

**Economic Impact of the T. Ed Garrison Arena on Anderson, Oconee,  
and Pickens Counties, South Carolina**



by  
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## Abstract

Equine based economic activity plays a major role in the Upstate area of South Carolina as well as in the rest of the state. Livestock arenas have the potential for generating significant economic activity based on equine and other types of activities. This study provides estimates of the economic impact of one such facility, the T. Ed Garrison Arena, on the local (i.e., Anderson, Oconee, and Pickens Counties) economy based on extensive surveying of individuals attending Arena events. The three county area is a center of the equine industry in South Carolina, responsible for over 13% of all horses in the state according to a study conducted in 2004. Also included in the analysis is the economic impact of the 50 mile Fant's Grove trail riding system that is part of the Arena complex. To capture the economic impact, attendants at 12 Arena events and users of the trail system were surveyed concerning their spending in the local economy. On-site spending was concentrated in show fees and stall fees while off-site spending was concentrated in lodging, restaurants, and groceries. Results from the 12 events were matched to 52 events in the 2012 calendar year to arrive at a direct annual economic impact of \$4.381 million (i.e., on-site and off-site spending that occurred because people attended Arena events).

The impact analysis relies on a multiple-region Input-Output (I-O) model of the local economy (with formal feedback links to the Greenville County economy). The model was constructed using the IMPLAN input-output economic model building computer program for 2009 (IMPLAN 2000). This multiplier model is used to estimate how many times the direct spending circulates in the local economy.

Model results indicate that the Arena makes a substantial contribution to the local economy with \$8.957 million in total economic impact. Specifically, the \$4.381 million in direct spending leads to 92.4 local jobs, \$2.776 million in local earned income, and \$4.440 million in Gross Regional Product. A typical dollar spent directly on Arena activities lead to \$2.04 of total economic activity in the local economy. Study results also indicate that the vast majority of spending on both equine and non-equine events at the Arena was by individuals living outside of the three county area.

An evaluation was also conducted of similar facilities within a two hundred miles radius of the Arena in terms of infrastructure and events. The T. Ed Garrison Arena has a relatively strong showing for regional impact equine shows relative to the other facilities with slightly less high impact shows.

Through analysis of comparison facilities and the impact of specific shows throughout the year, it is evident that the T. Ed Garrison Arena is a first class facility with potential to grow. If the arena builds appropriate outdoor show rings and facilities in addition to what currently is present, the T. Ed Garrison Arena could greatly expand the number of hosted state/regional and high

impact shows resulting in a significant increase in the economic impact on Anderson, Pickens, and Oconee counties.

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## **Introduction**

Equine based economic activity plays a major role in the Upstate area of South Carolina as well as in the rest of the state. According to a Census conducted in 2004 (SC Field Office, USDA-NASS), 84,300 equine were in the state at that time. Anderson County ranked second in the state with 6,000 equine, Pickens County was tenth among state counties with 2,700 equine, followed closely by Oconee County with 2,400 equine. Together the three counties were responsible for an estimated 13.2% of all South Carolina equine.<sup>1</sup>

Livestock arenas have the potential for generating significant economic activity based on equine and other types of activities. One such facility is the T. Ed Garrison Arena, a facility owned and operated by Clemson University in Anderson County and very close to both Pickens and Oconee Counties. The facility also includes the Fant's Grove Trail System. This extensive horse riding system consists of 50 miles of trails in Anderson and Pickens Counties. According to their website, "The T. Ed Garrison Arena ... is recognized as one of the premier multi-purpose livestock facilities in the Southeast. The Arena is South Carolina's only full service, public facility designed to promote the state's livestock industry". The South Carolina Upstate Equine Council (SCUEC) is a non-profit, volunteer based organization that, according to their website "wishes to become a magnet in the Upstate for all equine activities, and through the participation of spectators, vendors, and equestrian participants to positively impact the education and growth in the Upstate area". As part of this mission, the SCUEC wishes to promote equine and other activities based at the Garrison Arena. Accordingly, the SCUEC commissioned a study, the results of which are reported here, to estimate the economic impact of the activities at the Garrison Arena on the surrounding three counties economic (Anderson, Oconee, and Pickens). Further, the SCUEC wished to examine the nature of arenas in South Carolina and nearby states offering similar services to groups and individuals wishing to host equine and other livestock shows. Finally, the SCUEC wishes to learn about riders' use of trails next to the Garrison Arena that are located on the Clemson University Experimental Forest Property.

To achieve these goals, a survey instrument was developed and administered to numerous Garrison Arena show participants. Further, reported here is information concerning size, mission, activities, and when possible costs and revenues of similar livestock arenas. Finally, data was obtained and reported here concerning the Fant's Grove Trail System, including a survey of trail system users. Survey data for the Garrison Arena and the trail system were used to generate an estimate of the local (Anderson, Oconee, and Pickens Counties) economy, based on an economic model of that economy. Our analysis indicates that the Garrison Arena has a substantial impact on the local economy.

## **Event Surveys**

### *Survey Method*

Survey data was used to estimate the total economic impact of the Arena on the local economy. A simple survey was developed based on our review of the literature (Appendix, Table 1).

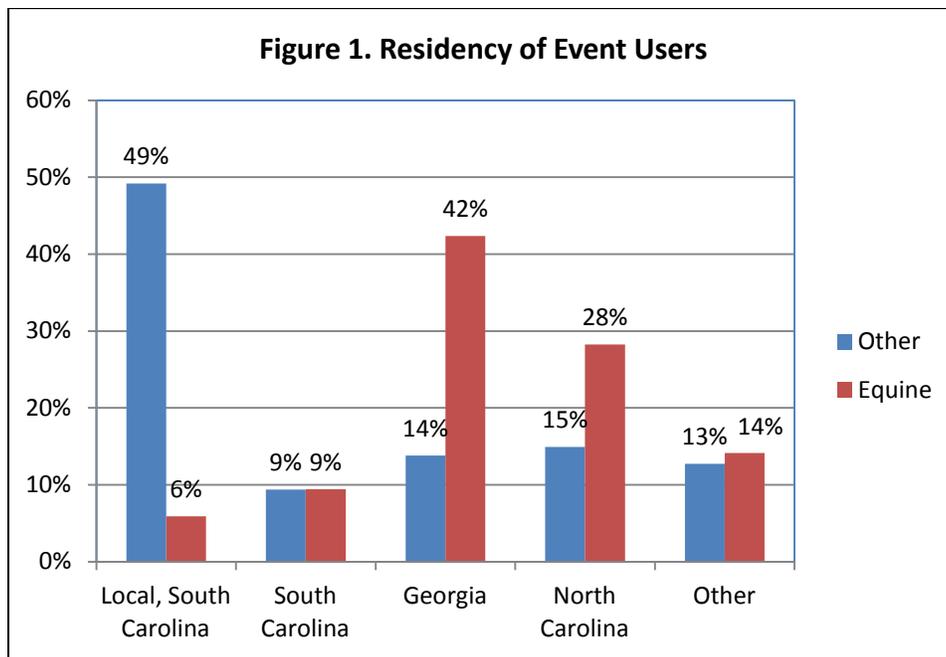
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<sup>1</sup> According to a study conducted by the American Horse Council, South Carolina had 94,800 horses in 2005.

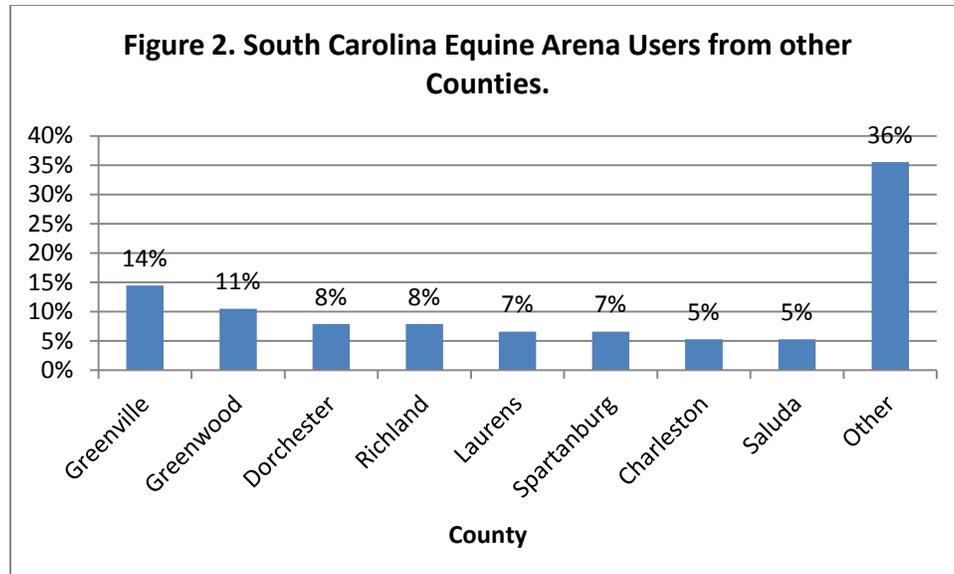
Participants at twelve different shows ranging from November 2011 to July 2012 were surveyed with the goal of estimating their spending on various items in the local economy as a result of participating in activities at the Arena (Appendix, Table 2). In addition, trail riders at the facility were also surveyed during the weekend over the period June 16 through July 22, 2012 and online during that same period.

