

Regional Dynamics & Economic Modeling Laboratory

The Strom Thurmond Institute of Government & Public Affairs



Economic and Fiscal Impacts of the Nonprofit Sector in South Carolina

Prepared for the South Carolina Association of Nonprofit Organizations

By
Robert T. Carey, Ph.D., Interim Director
carey2@clemson.edu
864-656-0372

January 2008

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Executive Summary

The economic and fiscal impact of nonprofit organizations on the state of South Carolina between the years 2007 and 2015 is determined by estimating the total effects of spending by nonprofit organizations on inputs, including worker wages, for the production of goods and services. The data used were obtained from the National Center for Charitable Statistics (NCCS), and are current as of September 2007. This study only considers the impact from the economic activity of nonprofits; it does not consider the value of the goods and services produced by nonprofits to society. As such, the following is, if anything, an understatement of the true economic impact that nonprofits have on the state.

The analysis considered the impact of nonprofits both with and without including private nonprofit hospitals. These are a very large component of the nonprofit sector in South Carolina, comprising nearly half of the sector in terms of total revenues generated. The models run without this important component allow us to isolate the impact of both hospitals and the remainder of the nonprofit sector. Additionally, the analysis took into account whether monies that are currently either donated or earned by nonprofits would remain in the local area in the absence of the nonprofit organizations, or if the money would “leak” out of state. By doing this, we are able to estimate the minimum (if the money were to stay local) and maximum (if the money were to leak out-of-state) impact of the sector; the actual impact is predicted to fall somewhere between these two extremes.

The impact of nonprofits on the state is presented in brief in the following tables. The numbers represent the high and low range of the estimated annual impact in each category. Note that these numbers represent the direct impact of spending by the nonprofits themselves and indirect and induced economic activity – in other words, the “spillover” effects from the spending by nonprofits. The metrics used in this study are the following:

- **Gross State Product (GSP)**, which is the dollar value of all new, final (i.e. consumer ready) goods and services produced in the state in each year;
- **Disposable Income**, defined as total household income less taxes, plus transfer payments, and
- **Net Government Revenue**, consisting of revenue from all sources, including taxes, fees and intergovernmental transfers, minus expenses. This is presented both for state and all local (county and municipal) governments.

The number of jobs generated statewide through nonprofit activity and its spillover into the broader economy is estimated to be between 113,000 and 232,000 over the nine-year study period, not counting the effect of private nonprofit hospitals, and between 171,000 and 358,500, including hospitals.

**Table S1 – Economic and Fiscal Impacts of Nonprofits Excluding Hospitals
South Carolina (2007-2015)**

Category	Annual
Gross State Product	\$5.35 – 11.90 billion
Disposable Income	\$3.04 – 7.35 billion
Net State Government Revenue	\$0.57 – 1.31 billion
Net Local Government Revenue*	\$422.15 – 963.56 million

* Includes County and Municipal governments.

**Table S2 – Economic and Fiscal Impacts of Nonprofits Including Hospitals
South Carolina (2007-2015)**

Category	Annual
Gross State Product	\$9.21 – 21.33 billion
Disposable Income	\$5.36 – 13.28 billion
Net State Government Revenue	\$0.99 – 2.89 billion
Net Local Government Revenue*	\$0.74 – 1.74 billion

* Includes County and Municipal governments.

The preceding tables present the economic impact of nonprofits at the state level. An estimate of the impact of these organizations for each county in the state is presented in the appendix.

In addition to economic impacts, the study found that the economic activity associated with nonprofits will be responsible for drawing between 34,000 and 59,800 residents to South Carolina during the study period, excluding the hospital component, and between 58,500 and 106,700 residents including the activity generated by hospitals. This gives us a sense of the value that nonprofits have for the quality of life in the state, although, again, this is only considering economic activity generated by the sector, and not the intrinsic value of the goods and services produced.

