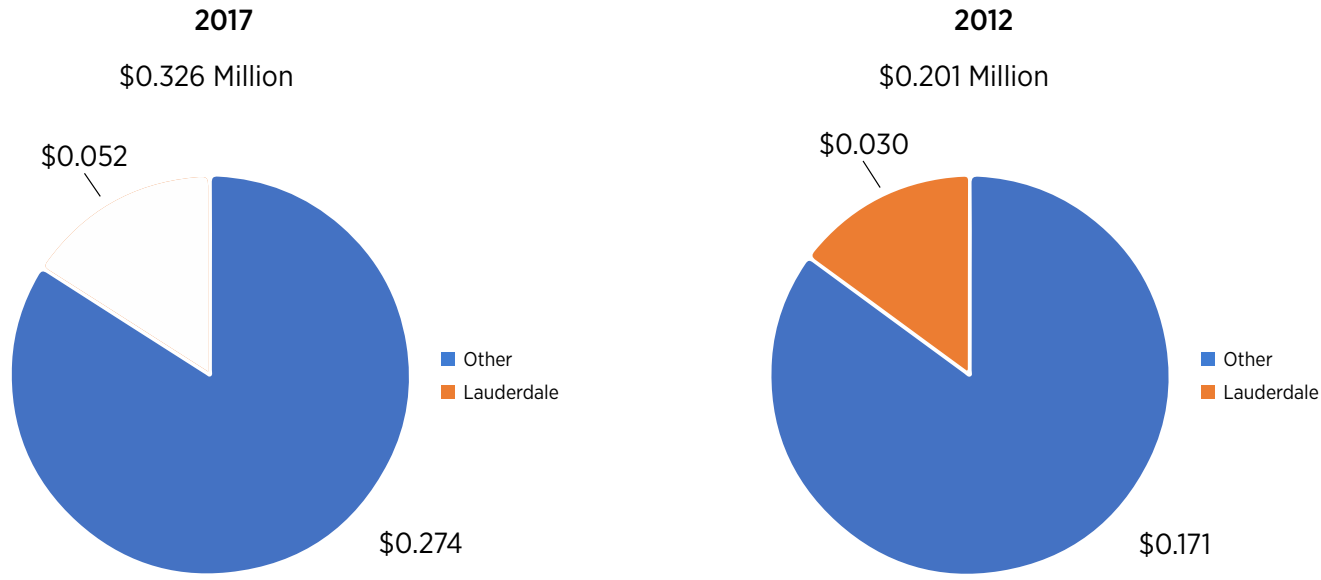
Source: *Census of Agriculture, 2012, 2017.*

Figure 13. Value of Regional Poultry and Egg Sales, 2017, 2012.



Source: *Census of Agriculture, 2012, 2017.*

Figure 14. Value of Regional Sheep and Goat Sales, 2017, 2012.



Source: *Census of Agriculture, 2012, 2017.*

Asian Carp Processing Facility

Asian carp are invasive fish characterized as voracious eaters and prolific reproducers (Cogan Carp Solutions, 2022) and are a major and growing problem in the Mississippi River system and elsewhere. They reduce the number and size of native fish. Numerous government and non-government agencies in Canada and the United States (including the Tennessee Valley Authority and the Tennessee Wildlife Resources Agency) are working together to manage the population; however, Asian carp have uses in current and developing markets as bait, pet food and fertilizer. The fish could even be processed for human consumption, as experts indicate it is tasty and healthy (low in mercury and rich in protein and omega-3 fatty acids). The Illinois Department of Natural Resources was supposed to introduce a new name for Asian carp this past summer in order to enhance the appeal of the fish for human consumption (Matheny, 2021). Such renames are a common practice for fish; for example, Chilean sea bass were originally called Patagonian toothfish. Several businesses in the Peoria, Illinois, area (Sorce Freshwater Company, 2022, and Colgan Carp Solutions, 2022) are supposed to process, in the middle of processing, or in the future process Asian carp for various markets.A first step would be to determine feasibility of establishing an Asian carp processing business. The Tennessee Department of Natural Resources and other appropriate agencies should be helpful assessing the feasibility of a carp processing and/control facility for Lauderdale County.