### Survey Results

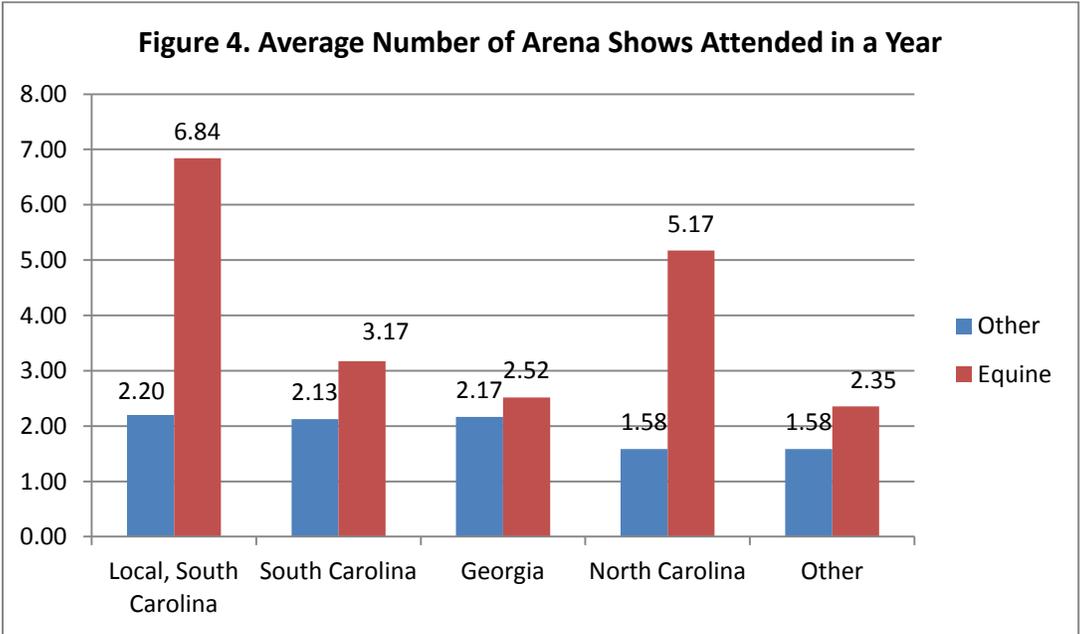
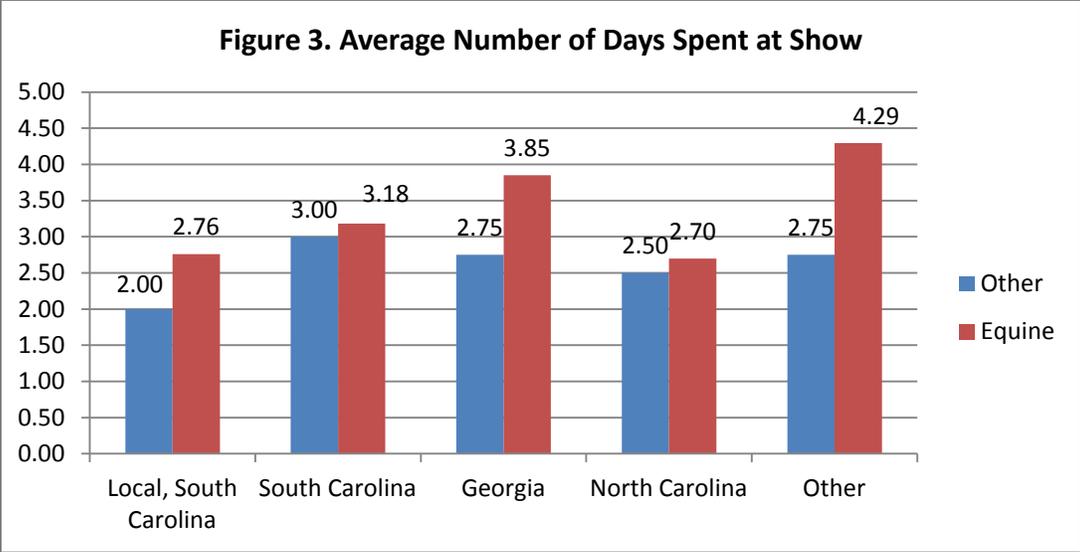
Survey results are reported for three separate groups. First, results are presented for all surveyed equine events (except one event sponsored by the SCUEC). An additional set of results are reported for surveyed non-equine show events (dog and cattle shows). Finally, results for the SCUEC event are also reported.

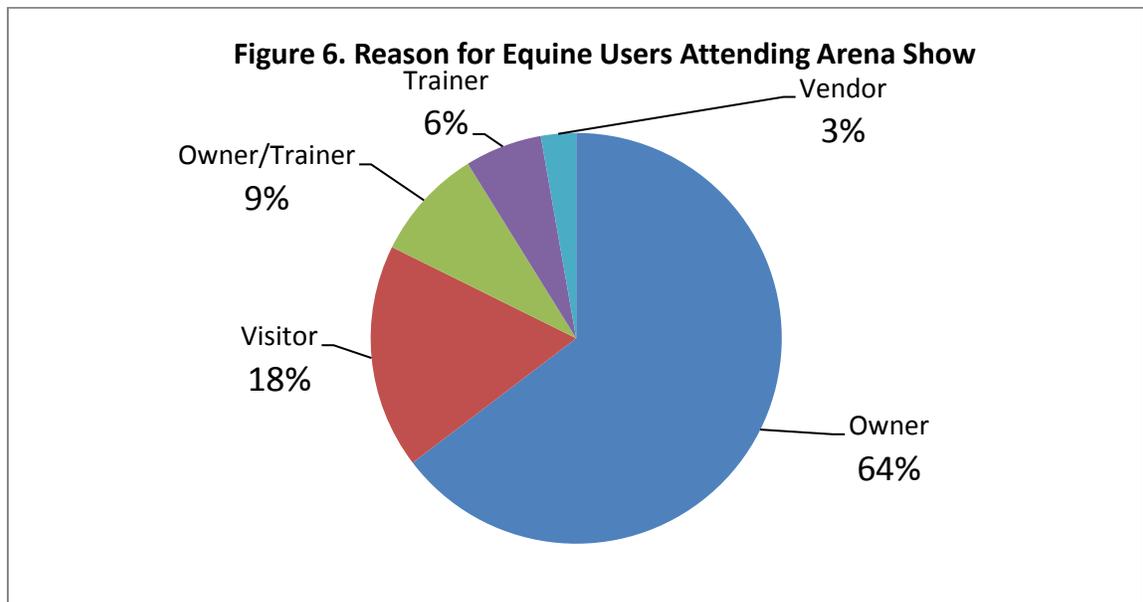
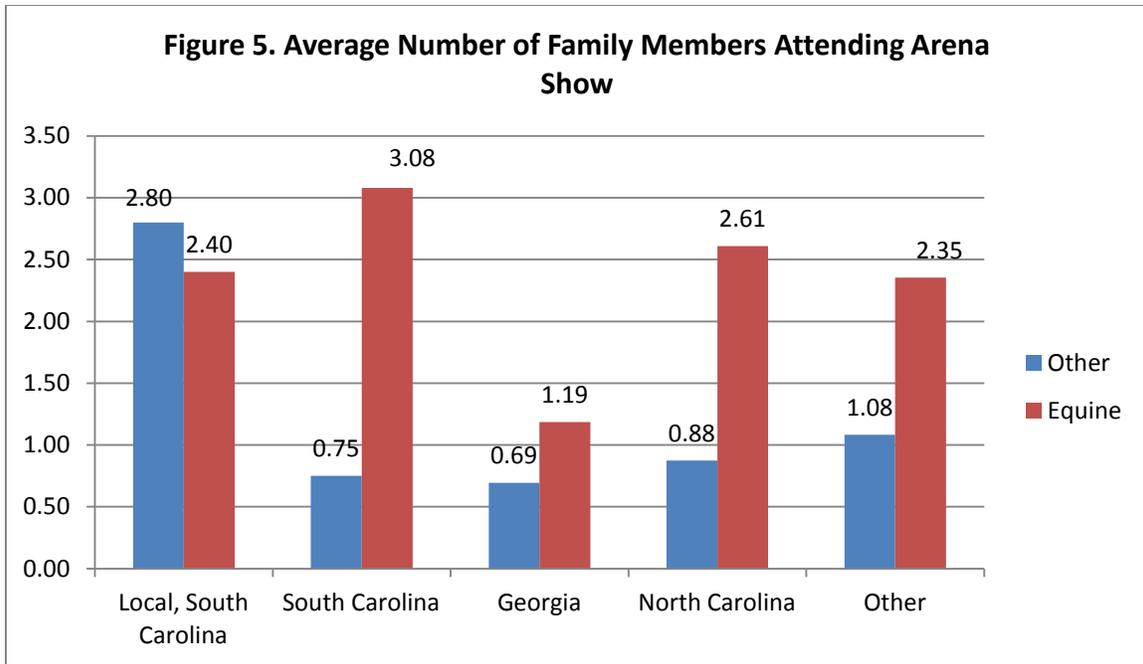


We delineated the 181 survey respondents in the equine events category based on residency. This breakdown is done in part because more distant travelers are expected to have higher levels of spending and also to indicate arena market penetration by location. The residency of equine survey respondents is shown in Figure 1. Among this set of survey respondents, 49% were from other places in South Carolina, 14% were local (i.e., from Anderson, Pickens, or Oconee Counties), 15% from Georgia, 13% from North Carolina, and the remaining 9% from other states. Among other places in South Carolina, survey respondents were concentrated in Greenville County (14%), Greenwood County (11%), Dorchester County, Richland County, and Laurens County (Figure 2).