I. Introduction

The model presented estimates the economic impact of nonprofits on the state of South Carolina by modeling the impact that removing them would have on the state economy. In essence, what would South Carolina look like if nonprofits simply did not exist between the years 2007 and 2015? The answer to this question allows us to estimate the amount of economic activity attributable to the presence of nonprofits. It is important to note that this model does not consider the inherent value of the activities undertaken by these organizations. For example, it does not consider the savings to society derived from preventive care or the value to the economy of having a better-educated populace. The value of these outputs generally is very difficult to quantify, and no attempt to do so is made in this study. As such, these benefits should be viewed as over and above those described in this analysis.

The model estimates the direct, indirect and induced effects of nonprofit activities. *Direct impact* refers to the creation of jobs and spending by the nonprofits themselves. *Indirect impacts* are those increases in jobs and income that result from spending by those directly associated with nonprofit organization activities; for example, staff members will spend their income on groceries, appliances, fast food and so forth; this will result in an increase in income for local establishments, and possibly the creation of new jobs. *Induced effects* are the broader effects that the remainder of the economy experiences as a result of these direct and indirect effects. One might imagine ripples in a pond; as the incomes of local businesses and their employees increase, they will in turn spend more money in the local economy leading to an overall increase in economic activity that is finally greater than the initial amount injected into the economy by nonprofit organization expenditures.

II. Model Inputs

The model utilizes financial data for South Carolina nonprofit organizations available through the National Center for Charitable Statistics (NCCS) at the Urban Institute. These data are current as of September 2007. They are derived from Form 990 filed by registered nonprofits with the Internal Revenue Service (IRS); therefore, only organizations that file with the IRS were included in the study. Of the 15,010 public charities and 522 private foundations registered under section 501(c)(3) of the Internal Revenue Code in the state as of September 2007, 11,043, or approximately seventy-one percent, are non-reporting due to gross receipts of less than \$25,000. The impact on the study of excluding these smaller organizations will not be substantial at the micro level; however, cumulatively, these organizations may have a significant impact. The net effect of excluding these organizations therefore is that the overall impact that nonprofits have on the state as a whole will be somewhat underestimated.

The financial data used in the model include spending by private foundations and public charities on day-to-day activities, including salaries paid to employees. The model assumes that an organization's total revenues are equivalent to its total spending. Nonprofits in the state are categorized according to the North American Industry Classification System (NAICS) code that most closely matches the organization's activities according to its National Taxonomy of Exempt Entities (NTEE) classification. Spending by nonprofits was entered into the model as a percentage of total economic activity in their respective NAICS categories. Nonprofits' percent share of their respective categories was assumed to be equal to their 2007 share in each of the subsequent years; in other words, growth in nonprofits over time was assumed to be proportionally equivalent to that of the broader economy. The percent share of nonprofits, including public charities and private foundations, in each of the utilized NAICS categories is presented in Table 1.

Table 1 – Percent Share, Reporting Nonprofits of Total State Output by NAICS Code (2007 – Excluding Hospitals)

NAICS Category	NAICS Code	Percent of Total Output
Agriculture, Forestry, Fishing, and Hunting	110	2.3%
Professional, Scientific, and Technical Services	541	2.7%
Education*	611	100%
Health Care	620	13.9%
Social Assistance	624	100%
Performing Arts and Sports	711	83.5%
Recreation and Amusement	713	5.8%
Religious, Civic, and Grantmaking Organizations	813	67.8%
Unknown	999	<1%

Source: NCCS and Regional Dynamics

* Some for-profit educational entities clearly do exist under this NAICS classification. However, conversion between NTEE and NAICS codes is not sufficiently refined to match nonprofit activities to corresponding industry sectors perfectly.

The model is used to generate multiple simulations, by which a range is established within which the impact of nonprofits is predicted to fall. This is done by first assuming that all monies donated to or earned by nonprofits would be utilized within the county or state through government or private for-profit entities in the absence of the nonprofit sector (local displacement); this assumption generates a minimum level of impact for the sector. The upper end of the range is generated using the assumption that, in the absence of the nonprofit sector, all contributions would flow to other states (non-local displacement). The model is run for each of these scenarios both with and without the inclusion of private nonprofit hospitals in order to isolate the impact of this large component of the nonprofit sector.