Cottonseed Processing Plant

Another opportunity is the development of a cottonseed processing plant. It is cost prohibitive to ship cottonseed from Lauderdale County to feedlots due to shipping costs. Of course, the large amount of county acreage in the region would be an advantage. Typically, cottonseed provides 10-15 percent of cotton grower income. Products from cottonseed processing include linter (8 percent), one of the finest sources of cellulose, plastics, paper and with many uses in cosmetics; crude oil (16 percent) that is used in making snack foods, salad dressings and stir frying or baking applications usually by food processors; and hulls (27 percent), which are an energy source for animal feed and meal (45 percent), high-protein animal feed supplement (National Cottonseed Products Association, 2022). Serving as a feedstock for bioenergy production is another possible use of cottonseed (Isci and Demirer, 2007). Analysis of U.S. oilseed processing facilities showed an increase in the number of such facilities from 155 in 1989 to 189 in 2019 (U.S. Census Bureau, 2022b). Our analysis of facilities by size indicated that smaller facilities have a respectable survival rate. Compared to all U.S. businesses, oilseed processing has a relatively low rate of return (at 21 percent in comparison to the overall national average) but performs moderately well in terms of loan failure (better than 58 percent of all U.S. businesses) (IndustriusCFO, 2022). The next step for this opportunity would be to investigate a feasibility business plan study.

Branded Beef Program

Another opportunity that could increase local producer income and grow the local agricultural economy would be a regional branded beef program. In such a program, meat is labeled as being grown from a particular area. Research has indicated that consumers would be willing to pay for Tennessee Certified Beef (Merritt et al., 2018); therefore, we suggest that an effort be made to develop such a program for beef grown throughout Tennessee and not just Lauderdale County. The Kentucky Cattlemen's Association Ground Beef Program, a branded ground beef program started in 2018, has apparently been quite successful with product in 174 grocery stores and several foodservice outlets (Kentucky Department of Agriculture, 2022). The Kentucky program could serve as a guide for developing a similar Tennessee based effort. We suggest approaching appropriate personal in the Tennessee Department of Agriculture and the Tennessee Cattlemen's Association as a next step. A Tennessee Meat Processing Association is in the process of being formed and would be another group to involve in the process.

Ripley Tomatoes

Regional and local foods where a given crop has an identity tied to a particular area are becoming increasingly popular. Consumers' preference for local foods often means enhanced farm sales and income as well as local economy growth. Meeting attendees suggested developing Ripley-grown tomatoes as a potential local food that could bolster local vegetable production and the county economy.

Grainger County tomatoes are a success story in eastern Tennessee that could be emulated. Grainger County has 70 tomato growers with over 650 greenhouses and 475-500 acres of production (Stroop, 2017). The Food City grocery store chain in that part of the state (Wikipedia, 2022) has promoted the tomato in its marketing efforts. The Grainger County Tomato Festival ran for 27 consecutive years before the COVID-19 pandemic (DeVoe, 2020). In addition, the Ripley Tomato Festival has run for over 36 years. Ripley tomatoes could also be promoted through the Pick Tennessee Products Program (Tennessee Department of Agriculture, 2022a).

An initial step in project's implementation would be to talk with the UT Extension agricultural agent and other local leaders in Grainger County. Research should also be conducted regarding any interest by regional grocery stores or other food vendors to gauge their interest in Ripley tomatoes. A funding proposal submitted to the U.S. Department of Agriculture's Agricultural Marketing Service Local Food Promotion Program (LFPP) could be used to support the development of appropriate marketing materials and earn the cooperation of local farmers among other tasks (Agricultural Marketing Service, 2022).

Agricultural Technology and Training

Within most industries, new technologies are beginning to transform agriculture in a major way. Meeting attendees indicated that providing training for area students in the use of new agricultural technologies such as drones and new uses of computers could be very beneficial for local agriculture and the local economy. As attendees pointed out, such efforts could be tied to training efforts that will be conducted to support the nearby Ford Motor Company Blue Oval City Project (Stockard, 2021).