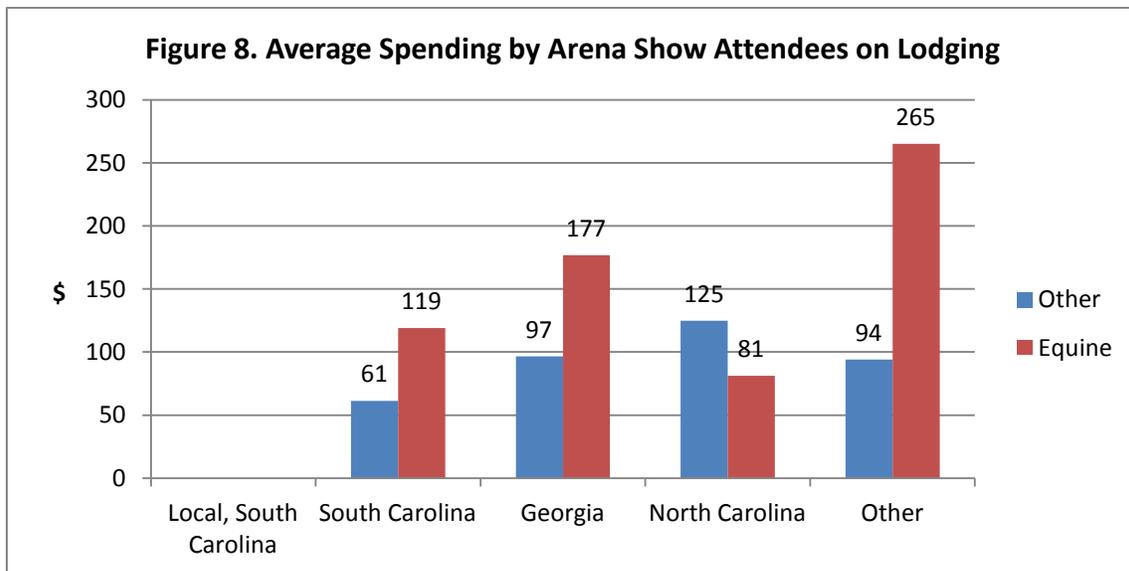
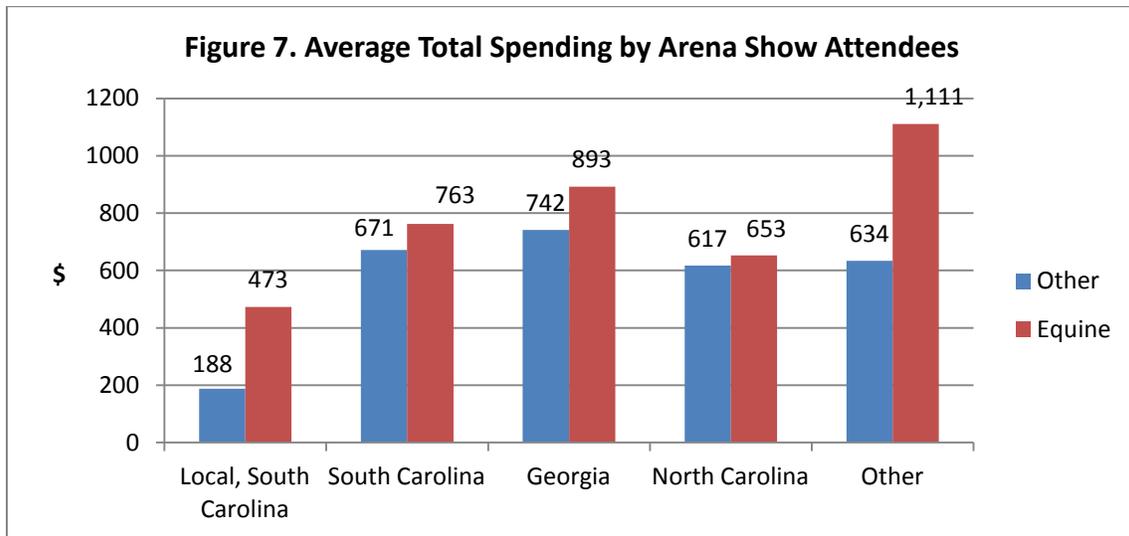
In terms of number of days spent at the show, respondents from other states spent an average of 4.29 days, respondents from Georgia spent on average 3.85 days while attendees from the rest of South Carolina on average spent 3.18 days at the show (Figure 3). Not surprisingly, local arena users were the most frequent annual users of the Arena attending an average of 6.84 shows in a year (Figure 4). Perhaps surprisingly, respondents from North Carolina were the second frequent users attending on average 5.17 shows per year. All groups indicated on average repeat use of the Arena with respondents from the more distant states on average attending 2.35 shows per year. Residents from the rest of South Carolina had the largest average number of family members in attendance at the show (3.08) followed by North Carolina (at 2.61) and local show attendees (2.4) (Figure 5). Survey respondents were also asked the reason for attending the show (owner, owner trainer, trainer, visitor, or vendor). As shown in Figure 6, the majority of respondents (117 or 64%) indicated they were horse owners, 32 (18%) respondents were visitors, followed by owner-trainers (16 or 9%), and trainers (11).

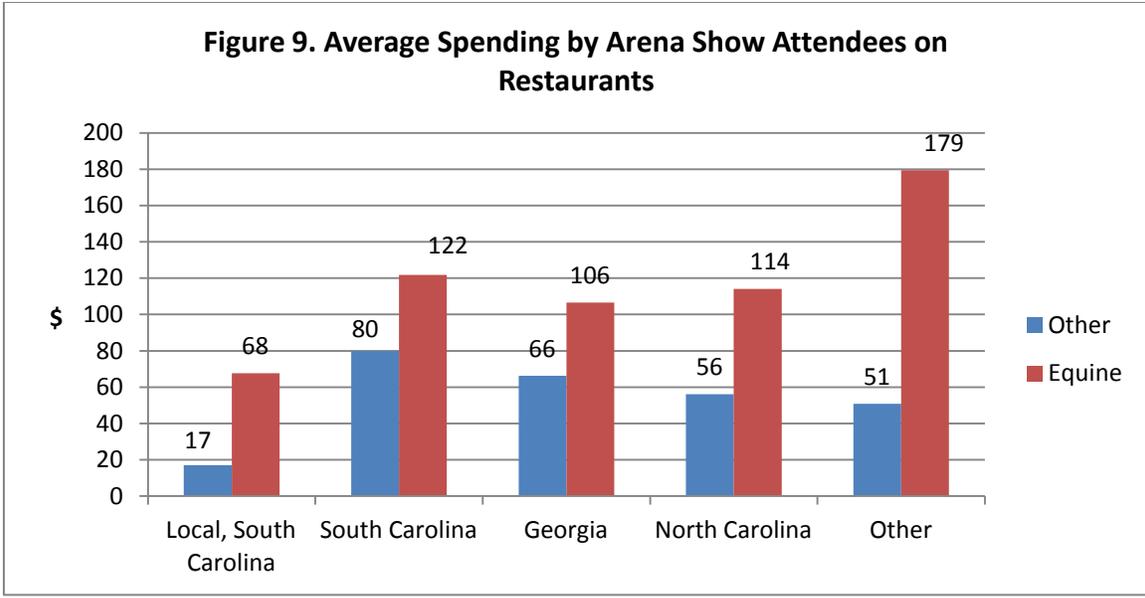




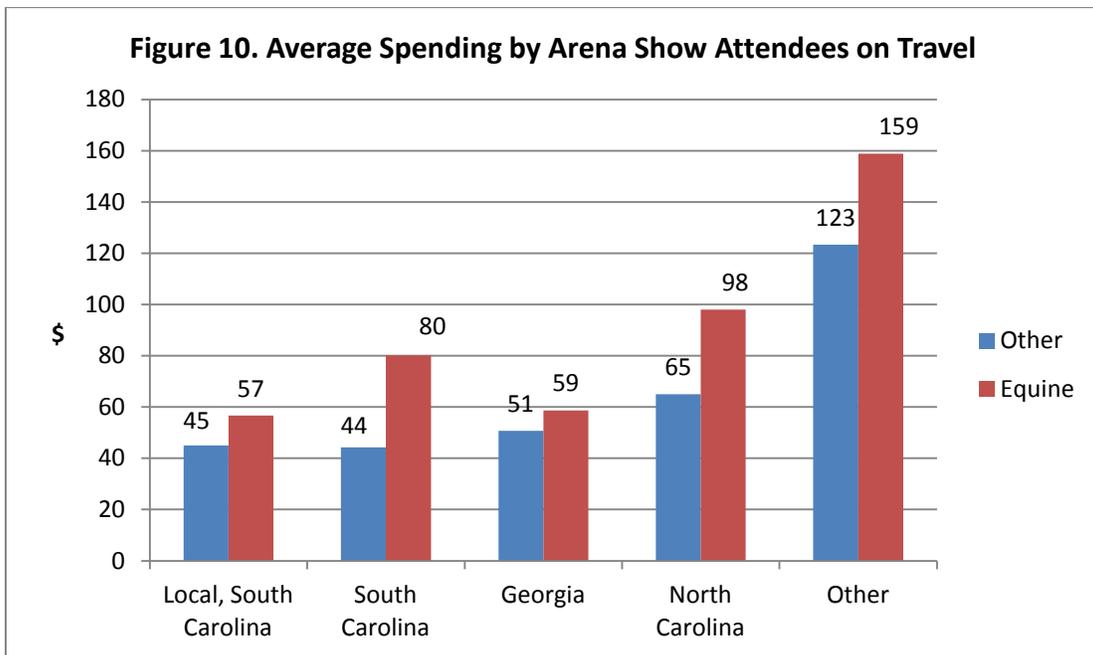
As expected, people traveling longer distances to Arena events tended to spend more in the local economy. Survey respondents from other states spending on average \$1,111.35 in the local economy for the event they attended or well over twice the spending by local attendees (\$473.48) (Figure 7). Show attendees from Georgia spend on average \$892.63 in the local economy followed by those from the rest of South Carolina (\$762.74) and North Carolina (\$652.87). Spending on particular activities also fit a-priori expectations. Survey respondents from other states spent an average of \$265.00 on lodging, followed by \$176.78 by respondents from Georgia, \$118.94 by those from the rest of South Carolina, and \$81.17 on average by show attendees from North Carolina (Figure 8). Survey respondents from other states spent an average

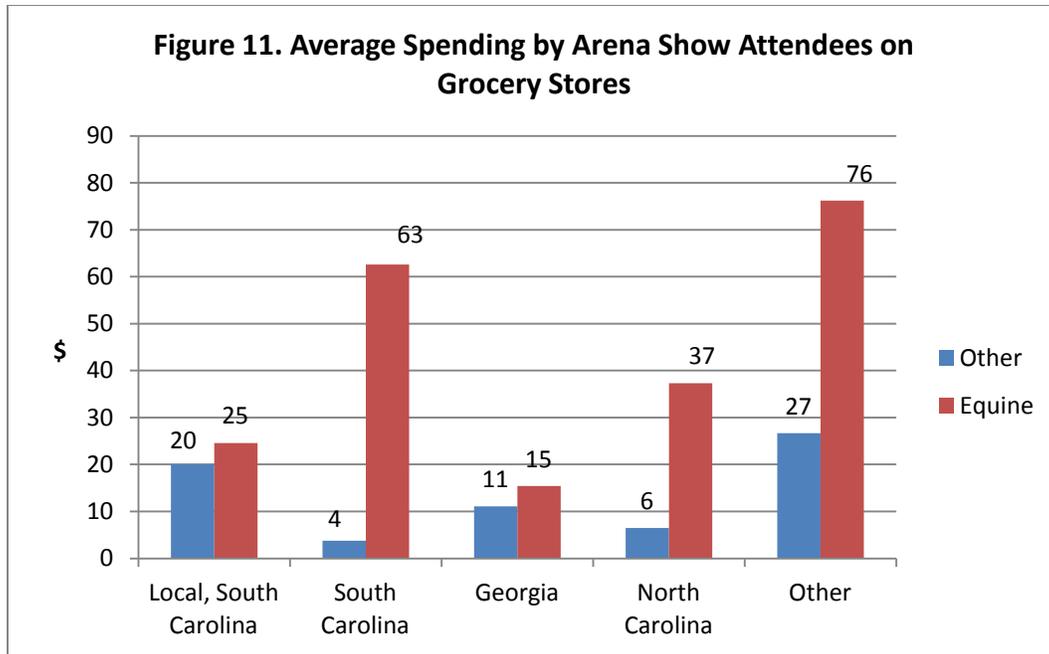
of \$179.41 at local restaurants, followed by \$121.82 by those from the rest of South Carolina, \$114.13 on average by show attendees from North Carolina, and \$106.48 by respondents from Georgia (Figure 9).