The model was run using the Regional Dynamics (REDYN) modeling engine. REDYN is an Internet subscription-based Input-Output (I/O) and Computable General Equilibrium (CGE) modeling engine that forecasts economic and fiscal impacts of changes in various economic factors. The model utilizes the most current data available in order to forecast a baseline level of activity within over 800 Standard Occupation Classification (SOC) and 703 North American Industry Classification System (NAICS) sectors. Changes to employment, income, or demand for products or services by either the private or the public sector can be inputted to the model.

Based on these inputs, the model generates an estimate of the resultant variation from the projected baseline due to direct, indirect and induced effects, as well as the effects on every industry resulting from changes in prices of inputs and relative profitability of the industry. This output can be broken down according to effects on a number of indicators, including state output, employment, income, and tax revenue. The national REDYN model is available through the Strom Thurmond Institute.

III. Model Results, Excluding Hospitals

A. Local Displacement

The total impact of the nonprofit sector in South Carolina, less private nonprofit hospitals, is presented in Table 2.¹ Table 2 contains the model results based upon the assumption that monies allocated to nonprofits would remain in the state were the nonprofit sector removed. Under this scenario, the South Carolina economy produces between 113,185 and 135,444 more jobs over the nine-year study period due to direct, indirect and induced effects than it would in the absence of the nonprofit sector.

Table 2 – Economic and Fiscal Impacts of Nonprofits Excluding Hospitals, Local Displacement South Carolina (2007-2015)

Category	Annual	Cumulative
Gross State Product	\$5.35 – 6.97 billion	\$54.99 billion
Disposable Income	\$3.04 – 4.27 billion	\$32.71 billion
Net State Government Revenue	\$570.87 – 761.05 million	\$5.84 billion
Net Local Government Revenue*	\$422.15 – 559.34 million	\$4.29 billion

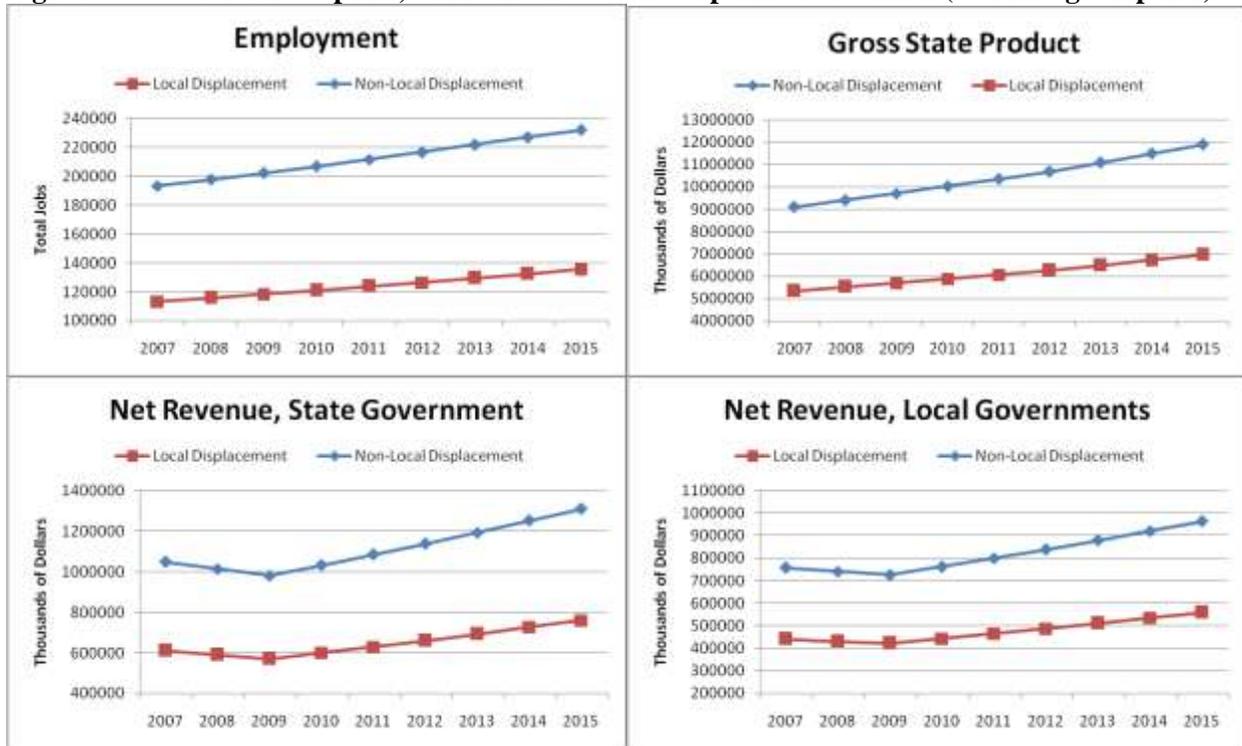
* Includes County and Municipal governments.