The University of Tennessee at Martin (UT Martin) (2022) and the Tennessee College of Applied Technology at Crump have a new joint program in farming operation technology that could be expanded in order to implement this opportunity. The certificate-based program will provide 30 hours of courses that will expose students to principles in agriculture, livestock equipment and precision agriculture. We foresee expanding the precision agriculture component as a way to implement this opportunity. It would also be very useful to integrate this program with training efforts being used to support the Ford project. A major player should be the Greater Memphis Local Workforce Development Agency (LWDA) Area 9 under the Tennessee Department of Labor and Workforce Development (2022a, 2022b). This organization is the funnel for federal workforce training dollars in the region. While agriculture has generally been ignored in such training efforts, changes in the structure of agriculture and the greatly enhanced need for workforce training in the region provide a real opportunity for implementing a new agriculture technologies training program. We recommend approaching the Tennessee Department of Labor and Workforce Development and officials at UT Martin as a first step in implementing this opportunity.

Large Animal Veterinarian

The lack of a large animal veterinarian in Lauderdale or surrounding counties is a real need and an opportunity. Several approaches could be taken in an attempt to solve this problem. Only 8 percent of all U.S. veterinarians are exclusively or primarily large animal, so the shortage of large animal vets is a national issue. A practice can be lucrative, but expenses in general and student debt in particular are major issues, with average debt for a graduating veterinary student estimated at over $183,000 in 2018 (Marquit, 2020). Eight states (including Georgia) have loan repayment assistance programs to attract professionals to shortage areas which are usually rural communities that require a large animal veterinarian. The U.S. Department of Agriculture has the Veterinary Medicine Loan Repayment Program (VMLRP) that will pay up to $25,000 each year toward qualified educational loans of eligible veterinarians who agree to serve in a designated veterinarian shortage area for a period of three years (National Institute of Food and Agriculture, 2022a). Shortage areas are based on annual nominations by State Animal Health Officials and center on services for food animals. Tennessee currently has three shortage areas (the closest to Lauderdale County covers Henry, Benton, Houston, Montgomery and Stewart counties) (National Institute of Food and Agriculture, 2022b).

To solve this issue, a first step would be to contact the VMLRP program officers (access is provided in the reference link for National Institute of Food and Agriculture, 2022a). Subsequently, local leaders could contact the State of Tennessee's Veterinarian Office regarding their region's nomination as a shortage area. Analysis also needs to be

conducted with appropriate personnel with the University of Tennessee College of Veterinary Medicine to answer the questions of whether there is sufficient demand in the Lauderdale County region to support a large animal veterinarian and whether a student from their program could be recruited into the area. A long-term solution could be to start a Tennessee loan repayment program similar to the one currently in operation in Georgia. Finally, UT Martin and the Weakley County Farmers Co-Op have recently agreed to fund a large animal veterinarian who will provide services in Weakley County (UT Martin, 2021). Local leaders could approach their local agricultural cooperative and UT Extension about creating a similar joint position that would provide such services to Lauderdale and surrounding Tennessee counties.

Further Data Analysis

The target industry cluster approach was also applied to existing industries to identify possible assets for further development. Based on our criteria, we evaluated relevant food processing, wood product, paper product and furniture manufacturing sectors for further development in Lauderdale County. The sectors with the most promise for growth across all agricultural processing and input industries based on our data analysis are shown in Table 1. Full results from the analysis are provided in Appendix A; the number of criteria met by the industry in question are provided in parentheses such as the 4.75 for a distillery. Valued added food product processing that has potential for growth included sugar cane mills and refining (4.75); nonchocolate confectionery manufacturing (4); dry, condensed and evaporated dairy product manufacturing (4); frozen cakes and other pastries manufacturing (4); mayonnaise, dressing and sauce manufacturing (5); and a distillery (4.75). The distillery is especially interesting because it would be part of a rapidly growing state industry that uses a significant amount of Tennessee crops such as corn (which is plentiful in the Lauderdale County area). Valued-added wood product processing and agricultural input production that has the potential for growth include fertilizer mixing (3.75), wood container and pallet manufacture (4), prefabricated wood building manufacturing (4), and paper bag and coated and treated paper manufacturing (4). These possible targets were added to the list for consideration for further development by local agricultural leaders.