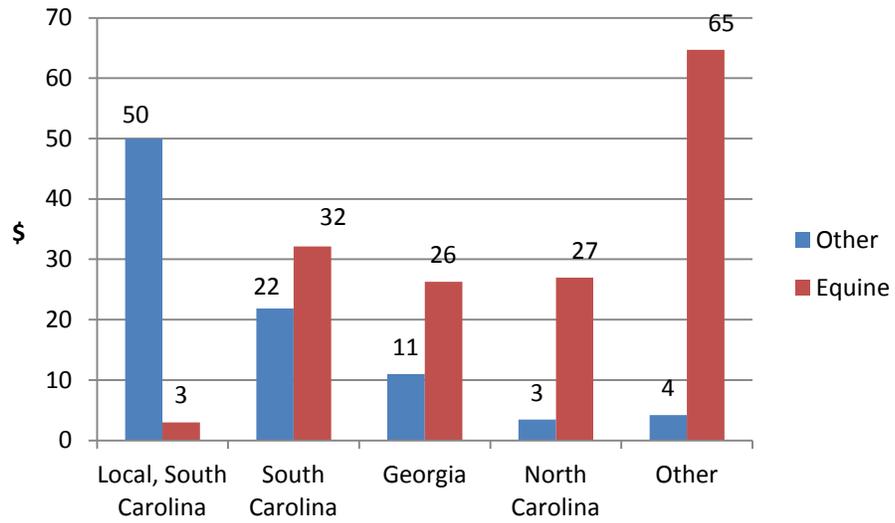
In terms of local spending on travel (fuel and other expenses), survey respondents from other states spent an average of \$158.82, followed by \$98.04 on average by show attendees from North Carolina, \$80.12 by those from the rest of South Carolina, \$58.70 by respondents from Georgia, and \$56.68 by local attendees (Figure 10). In terms of average spending at local grocery stores, survey respondents from other states spent an average of \$76.24, followed by \$62.60 by those from the rest of South Carolina, \$37.35 on average by show attendees from North Carolina, \$15.40 by respondents from Georgia, and \$24.60 by local attendees (Figure 11).



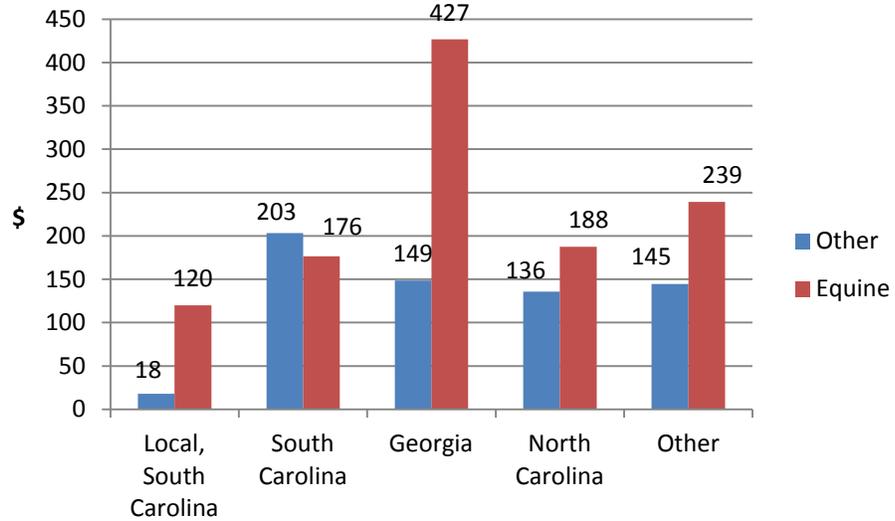


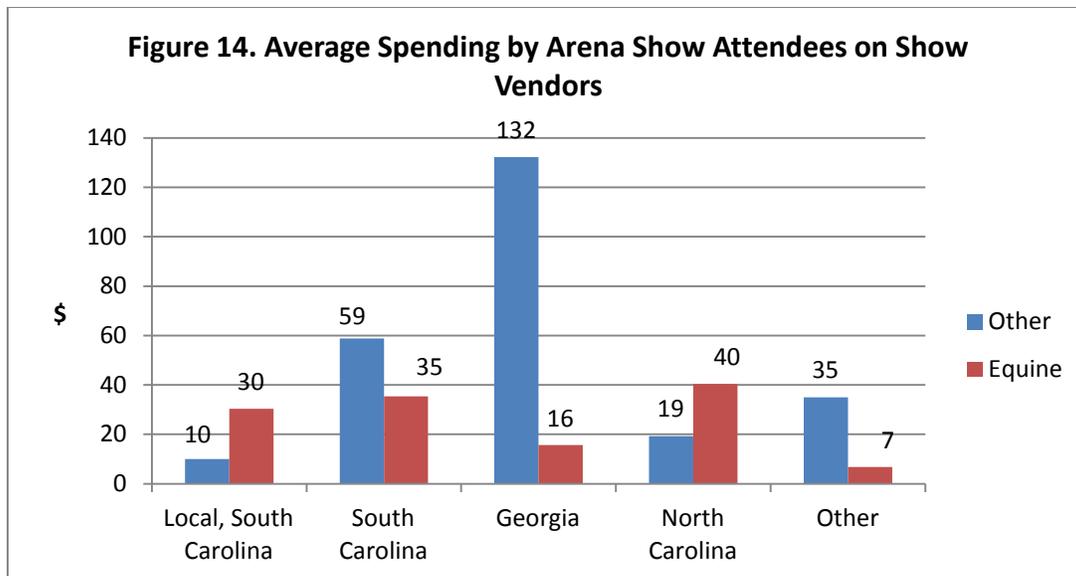
In terms of average spending on shopping, survey respondents from other states spent an average of \$64.71, followed by \$32.13 by those from the rest of South Carolina, \$26.96 by attendees from North Carolina, and \$26.30 by respondents from Georgia (Figure 12). Survey respondents from other states spent an average of \$239.06 on show fees, behind the average of \$426.67 by those from Georgia, \$187.57 on average by show attendees from North Carolina, \$176.47 by respondents from the rest of South Carolina, and \$120.00 on average by local residents (Figure 13). In terms of the average amount of purchases from vendors at Garrison Arena, survey respondents from North Carolina spent an average of \$40.43, followed by those from the rest of South Carolina (\$35.43), local residents (\$30.40), and Georgia (\$15.63) (Figure 14).

**Figure 12. Average Spending by Arena Show Attendees on Shopping**



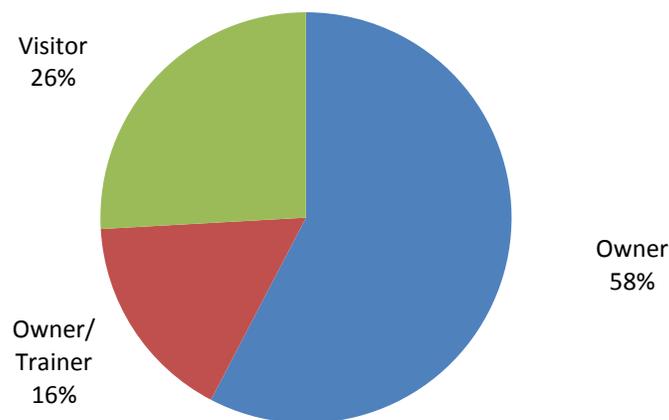
**Figure 13. Average Spending by Arena Show Attendees on Show Fees**





We also delineated the 85 survey respondents attending non-equine events (dog and cattle shows) category based on residency. The residency of this group of event survey respondents is shown in Figure 1. Among this set of survey respondents, 10% were from other places in South Carolina, 6% were local, 42% from Georgia, 28% from North Carolina, and the remaining 14% from other states. In terms of number of days spent at the show, respondents from other states and from Georgia both spent an average of 2.75 days, respondents from North Carolina spent on average 2.50 days, while attendees from the rest of South Carolina on average spent 3.00 days at the show (Figure 3). There was little difference in frequency of Arena use across the residency groups (Figure 4). Local residents indicated they attended an average of 2.20 shows in a year closely followed by rest of South Carolina (2.13), Georgia (2.17), and with North Carolina residents and individuals from other states both indicating average Arena use of 1.58 shows per year. As shown in Figure 5, local residents had the largest average number of family members in attendance at the show (2.80) followed by residents of all other states (1.08) and North Carolina (at 0.88). The majority of respondents (49 or 57.6%) indicated they were dog or cattle owners, 14 (16.5%) respondents were owner-trainers, while 25.9% of respondents (22) were visitors (Figure 15).

**Figure 15. Reason for Non-equine Attending Arena Show**



With the exception of local residents, the residents from different areas showed only slight differences in total spending. Survey respondents from all other states spending on average \$634.25 in the local economy for the event they attended (Figure 7). Show attendees from Georgia had the largest level of average spending (\$741.56) in the local economy followed by those from the rest of South Carolina (\$671) and North Carolina (\$616.71). Spending on particular activities tended to fit a-priori expectations. Survey respondents from North Carolina spent an average of \$124.88 on lodging, followed by \$96.50 by respondents from Georgia, \$94.17 by those from all other states, and \$61.25 by those from the rest of South Carolina (Figure 8). Survey respondents from the rest of South Carolina spent an average of \$80.00 at local restaurants, followed by \$66.28 by those from Georgia, \$56.05 on average by show attendees from North Carolina, and \$50.92 by respondents from other states with only a small amount of spending by local residents (Figure 9). In terms of local spending on travel (fuel and other cost), survey respondents from other states spent an average of \$123.33, followed by \$65.00 on average by show attendees from North Carolina, \$50.69 by respondents from Georgia, and \$44.25 by those from the rest of South Carolina (Figure 10). In terms of average spending at local grocery stores, survey respondents from other states spent an average of \$26.67, followed by local residents (\$20.00), \$11.11 by respondents from Georgia, and \$6.46 on average by show attendees from North Carolina (Figure 11). In terms of show fees (Figure 13), residents from the rest of South Carolina spent an average of \$203.38 at the Garrison Arena, followed by residents of Georgia who spend on average \$148.67, all other states (\$144.67) and North Carolina (\$135.58). In terms of average purchases from vendors, survey respondents from Georgia spent an average of \$132.22, followed by \$58.75 by those from the rest of South Carolina, residents of other states spent an average of \$35.00, \$19.33 on average was spent by show attendees from North Carolina, and \$10.00 by local attendees (Figure 14). Local survey respondents spent an average of \$50.00 shopping, followed by \$21.88 by those from the rest of South Carolina, and \$10.97 for residents of Georgia (Figure 12).

A separate survey was also conducted of a Garrison Arena event sponsored by the SCUEC. Because participants are primarily local, results from the 70 respondents are examined separately from other survey results. Among survey respondents, (32 or 45.7%) indicated they were visitors, 31 (44.3%) respondents were horse owners, followed by owner-trainers (five or 7.1%), and trainers (two). Survey respondents indicated that on average 1.46 family members participated in the event and that on average they would participate in 2.85 events at the Garrison Arena on an annual basis.