Net government revenues presented in Table 2 are computed by subtracting changes in total government expenditures from changes in total government revenue. Note that nonprofit organizations do not pay taxes themselves, but their employees do pay property and income taxes, as well as sales taxes on purchases. Furthermore, government revenues are generated through taxable activities resulting from indirect and induced effects. The 2007 state government revenue impact (before deducting for expenditures) estimated by the current model was \$610 million, constituting roughly three percent of total state revenues, which were approximately \$19.9 billion in that year.²

¹ Note that all dollar amounts are in current dollars.

² Baseline state government revenue is an estimate generated by REDYN using projections based upon the 2002 U.S. Census of Governments. Government revenue includes income from taxes, intergovernmental transfers, licensing and other fees, and income from utilities and other operations.

Figure A – Differential Impacts, Local vs. Non-Local Displacement Models (Excluding Hospitals)



B. Non-Local Displacement

Table 3 presents the impact that the nonprofit sector has on the South Carolina economy under the assumption that the monies contributed to or earned by nonprofits would “leak” out of state in the absence of the nonprofit sector. Under this assumption, the nonprofit sector is responsible for creating between 193,292 and 232,104 jobs in South Carolina during the study period. The impact of nonprofits on the economy is greater under the non-local displacement scenario because it assumes that the financial resources utilized by the nonprofit sector are being drawn from outside of the state as opposed to being primarily reallocated from elsewhere within the state, which constitutes an injection into the state’s economy. Figure A illustrates this difference in impact.

Total impact on state government revenue in 2007 (before expenses) was \$1.1 billion, or 5.5 percent of total state revenues, under the assumptions of this model.

Table 3 – Economic and Fiscal Impacts of Nonprofits Excluding Hospitals, Non-Local Displacement South Carolina (2007-2015)

Category	Annual	Cumulative
Gross State Product	\$9.11 – 11.90 billion	\$93.79 billion
Disposable Income	\$5.23 – 7.35 billion	\$56.28 billion
Net State Government Revenue	\$0.98 – 1.31 billion	\$10.06 billion
Net Local Government Revenue*	\$725.00 – 963.56 million	\$7.39 billion

* Includes County and Municipal governments.

IV. Model Results, Including Hospitals

A. Local Displacement

Under the assumption of local displacement, the nonprofit sector, including hospitals, will contribute between 170,796 and 199,749 jobs to the state economy over the study period. Table 4 presents the additional metrics of the economic impact of nonprofits. Hospitals constituted approximately \$4 billion in revenue of the \$9 billion nonprofit sector in 2007. Comparison of this table to Table 2, which showed the impact of nonprofits *sans* hospitals under the same set of assumptions, will demonstrate the importance of this large sector. This is illustrated for the local displacement model in Figure B.

The total impact on gross state government revenue in this model was \$1.2 billion in 2007, which was 5.9 percent of total revenues in that year.