Table 1. Most Promising Sectors for Growth in Lauderdale County Based on Data Analysis.

Sector	Number of Check Marks
Mayonnaise, dressing, and sauce manufacturing	5
Distillery	4.75
Sugar cane mills and refining	4.75
Nonchocolate confectionery manufacturing	4
Dry, condensed, and evaporated dairy product manufacturing	4
Frozen cakes and other pastries manufacturing	4
Wood Container and pallet manufacture	4
Prefabricated wood building manufacturing	4
Paper bag and coated and treated paper manufacturing	4
Fertilizer mixing	3.75

Source: *Analysis of IMPLAN and IndustriusCFO data by authors.*

Opportunity Zone

The Opportunity Zone Program is a capital gains tax reduction program where realized capital can be invested in real estate projects and businesses in qualified areas. (The invested funds are taxed at a lower rate and capital gains from appropriate investments receive major tax breaks.) An Opportunity Zone is an economically distressed community where such private investments can be made. There are 8,760 designated Qualified Opportunity Zones including a block in Lauderdale County as shown in Figure 15 (U.S. Department of Commerce, 2022).

Figure 15. Lauderdale County Opportunity Zone

Source: *Department of Commerce.*

An example of how funding from the program can be used to support development of a targeted industry can be found in Hampton County, South Carolina, where a 1,000-acre agriculture technology campus is being established with a $134 million investment. The campus will include greenhouses for locally grown, pesticide-free tomatoes, leafy greens, blueberries and other produce; a 150,000-square-foot distribution center; and a packing facility (South Carolina Department of Commerce, 2020). This effort can serve as a role model for an agribusiness development project in the Lauderdale County Opportunity Zone; for example, it could be employed in implementing the Ripley tomato concept. An offshoot of the opportunity zone program is the Bioeconomy Development Opportunity Zone (BDOZ), a program that identifies areas in the best position for what is termed low-risk bioeconomy projects (such as wood-based jet fuel production). An area in Oregon and an area in South Carolina have both received BDOZ designation (Solomon, 2021). Perhaps a BDOZ designation could be used to support development of the forest products industry in Lauderdale County.

Targets Identified by Local Agricultural Leaders

The group of Lauderdale County Agricultural Leaders reconvened on February 18, 2021. A presentation was made regarding the information that had been ascertained regarding their suggestions and our secondary data analysis. Participants were asked to think about opportunities for the county such as local and regional markets and target areas as they pertain to local agriculture or agribusiness. Based on our presentations and discussions, the leadership group was asked to indicate the activities that had the greatest potential for helping to grow the local economy. They were also allowed to insert an option for consideration. Each individual was provided with three dots and told to distribute the dots as they wished. Table 2 provides a ranking of the various potential targets based on the local leaders' votes.

Table 2. Rank of Targets Identified by Lauderdale County Agricultural Leaders.

Potential Target	Number of Target Votes
Large Animal Veterinarian	9
Bridge over Mississippi at Fort Pillow	6
Asian Carp Control, Processing	3
Branded Beef Program	3
Agricultural Technology Training	2
Oil Seed Processing Facility	1

Moving Forward

Provided here are the results of an agricultural mapping exercise conducted with local agricultural leaders in Lauderdale County Tennessee in cooperation with the University of Tennessee County Extension Office. Results were based on a combination of our analysis of secondary data and primary data provided by the local leaders. Based on the distribution of votes in Table 1, the decision was made to pursue four possible avenues of further growth, including hiring and retaining a large animal veterinarian and building a bridge over the Mississippi River at Fort Pillow. An Asian carp control and processing facility project and a branded beef project were also identified as priorities. It is recommended that local subcommittees be formed to further investigate the possibility of moving forward with the ground projects in each of these four areas. These efforts could take advantage of state tax credits and a variety of grant programs through the Tennessee Department of Economic and Community Development, the Tennessee Department of Agriculture, Agriculture Enterprise Fund (2022b) or the U.S. Department of Agriculture Rural Development Tennessee Office. It is recommended that a meeting be held with representatives of such organizations in the near future to explore relevant opportunities.

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