A combination of on-line and in-person surveying was conducted of riders using the trail system adjacent to the Garrison Arena facility. Among the 66 survey respondents, on average 1.42 family members also participated in the trail ride. Riders indicated that on average they used the trail system 48.8 times per year. They also estimated that an average of 35.7 riders use the trail system on a typical day for an average of 250 riders on a weekly basis or almost 13,000 riders annually.

## **Impact Results**

### *Economic Impact Analysis*

The impact analysis relies on a multiple-region Input-Output (I-O) model of the three county (Anderson, Oconee, and Pickens) economy. Such models replicate purchasing and selling patterns between various parts of an economy in a detailed manner (Hughes, 2003). The model was constructed using the IMPLAN input-output economic model building computer program for 2009 (IMPLAN 2000). IMPLAN is a well-established tool for conducting impact analysis studies. Income injected into an economy has a multiplier effect, as it is re-spent locally. The degree of re-spending is determined by the degree to which local businesses and consumers buy from local businesses. “Impact analysis looks at the effects of a positive or negative change in economic activity. Impact analysis is based on economic multipliers, which account for the total effect across the entire economy of the event under study. For example, impact analysis is often used to estimate the effects of a new local industry on jobs and incomes in all parts of the economy. It is also used to estimate policy or investment impacts and the total contribution of an industry to an economy” (Hughes, 2003 p.25). In this case, our analysis concerns the total contribution of activity at the Garrison Arena on the local economy.

A multi-regional model is used here to allow for feedback loops to occur between the three-county economy and the Greenville County economy. The feedback loop with the Greenville County economy is included because of the very strong spatial economic linkages between Greenville and the three counties. Pickens County is in the Greenville Metropolitan Area as delineated by the U.S. Government Office of Management and Budget based on the strength of linkages between the two counties. Specifically, based on federal government guidelines, at least 25% of the resident workforce in Pickens County commutes into Greenville County to work. Further, Oconee and Anderson are also part of the Greenville-Spartanburg-Anderson Combined Metropolitan Statistical Area (CMSA), which are a set of MSAs also linked by economic and

social ties (BEA, 2012). Such spatial linkages justified the inclusion of our feedback mechanism.<sup>2</sup>

### *Calculation of Direct Spending*

Survey responses were used to estimate total direct spending in the local economy by individuals attending events at Garrison Arena. Direct spending is spending that occurred as a direct result of participation in events at Garrison Arena. Direct spending includes spending on goods and services at the Arena itself including show fees, stalls provided by the Arena, vendors located at the Arena, and other on-site spending. It also includes off-site spending on items and activities that occurred in the three-county area because of attendance at Arena events including spending at restaurants and on lodging, groceries, entertainment, general shopping, travel, vehicle and trailer repair, and veterinary and farrier services. Average total spending for respondents at each of the twelve surveyed shows were grouped based on statistical differences as determined by t-test results. All 52 events either held or to be held at Garrison Arena in calendar year 2012 were then assigned to each spending category. Data obtained from surveyed show managers were used to estimate number of attendees and number of stall renters to complete the profile of surveyed shows. Total spending by each spending cluster was then used to estimate total direct spending for all events at Garrison Arena in calendar year 2012. Stall fee data obtained from Garrison Arena management for calendar year 2011 and 2012 through June 20<sup>th</sup> were used to help confirm our spending estimate because stall fees is a specific spending category in our survey data. Based on these efforts, we estimated that activity at the Garrison Arena generates \$4.381 million in direct spending in the local economy.

Total direct spending (i.e., the \$4.381 million) was then “shocked through” the economic multiplier-based multiregional model of the local economy (with linkages to Greenville County) to provide our estimate of the total economic impact of Garrison Arena on the local economy. To conduct this analysis, specific spending taken from the survey data was assigned to specific local industries and in some cases to regional imports.

### *Economic Impact Results*

As shown in Table 3, the Garrison Arena has a significant economic impact on the local economy. This impact occurs despite the recent slowdown in the national, regional, state, and local economies, which has an especially strong impact on recreational-based activities such as equine. Besides employment, our analysis covers earned income, gross state product, and total industry output. Earned income is employee compensation, mostly in the form of wages and salaries, plus net returns or profits to proprietors (owner operators). Earned income is a major part of gross state product. Gross regional product includes return to capital in the form of corporate profits, and accounting measures of corporate profitability such as depreciation charges, in addition to earned income. Certain types of taxes, such as sales taxes and excise

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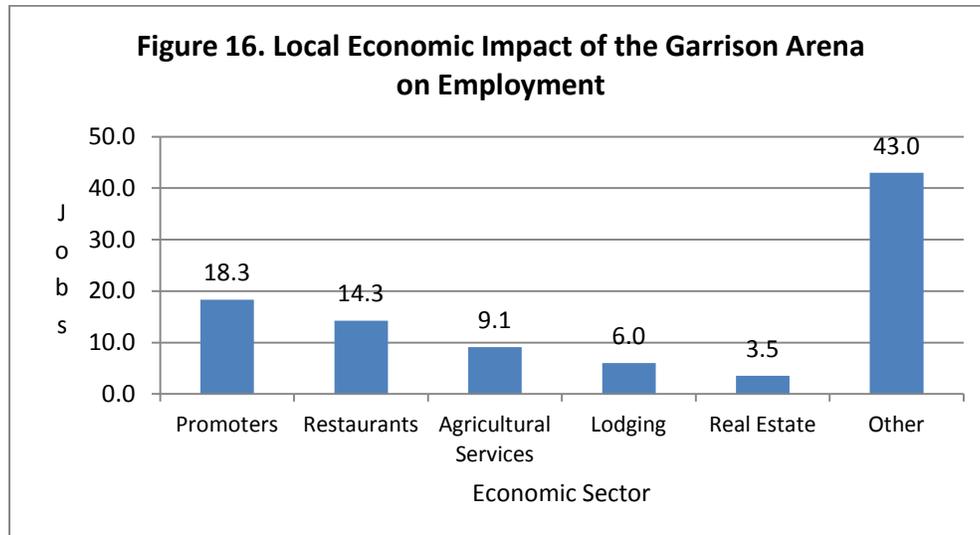
<sup>2</sup> For more detail on multiregional input-outputs models, see Hughes 2009. For the procedure IMPLAN uses to construct such models, see Lindall et al., 2006.

taxes are also included as a small share of Gross State Product. Total industry output is the value of total output or total revenue from sales.

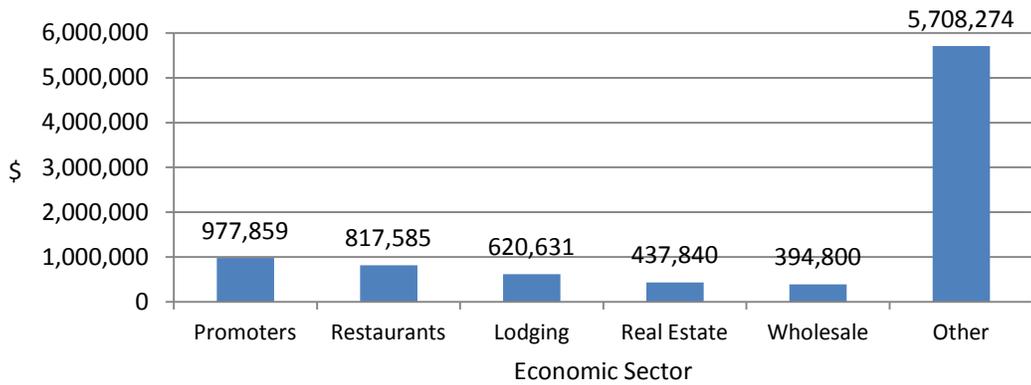
**Table 3. Total Economic Impact of Garrison Arena on the Anderson, Oconee, and Pickens Economy.**

Analysis	Employment	Total Industry Output	Earned Income	Gross Regional Output
		------(Millions \$)-----		
Total	92.4	\$8.957	\$2.776	\$4.440

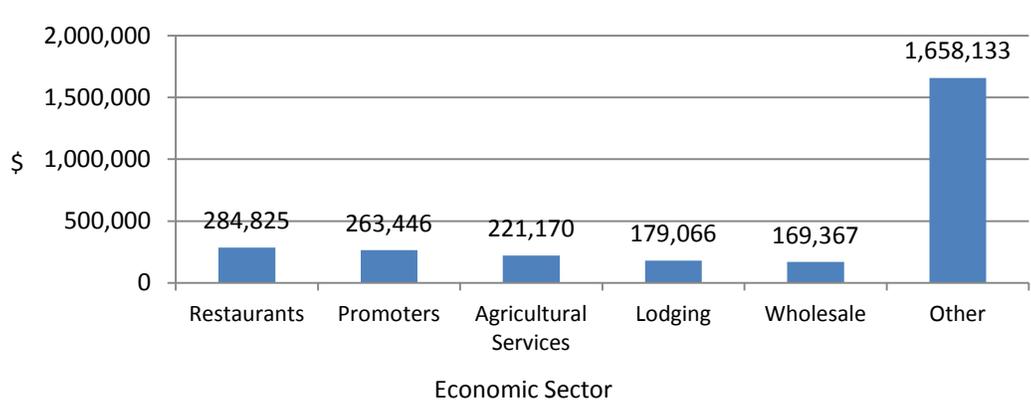
Based on our analysis, spending tied to activity at Garrison Arena generated a total of 92.4 jobs (Table 3). Employment was concentrated in show promoters, restaurants, agricultural service providers, lodging and real estate as shown in Figure 16. In terms of total industry output generated in the local economy, activity tied to Garrison Arena generated \$8.957 million in total economic activity. As shown in Figure 17, output impacts were concentrated in promoters, restaurants, lodging, real estate and wholesale activity. Earned income at \$2.776 million was concentrated in restaurants, promoters, agricultural service providers, lodging, and wholesale (Figure 18). In terms of gross regional product, \$4.440 million of impact was concentrated in restaurants, promoters, lodging, real estate, and wholesale (Figure 19). Garrison Arena is also estimated to generate \$0.469 million in indirect business taxes, but it must be recalled that this result omitted many important forms of taxation (such as income taxes). A significant portion of indirect business taxes accrue to local governments.