**Table 4 – Economic and Fiscal Impacts of Nonprofits Including Hospitals, Local Displacement
South Carolina (2007-2015)**

Category	Annual	Cumulative
Gross State Product	\$9.21 – 11.77 billion	\$93.52 billion
Disposable Income	\$5.36 – 7.28 billion	\$56.62 billion
Net State Government Revenue	\$0.99 – 1.38 billion	\$10.11 billion
Net Local Government Revenue*	\$736.81 – 954.32 million	\$7.43 billion

* Includes County and Municipal governments.

B. Non-Local Displacement

Under the assumption of non-local displacement, the nonprofit sector, including hospitals, is predicted to produce between 306,538 and 358,515 jobs in the state through direct, indirect, and induced effects during the study period. Table 5 presents the remainder of the economic impacts.

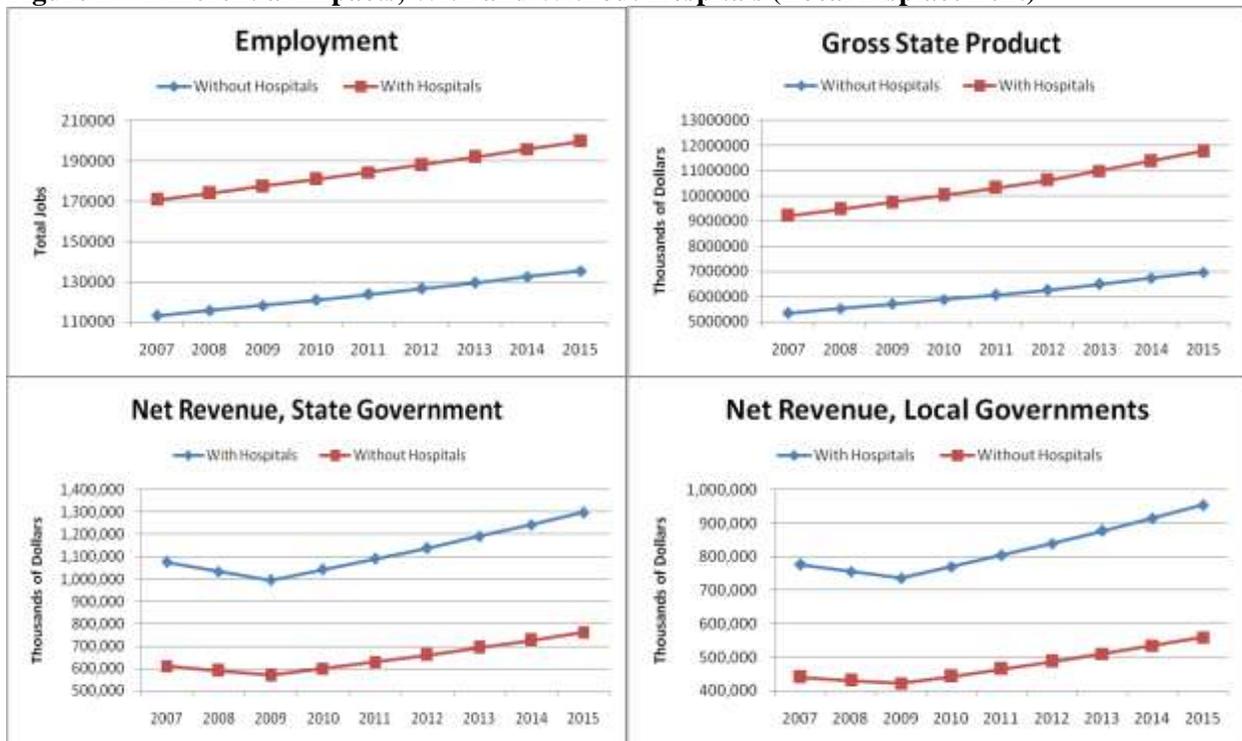
Under this set of assumptions, the total impact to gross state government revenue was \$2.1 billion, or 10.7 percent.