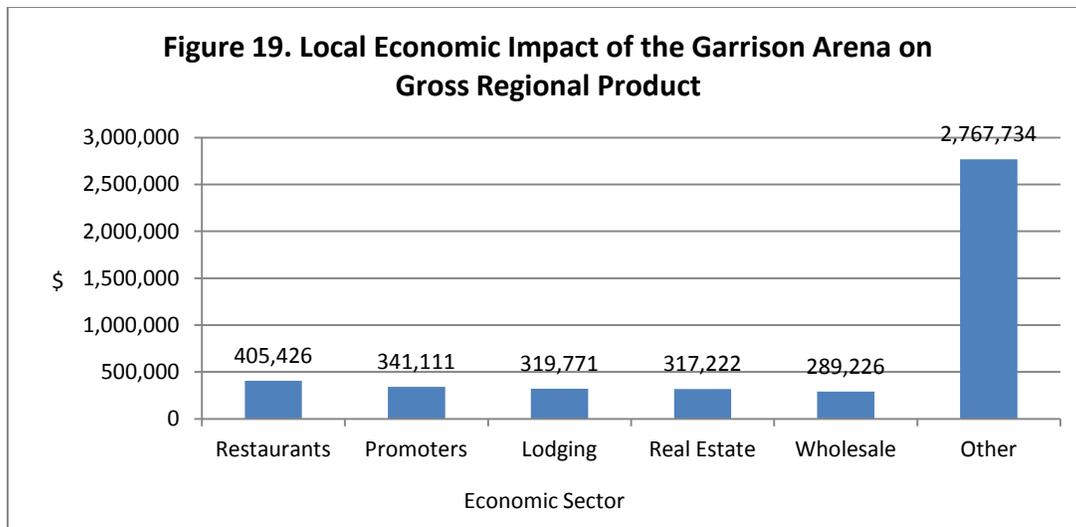


**Figure 17. Local Economic Impact of the Garrison Arena on Output**



**Figure 18. Local Economic Impact of the Garrison Arena on Earned Income**





The direct spending is our calculation and estimate for the total amount of annual spending in the local economy by visitors at Garrison Arena (including the trail). The \$4.381 million is the estimate for the amount of spending by participants at restaurants, hotels, grocery stores, gas stations, feed stores, stall fees, and other locally provided goods and services. The multiplier estimates how many times the direct spending circulates in the local economy. For example, if I spend one dollar at a gas station, a percentage of that dollar is spent locally on labor and inputs and the remaining percentage is spent outside the economy. That is, the difference between our direct spending estimation of \$4.3 million and the impact of \$8.9 million in local output is due to the indirect spending done by those vendors and entities that re-spend the initial money from the visitors of Garrison Arena in the local economy. These spending rounds are then calculated numerous times. This discussion leads to another means of assessing economic impact by determining the contribution of one dollar of direct spending on a given activity on the local economy (i.e., calculate the economic multiplier). Accordingly, one dollar of spending due to activity at the Garrison Arena leads to \$2.04 in total local output (i.e., the \$8.957 million in total impact divided by \$4.381 million in direct spending equals \$2.04), \$0.63 in local earned income (the \$2.276 in total impact on earned income divided by the \$4.381 million), and \$1.01 in Gross Regional Product (the \$4.440 in total impact on GRP divided by the \$4.381 million). Further, a million dollars in direct spending due to activity at the Garrison Arena is estimated to lead to 21.5 local jobs.

Impact results should be interpreted with care by local leaders in part because spending on a particular activity can have alternative uses in the local economy (what economist call an opportunity cost). Specifically in this case, spending by local residents has an opportunity cost because local residents could easily spend such funds on other local goods and services. It is quite possible that such alternative local spending could even have a greater economic impact than spending due to events at Garrison Arena. In such situations, gross, as opposed to net, economic impact analysis could be misleading in assisting the decisions of local policy makers. Alternatively, people from elsewhere who spend funds on a local activity are part of what economist terms export-base spenders. Such spending can be safely assumed to have no

opportunity cost on the local economy. That is, these are “new” dollars brought into the local economy from elsewhere.

We examined the composition of spending in terms of residency for each of our four major categories of spending (equine events, non-equine events, the SCUEC-sponsored events, and trail riding). In terms of our analysis, less than one percent and only 1.7% of spending was by local residents for the nine surveyed equine events and the two surveyed non-equine events. These two categories constitute the bulk of spending in our impact analysis. On the other hand, 10.7% of spending by participants in the SCUEC-sponsored event and 6.9% of trail users was by non-local residents (i.e., export base spenders). However, both of these categories constitute a relatively small part of direct spending at Garrison Arena and hence of the total economic impact. Accordingly, the vast majority of spending in the local economy due to Garrison Arena is by individuals residing in other places. This fact holds for both equine and non-equine events and indicates that most of the impact scenario represents a true contribution to local economic growth.

A final consideration not formally evaluate in this study is the effect of the equine industry on the three county economy because of quality of life considerations. Based on the literature (Gottlieb et al., 2009; Ready et al. 1997) it is likely that the local equine industry contributes to local quality of life and enhances in-migration by helping to keep land in open space agricultural uses. This is another economic impact that would add to the impact of the T. Ed Garrison Arena and other equine industry impacts.

### **Comparison to Other Facilities**

There are only a small handful of facilities similar to the T. Ed Garrison Arena within a 200 hundred mile radius of Pendleton, S.C. A summary of the size and the infrastructure offered at these similar arenas is provided in Table 4. This data was collected through the facility’s websites and through conversations with facility managers. If data is not provided for a given data field, a request was made to the manager to collect the data and the manager did not have the data available. Further, the annual revenues and expenditures for each of the facilities were requested; however, managers were not forthcoming with this information. A document produced by the city of Conyers, Georgia was available online that provided the total annual revenue for the Georgia International Horse Park of \$992,400 and expenditures of \$1,856,713 for the fiscal year 2011-2012 (City of Conyers). Though the T. Ed Garrison Arena has the largest indoor arena of those examined (by over 20,000 sq. ft.), the Conyers facility was the largest overall of the facilities examined.

**Table 4. Comparison Arenas in the Region.**

Arena	City	State	Size (acres)	Total Annual Visitors	Primary Arena Capacity	Primary Arena Sq. Ft.	Indoor	Covered	Outdoor
T. Ed Garrison Arena	Pendleton	SC	100	200,000	3,000	88,000	1	1	2
Western N.C. Agricultural Center	Arden	NC	87	N/A	3,000	65,000	2	1	3
Foothills Equestrian Nature Center	Tryon	NC	380	N/A	0*	43,050*	0	1	5
Georgia International Horse Park	Conyers	GA	1400	500,000 - 750,000	2,500*	32,085*	0	1	9 (includes one Grand Prix)
South Carolina Equine Park	Camden	SC	40	N/A	1,500*	42,000*	0	1	5
Tennessee Livestock Center	Murfreesboro	TN	20	40,000	4,550	23,000	1	1	2
					*-Covered arena				

**Table 4 (Cont.).**

Arena	Lungeing rings	Permanent stalls (#)	Temp Stalls (#)	RV Campsites	Trails Available (miles)	Steeplechase	Conference Center
T. Ed Garrison Arena	1	440	150	90*	50	No	
Western N.C. Agricultural Center	0	603	271	150	0	No	3 Rooms
Foothills Equestrian Nature Center	3	301	96	20	5	Yes	
Georgia International Horse Park	8	560	130	140	15	Yes	3 Rooms
South Carolina Equine Park	0	290		100	0	Yes	
Tennessee Livestock Center	0	214		25	0	No	

\*Of the 90 campsites at T. Ed Garrison Arena, 45 are full service.

The Georgia International Horse Park provided an estimate of 500,000 to 750,000 visitors per year while the T. Ed Garrison Arena estimates 200,000 annual visitors. The Tennessee Livestock Center reported 40,000 annual visitors, but it should be noted that Middle Tennessee State University operates this facility and also has a larger arena that hosts major events such as concerts in addition to the larger equine events. Further, though the Western North Carolina Agricultural Center did not provide an estimate for the total number of annual visitors, they host a fair, the N.C. Mountain State Fair, every year that brings in close to 200,000 individuals over a 10 day span. The Tennessee Livestock Center, the Western North Carolina Agricultural Center, and the T. Ed Garrison Arena are the only three of the six facilities that provide a complete indoor arena as the other three provide covered arenas. The Tennessee Livestock Center has the highest capacity for their indoor arena (4,550), while both the Western North Carolina Agricultural Center and the T. Ed Garrison Arena can host 3,000 persons. That being said, the Georgia International Horse Park can hold 2,500 in their covered arena but an additional 8,000 in a larger outdoor Grand Prix area. All of the facilities only have one indoor arena except for the Western North Carolina Agricultural Center which also has a 500 capacity livestock show ring primarily for sales.

The Georgia International Horse Park trumps the other facilities when it comes to other outdoor and warm-up capacity as well as having the greatest number of permanent stalls. The T. Ed Garrison arena has the third highest number of permanent stalls and fourth most RV campsites available. While the Foothills Equestrian Center, Georgia International Horse Park, and the South Carolina Equine Park all have the facilities to host a steeplechase and the T. Ed Garrison facility does not, the facility in Pendleton, SC is tied into 50 miles of trails available to the public on Clemson's Experimental Forest (i.e., the Fant's Grove Trail System). The trails provide additional activities to generate equine activity; however, these events are typically one day visitors while the steeplechase events draw in a larger crowd that will spend more on restaurants, lodging, and shopping.

A full calendar year of events was obtained for all but one of the comparison facilities. The total number of equine and non-equine events as well as breaking down the total number of days based on the potential economic impact of the show by local, state/regional, or high impact shows was determined. Local events can be described as events that the majority of participants and visitors are from the direct area around the facility and usually are one day events with low additional spending in the region. State/regional shows pull in a large amount of participants from outside the community, but not a strong percentage of out of state travelers. These shows also may be two or three days with the majority of the participants staying the weekend in town for the event. Regional events will have a higher portion of participants staying in hotels, buying from groceries and restaurants, as well as additional spending in fees and vendors at the facility. The high impact shows are the two through five day events that pull in a large portion of the participants from across the southeast and potentially throughout the United States. The majorities of participants are from elsewhere and will spend multiple nights and possibly a week in the area. These shows will have significantly higher spending in the local economy with visitors staying at hotels and buying from the local grocery and restaurants. The results to this analysis can be found in Table 5.

**Table 5. Events by Days for Comparison Arenas Rated by Potential Economic Impact.**

Arena	Equine Events	Non-Equine Events	Equine, Local (Days)	Equine, State, Regional (Days)	Equine, High Impact (Days)	Non-Equine, Local (Days)	Non-Equine, State, Regional (Days)	Non-Equine, High Impact (Days)
T. Ed Garrison Arena	38	19	19	61	20	10	13	3
Western N.C. Agricultural Center	15	58	9	20	20	34	52	20
Foothills Equestrian Nature Center	22	30	30	13	27	34	8	0
Georgia International Horse Park	53	136	45	21	70	128	8	0
South Carolina Equine Park	32	0	22	32	22	0	0	0
Tennessee Livestock Center	17	37	17	6	6	30	37	3

The T. Ed Garrison Arena has a relatively strong showing for regional impact equine shows relative to the other facilities and has the second most equine and total events behind only the Georgia International Horse Park. While the proportion of regional impact equine event days is the strongest for the T. Ed Garrison Arena, the Georgia International Horse Park has over triple the total number of days of high impact shows than the Clemson facility. Relative to the other facilities, the T. Ed Garrison Arena has the highest number of regional event days and second most non-equine high impact event days to the Western North Carolina Agricultural Center. The Georgia International Horse Park has by far the most non-equine events due to the presence of their three conference rooms and Grand Prix area. While these conference centers bring high a high number of total non-equine events, the majority of the events are low impact one day events such as business meetings and other one day/evening events. They do host several larger events on their grounds such as concerts and mud runs, but these events are typically only one day as well.