**Table 5 – Economic and Fiscal Impacts of Nonprofits Including Hospitals, Non-Local Displacement
South Carolina (2007-2015)**

Category	Annual	Cumulative
Gross State Product	\$16.69 – 21.33 billion	\$169.53 billion
Disposable Income	\$9.78 – 13.28 billion	\$103.30 billion
Net State Government Revenue	\$1.96 – 2.89 billion	\$22.30 billion
Net Local Government Revenue*	\$1.34 – 1.74 billion	\$13.56 billion

* Includes County and Municipal governments.

Figure B – Differential Impacts, With and Without Hospitals (Local Displacement)



V. Amenity Value

In addition to the economic impacts presented in the previous sections, the model indicates that nonprofits provide a substantial amenity value to the state. Amenity value refers to benefits associated with quality of life that act as inducements for people to reside in the state. Amenities can be, for example, infrastructural, such as access to highways and airports or the presence of municipal sewer services or broadband Internet access, environmental, including visual aesthetics or access to recreational opportunities such as a lake or beach, or the amenities can be the presence of other services that improve quality of life such as those produced by nonprofit organizations. As noted earlier, this model does not attempt to quantify the social value of the goods and services produced by the nonprofit sector; however, the economic activity associated with production in specific NAICS sectors does result in measurable impacts on individual residential location choices. This effect can be seen in Table 6, which indicates a substantial impact on population over the study period.

Table 6 – Additional Residents Due to Economic Activity Generated by Nonprofits South Carolina (2007-2015)

Category	Total Impact by 2015
Local Displacement, Excluding Hospitals	34,157
Non-Local Displacement, Excluding Hospitals	58,821
Local Displacement, With Hospitals	58,502
Non-Local Displacement, With Hospitals	106,684

VI. Conclusion

The nonprofit sector has a significant positive impact on the South Carolina economy. The foregoing analysis merely considers the effects of spending by nonprofit organizations on wages and the purchase of goods and services. The broader effects on the economy and society in general resulting from the activities of these organizations are over and above those presented in this study. Nonprofits also show a substantial amenity value, drawing significant numbers of residents to the state through the economic activity generated by organizations through direct, indirect, and induced effects.

Appendix – County-Level Impacts

The impact of nonprofit organizations at the individual county level for the year 2007 is presented in the following. One *caveat* that must be observed in this analysis: The impact of economic activity within a specific county is by no means limited to that county; even in the case of organizations that target residents of a specific county, some impacts will necessarily spill over into surrounding counties through indirect and induced effects. This model, however, only considers the impact of nonprofits to the county in which they reside. That being the case, the impacts presented in the following tables understate the true impact of nonprofits to local economies. It should also be noted that, like the statewide models, this county-level analysis does not take into account the intrinsic social value of the goods and services provided for the community by nonprofits.

The model used for each county impact is based upon the assumption that monies contributed to or earned by nonprofits would remain within the county in the absence of the nonprofit sector (local displacement), as opposed to “leaking” out to other counties or states. This provides only a minimum estimated impact of nonprofits on the local economy.³ Because NCCS data only decomposes nonprofit activity by NTEE code at the state level, nonprofits were assumed to constitute proportionally the same activity within their respective NAICS sector at the county level as at the state level. The table presents the impacts in terms of additional jobs created, Gross Regional Product (pertaining to goods and services produced within the county), Disposable Income, and Net Local Government Revenue, which includes both the county and municipal levels of government. The impacts include those from private, nonprofit hospitals.⁴

Table A1 – Economic Impact of Nonprofits (Including Hospitals) on Counties, 2007

County*	Employment	Gross Regional Product	Disposable Income	Net Government Revenue (Local)
Abbeville	498	\$11.6 million	\$5.6 million	\$912,000
Aiken	1,545	50.6 million	22.4 million	3.3 million
Allendale	58	1.8 million	695,000	109,000
Anderson	8,846	410.5 million	190.1 million	28.2 million
Bamberg	480	12.6 million	6.0 million	945,000
Barnwell	376	8.4 million	3.7 million	597,000
Beaufort	3,108	142.2 million	103.1 million	12.5 million
Berkley	832	16.4 million	6.5 million	1.1 million
Calhoun	100	1.8 million	851,000	134,000