The Western North Carolina Agricultural Center also has three conference rooms, but their calendar information is only available for the months of August through December. Based on this data, estimations were made for the whole calendar year based on the distribution of events throughout the year of the other comparable facilities. The Western North Carolina Agricultural Center’s facilities in addition to an arena include a 45,000 square foot event and exhibit space with meeting rooms and a restaurant, a 27,750 square foot expo building, and a 5,000 square foot building for meetings and receptions with a catering kitchen available. Based on the event schedule available, 79% of their events are non-equine and 71% of their events are not held in the main arena. A strong portion of the non-equine events do have a regional or high impact on the local economy as 30 of the total 41 event days from August to December are classified as such.

The Foothills Equestrian Center (FENCE) has a large area for course riding and outdoor education events, and the second most high impact equine event days behind only the Georgia International Horse Park. The FENCE Center's high impact shows are highlighted by a series of back to back nationally recognized events by the Tryon Riding and Hunt Club in which some participants may stay several weeks in the area. These shows focus on hunter and jumper events and attract a different audience than the high impact shows hosted at Garrison Arena. In addition to the high impact equine shows, FENCE also has an outdoor education center that hosts many of the non-equine local events displayed in Table 5.

The South Carolina Equine Park is focusing solely on equine events and hosts a strong portion of regional shows. They also have a strong presence of high impact shows and we expect this to only increase in the future as their expansion of infrastructure and market presence continues to build as this is a new facility that hosted their inaugural event in 2009. This facility has a strong relationship with Kershaw County who has already been the benefactor and realizes the strong potential economic impact an equine facility can have in a region. The Tennessee Livestock Center has a much stronger presence in regional impact events for the non-equine activity. As previously stated, the majority of the large equine events are held in another facility.

While it is to be expected that a much larger facility such as the Georgia International Horse Park hosts slightly more than triple the amount of high impact shows than the T. Ed Garrison Arena and FENCE has slightly more as well, it can also be used to realize the potential of the T. Ed Garrison Arena. As demonstrated in Table 5, the T. Ed Garrison Arena already has a strong market presence for regional shows and it could be expected for these to grow if the facility could expand to meet a broader range of needs similar to the Georgia International Horse Park.

### *Cross-Country Course*

There are very few facilities in the Southeast United States that provide both a first class arena facility in addition to a cross-country course for use by recognized horse trials. Two of the larger facilities that do are the Virginia Horse Center in Lexington, Virginia and the Kentucky Horse Park in Lexington, Kentucky. These two facilities are known nationwide by equine enthusiasts.

The Kentucky Horse Park boasts a \$240 million (Kentucky HBPA) economic impact while the Virginia Horse Center creates \$88 million in jobs and sales revenues for the state of Virginia (Virginia Horse Center). Perhaps more stunning is the fact that the Virginia Horse Center has an annual budget of \$3.5 million (Virginia Horse Center).

The most notable point to take from them is their ability to host several different disciplines of state and regional events on the same day or weekend due to the fact that both of these facilities have several times more show arenas than the T. Ed Garrison facility. If the T. Ed Garrison arena were able to draw in different types of crowds and still provide first class facilities, they could create a significant increase in their economic impact on Anderson, Pickens, Oconee, and Greenville counties. One potential way to accomplish this would be to create a recognized cross-country course to bring in additional state/regional shows, as well as potential high-impact events.

To build such a facility to attract events that will create a significant economic impact on the surrounding community, Clemson University and T. Ed Garrison Arena would need to build a cross-country course, a dedicated jumper ring, and several dedicated dressage rings.

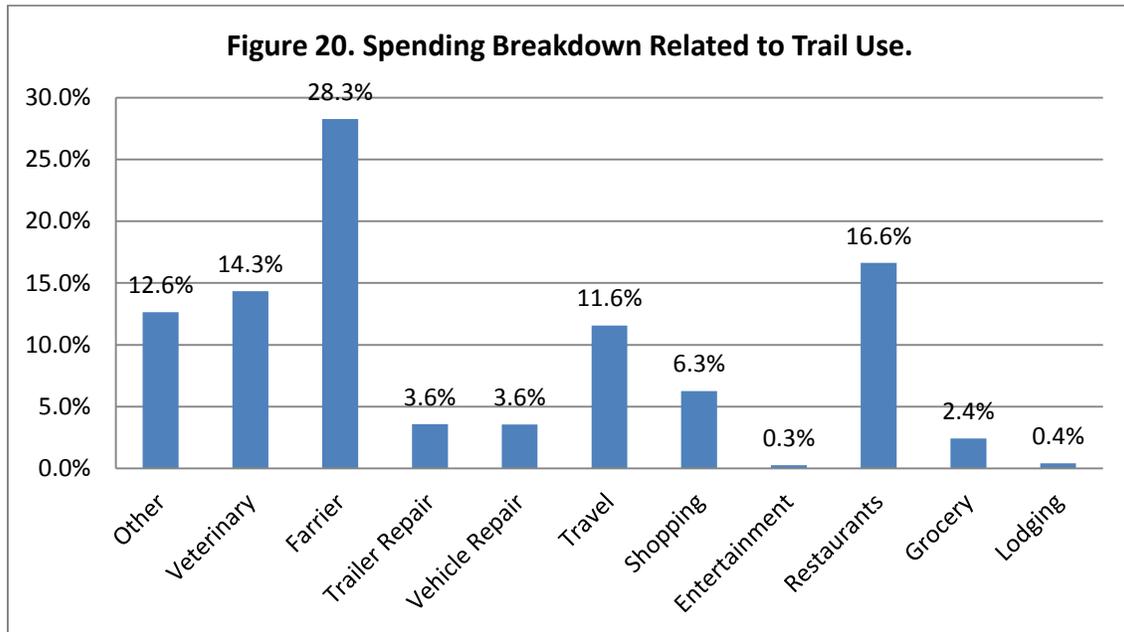
The research team consulted with Todd Richardson of Course Components, LLC of Aiken, S.C. to determine the cost of building such a facility. Course Components specializes and has experience in building and designing cross country courses for similar facilities across the east coast. Without knowing the specific details of land availability and layout, the research team and Course Components assumed that 75 acres of land are available and the willingness to build three courses with the highest being training level to determine an broad estimate price point to build the prospective facility. The estimated cost provided by Course Components is \$500,000 with a maintenance cost of \$80,000 each year after the facility is built. This course can be designed with the previous assumptions, but with the infrastructure to add higher level courses in the future if the facility determined it to be feasible. Further, Course Components suggested that around 80% of riders who participate in events do not make it beyond the training level and that the cost of an additional intermediate course could alone pay for the three lower divisions combined (Course Components). Thus, according to course designer Todd Richardson of Course Components, the majority of revenue and profit for cross-country courses come from events targeting riders in the training level or below.

These types of facility additions would provide T. Ed Garrison Arena a more viable source of revenue through their ability to provide first class facilities for hunter and jumper and dressage events in addition to other events and schooling. This addition or any additional outdoor show rings has the potential to attract high impact shows from around the Southeast, thus providing the potential to significantly increase the economic impact for the surrounding communities.

### **Trail-riding System**

In addition to the T. Ed Garrison Arena, Clemson University also offers 50 miles of trails in the nearby Clemson Experimental Forest through the Fant's Grove Trail System. These trails are open to the public for horse and bike riding as well as hiking. Through an online and in-person survey of the users of the Clemson Experimental Forest trails, a total of 66 surveys were collected and survey responses suggest that an average of 250 riders use the trails each week (this of course varies depending on weekend or weekday with higher weekend use). Several respondents suggested that up to 100 riders use the trails on a given day during the weekend. Of those who provided their county of residence, only five respondents were not from the three county region. Further, only three of the respondents indicated that they have or planned to spend money during their trail riding trip for lodging. Though the survey results indicate that the primary users of the trail are local, there is still a substantial spending amount annually as a result of use Fant's Grove Trail System in the Clemson area of \$552,690, or 12.6% of the \$4.3 million in direct spending related to the arena.

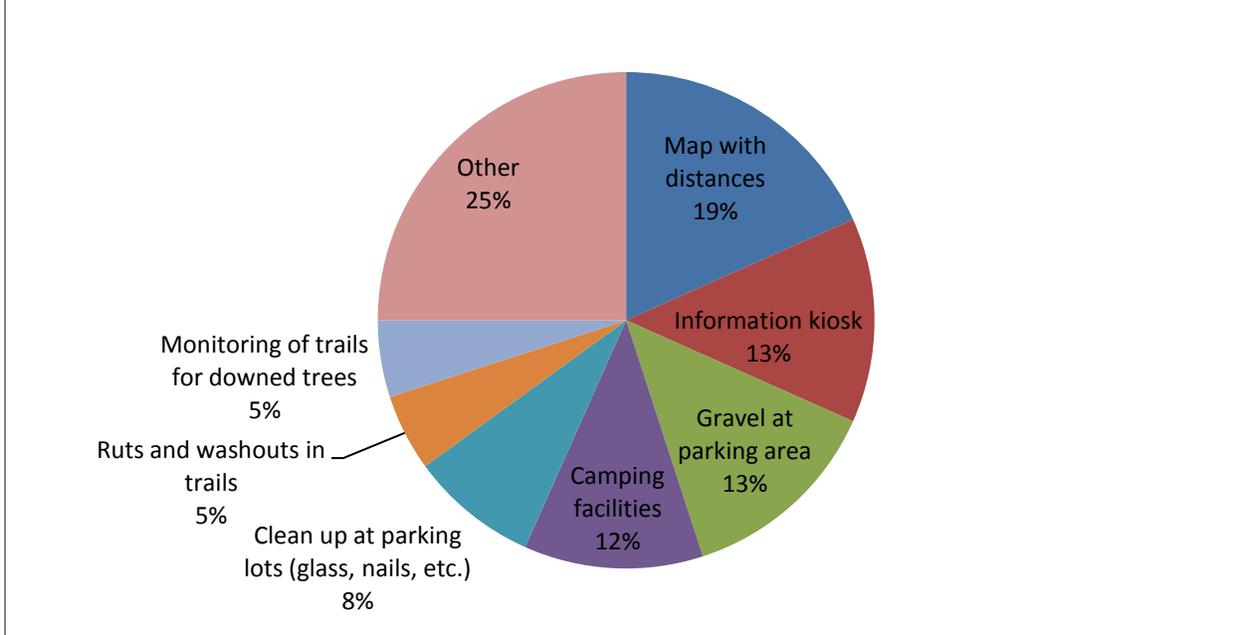
As displayed in Figure 20, the highest spending category for trail users is spending for farriers at 28.3%, while spending at restaurants is the second highest category with 16.6% of the total spending related to trail use. Other substantial segments of spending include veterinary at 14.3%, travel (gas, fuel, etc.) at 11.6%, and other at 12.6%. All the other categories specified in the survey are below 7% of the total spending by trail users in the regional economy.