³ Because the county models do not take cross-county effects into account, non-local displacement estimates are not computed for these models, as such estimates would not constitute a true “upper bound” for the impact of nonprofits on individual counties. This was not a problem at the state level, as the state models include all cross-county effects. Note that the sum of the county impacts in Table A1 is less than the total state impacts reported in Tables S2 and 4; the difference in these numbers can be understood to approximate the aggregated cross-county effects.

⁴ Note that some counties do not contain any nonprofit hospitals. The analysis counts “district” hospitals that claim nonprofit status as nonprofit hospitals. Impact of hospitals at the county level is estimated based upon the number of beds in nonprofit hospitals as a percentage of beds in all private hospitals in the county. The list of hospitals by type for each county as of January 2, 2008 was obtained from the South Carolina Department of Health and Environmental Control website: <http://www.scdhec.gov/health/licen/hrhptl.pdf>

Table A1 (Continued) – Economic Impact of Nonprofits (Including Hospitals) on Counties, 2007

County*	Employment	Gross Regional Product	Disposable Income	Net Government Revenue (Local)
Charleston	22,969	\$1,120 million	\$592.6 million	\$88.5 million
Cherokee	1,816	51.7 million	27.5 million	4.4 million
Chester	128	3.1 million	1.5 million	239,000
Chesterfield	142	4.8 million	2.2 million	356,000
Clarendon	700	25.1 million	14.6 million	2.2 million
Colleton	216	5.2 million	3.3 million	508,000
Darlington	1,149	34.3 million	16.7 million	2.6 million
Dillon	153	3.9 million	2.2 million	348,000
Dorchester	373	11.3 million	4.6 million	758,000
Fairfield	64	2.1 million	653,000	106,000
Florence	8,779	494.4 million	187.5 million	30.2 million
Georgetown	3,622	164.8 million	88.7 million	11.7 million
Greenville	21,067	959.1 million	487.3 million	71.7 million
Greenwood	2,340	82.0 million	40.6 million	5.8 million
Hampton	645	22.4 million	12.7 million	1.9 million
Horry	7,489	392.0 million	229.6 million	33.4 million
Jasper	338	11.0 million	4.6 million	778,000
Kershaw	2,357	86.6 million	42.3 million	6.7 million
Lancaster	1,999	104.2 million	38.3 million	6.1 million
Laurens	2,278	79.1 million	40.2 million	6.3 million
Lee	77	2.1 million	967,000	155,000
Lexington	4,875	196.2 million	95.0 million	15.4 million
McCormick	32	1.0 million	427,000	59,000
Marion	1,746	66.9 million	31.4 million	4.9 million
Marlboro	140	4.0 million	2.0 million	315,000
Newberry	696	21.5 million	11.3 million	1.7 million
Oconee	1,902	87.3 million	46.1 million	6.6 million
Orangeburg	2,847	113.5 million	65.6 million	9.5 million
Pickens	3,094	118.0 million	57.4 million	9.1 million
Richland	34,147	1,935 million	761.4 million	120.9 million
Saluda	230	6.2 million	2.4 million	401,000
Spartanburg	9,720	449.7 million	243.6 million	39.3 million
Sumter	5,896	245.4 million	137.2 million	21.7 million
Union	232	10.5 million	6.3 million	1.0 million
Williamsburg	619	18.0 million	8.8 million	1.4 million
York	1,873	82.0 million	32.2 million	5.3 million
Total (see footnote 3)	162,590	7,671 million	3,678 million	560.1 million

*Edgefield County is excluded from the analysis due to the inclusion of revenue generated by chapters of the National Wild Turkey Federation located outside of the county in Edgefield's statistics.