Trail users were also asked an open ended question regarding the improvements they would like to see for the trails at the Clemson Experimental Forest. The surveys produced 60 responses, results to this question with the three top responses being the need of a map with distances between markers (18.3%), the need of an information kiosk with rules, regulations, and information posted (13.3%), and the need for gravel at the parking areas (13.3%) (Figure 21).<sup>3</sup> Further, the need of camping facilities (11.7%) and the need of clean up at parking lots (8.3%) received the next two highest responses while five percent of the respondents indicated there was a need for both more frequent monitoring of the trails for downed trees and maintenance to the ruts and washouts in the trail. Other responses that did not fit into one of the previous categories accounted for 25% of the total responses. These responses ranged from the need of wider trails, speed bumps at horse crossings, and bridge maintenance, to the need of hitching posts, mounting blocks, and picnic tables throughout the trails.

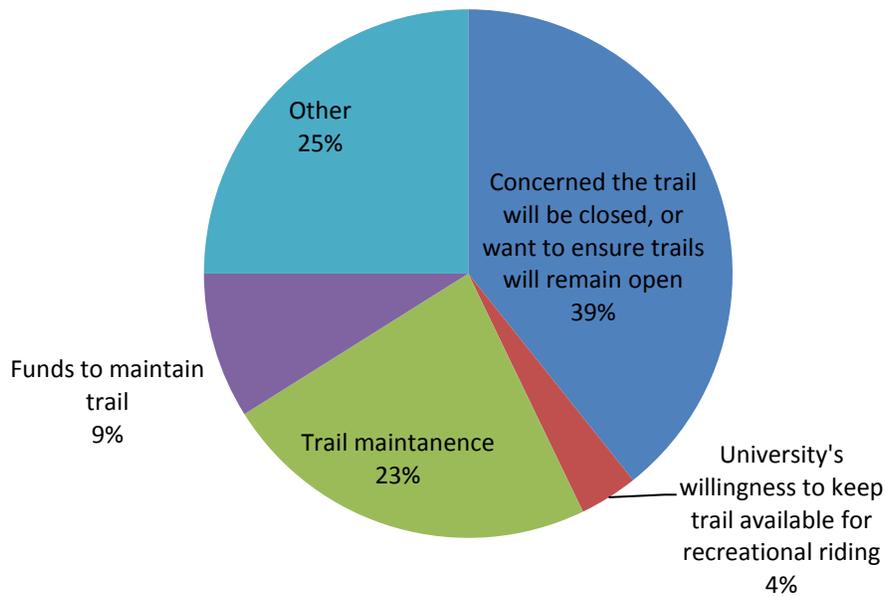
<sup>3</sup> The number of survey responses vary for this and other questions because not all 66 respondents answered every question.

**Figure 21. Improvements for Trails.**



When asked about the needs or concerns trail users have about the future of the trail, 56 responses were collected and the results are provided in Figure 22. Of those 56 responses, 39% responded that they were concerned the trail would not remain open to public use in the future. These respondents did not provide specific reasoning for their response, though through other open ended responses and the fact that only 4% indicated they are concerned with Clemson University’s willingness to keep the trail open, we can assume the strong concern is present because of the recreational leisure it provides to the community (as opposed to thoughts that Clemson University is not in favor of the trail). Further, 23% are concerned about trail maintenance in the future and 9% are concerned with the future funds to maintain the trail. Again, other responses account for 25% and some of these responses include the interest in additional trails and jumps for the future as well as the increasing use by bike riders and the safety for the horses related to bike riders (i.e. numerous people reported bike’s coming up fast from behind horses or from around corners and the horses throwing their riders) and similar answers to the previous question regarding camping, picnic shelters, and an information kiosk.

**Figure 22. Concern for Future of Trails.**



### **Summary and Conclusions**

Livestock arenas have the potential for generating significant economic activity based on equine and other types of activities. This study provides estimates of the economic impact of one such facility, the T. Ed Garrison Arena on the local (i.e., Anderson, Oconee, and Pickens Counties) economy based on extensive surveying of individuals attending Arena events. The three county area is a center of the equine industry in South Carolina, responsible for over 13% of all horses in the state according to a study conducted in 2004. Also included in the analysis is the economic impact of the 50 mile Fant's Grove trail riding system that is part of the Arena complex. To capture the economic impact, attendants at 12 Arena events and users of the trail system were surveyed concerning their spending in the local economy. On-site spending was concentrated in show fees and stall fees while off-site spending was concentrated in lodging, restaurants, and groceries. Results from the 12 events were matched to 52 events in the 2012 calendar year to arrive at a direct annual economic impact of \$4.381 million (i.e., on-site and off-site spending that occurred because people attended Arena events).

The impact analysis relies on a multiple-region Input-Output (I-O) model of the local economy (with formal feedback links to the Greenville County economy). The model was constructed using the IMPLAN input-output economic model building computer program for 2009 (IMPLAN 2000). This multiplier model is used to estimate how many times the direct spending circulates in the local economy. For example, if I spend one dollar at a gas station, a percentage of that dollar is spent locally on labor and inputs and the remaining percentage is spent outside the economy. That is, the difference between our direct spending estimation of \$4.3 million and

the total impact on local output is due to the indirect spending done by those vendors and entities that re-spend the initial money from the visitors of Garrison Arena in the local economy. These spending rounds are then calculated numerous times.

Model results indicate that the Arena makes a substantial contribution to the local economy. Specifically, the \$4.381 million in direct spending due to the Arena leads to 92.4 local jobs, \$8.957 million in local output, \$2.776 million in local earned income, and \$4.440 million in Gross Regional Product. A typical dollar spent directly on Arena activities lead to \$2.04 of total economic activity in the local economy. This impact occurs despite the recent slowdown in the national, regional, state, and local economies, which particularly affects recreational-based activities such as equine. Study results also indicate that the vast majority of spending on both equine and non-equine events at the Arena was by individuals living outside of the three county area. Hence, most of the economic impact is not merely a reshuffle of local dollars and in fact is bringing new dollars into the local economy.

A separate survey of Fant's Grove trail system riders also indicated request for selected improvements. Major improvements include the need of a map with distances between markers (18.3% of survey respondents), the need of an information kiosk with rules, regulations, and information posted (13.3%), and the need for gravel at the parking areas.

An evaluation was also conducted of similar facilities within a two hundred miles radius of the Arena in terms of infrastructure and events. Data was collected through the facility's websites and through conversations with the given facility's manager. Events at all facilities were classified as regional impact based on number of show days and conversions with facility management. The T. Ed Garrison Arena has a relatively strong showing for regional and high impact equine shows relative to the other facilities. It has the second most equine and total events behind only the Georgia International Horse Park.

Through analysis of comparison facilities and the impact of specific shows throughout the year, it is evident that the T. Ed Garrison Arena is a first class facility with potential to grow. If the arena builds appropriate outdoor show rings and facilities in addition to what currently is present, the T. Ed Garrison Arena could greatly expand the number of state/regional and high impact shows hosted in Pendleton, S.C. This addition could make the T. Ed Garrison Arena one of the few facilities in the southeast that has the ability to draw in major events for multiple disciplines. If the proper steps were taken, the increase in economic impact on Anderson, Pickens, and Oconee counties would be significant.

Finally, while not evaluated in this study, it is likely that the local equine industry contributes to local quality of life and enhances in-migration by helping to keep land in open space agricultural uses. This is another economic impact that would add to the already substantial impact of the T. Ed Garrison Arena.

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## Appendix

**Table 1. Survey Instrument, Garrison Arena Economic Impact Study.**

### South Carolina Upstate Equine Economic Impact Study

This survey is being conducted as a part of a study to measure the economic impact of equine on the South Carolina Upstate’s economy. Though your cooperation in this study is completely voluntary, the information you provide will be extremely valuable to equine activities throughout the Upstate. All information collected in this study will be kept strictly confidential.

Thank you for your participation.

1. What is your primary reason for attending today’s show?
  - Horse owner
  - Horse Trainer
  - Other interests/visitor
2. Where did you travel from to attend this show?  
 County \_\_\_\_\_ State \_\_\_\_\_
3. How many family members are with you for this show (not including yourself)? \_\_\_\_\_
4. How many days will attend this show? \_\_\_\_\_ days
5. How many shows (best guess) a year do you attend at this arena? \_\_\_\_\_ shows

For this section of the survey, this questionnaire is requesting information about expenditures associated with attending today’s event at the T. Ed Garrison Arena. Please record your total out of pocket expenses for the following categories. If you are not sure about a response, please provide your best estimate rather than leaving it blank. Please report only numbers within your household.

Category	Expected to Spend in the Clemson Area (Anderson, Pickens, & Oconee Counties)	Expected to Spend on the way to the Clemson Area
Food at restaurants	\$ _____	\$ _____
Grocery stores	\$ _____	\$ _____
Lodging	\$ _____	\$ _____
Entertainment	\$ _____	\$ _____
Shopping	\$ _____	\$ _____
Travel (gas, fuel, etc.)	\$ _____	\$ _____
Car rental	\$ _____	\$ _____
Vehicle repair	\$ _____	\$ _____
Trailer repair	\$ _____	\$ _____
Show fees	\$ _____	\$ _____
Vending at the show	\$ _____	\$ _____
Other spending while at the show	\$ _____	\$ _____
Farrier	\$ _____	\$ _____
Horse Stables	\$ _____	\$ _____
Veterinary	\$ _____	\$ _____
Other, please describe: _____	\$ _____	\$ _____

**Table 2. Surveyed Shows at Garrison Arena.**

<u>Event</u>	<u>Dates</u>
WCAHA Arabian Horse Show	November 4-5
IPRA Rodeo	November 18-19
WCAHA Arabian Horse Show	March 30-April 1
Agility Dog Show	May 11-13
SCUEC Horse Play Day in May	May 19
SC High School Rodeo	May 24-26
Palomino Horse Show	June 9-10
Carolina Brahman Breeders Association Annual Sale	June 9-10
WCAHA Arabian Horse Show	June 11-12
SC 4-H Horse Show	June 18-21
Carolina Region Pony Club	June 23-27
NCQHA District One AQHA Horse Show	June 28-July 1