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Regional Economic Analysis Laboratory

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FISCAL PROJECTION FOR LANCASTER  
COUNTY GOVERNMENT & LANCASTER  
COUNTY SCHOOL DISTRICT

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## Executive Summary

General fund revenue and expenditure streams for the government of Lancaster County, South Carolina and the Lancaster County School District were projected through the fiscal year ending 2025. The analysis was conducted by calibrating historic trends with parameters obtained from the REMI PI<sup>+</sup> model, including population, residential and non-residential capital stock (property values), and other economic indicators. REMI baseline projections for future years were adjusted to account for major investment and new job creation known to be occurring between the current last historic year in the REMI model and 2025; these investment and job creation numbers were provided by the Lancaster County Department of Economic Development. No changes in millage or other tax rates were assumed in the following projections.

Population in Lancaster County is projected to grow from its 2017 population of 92,550, as estimated by the U.S. Census Bureau, to over 103,000 by 2025. This population growth is predicted to largely be fueled by economic in-migration of individuals and families seeking to take advantage of job opportunities associated with new industry expected to move into the county during this time period as well as those working in neighboring Charlotte-Mecklenburg County who choose to live in Lancaster County to take advantage of the county's natural amenities and lower cost of living.

The school district is predicted to experience budget shortfalls starting in FY 2021. A growing school-age population is expected to contribute to increasing demand for public education, thereby increasing operating costs for the school district, while funding sources are predicted to grow more slowly than costs.

Lancaster County government is predicted to continue current budget surpluses through 2025 as funding sources grow at a slightly faster rate than expenditures, despite the increase in demand for local government services fed by growing population.

Two factors in particular appear to be contributing to the divergence between how the finances of the county government and the school district are predicted to be affected by growth. One factor appears to be the impact of South Carolina Act 388 of 2006, which prevents school districts from raising general-fund revenue from taxing owner-occupied residential property; growth in residential capital stock is projected to outstrip proportionally that of non-residential capital stock over much of the study period. Therefore, while school district costs are tied to school-age population, it does not benefit from growth in residential property values. The county government faces no such restriction.

Second, while many expenditure items in the county government's budget are common goods that grow relatively little for each additional resident and other items are used by only a fraction of new and current residents, public education services must be provided to nearly all school-age residents of the county (with the primary exceptions of homeschooled children and those attending private schools). Therefore, the response of expenditures to changes in population are proportionally larger for the school district than for county government. As such, school district expenditures grow much more quickly with regard to population than do those of the county government.

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## I. Introduction

The following is a fiscal projection for county government in Lancaster County, South Carolina and for the Lancaster County School District. This analysis projects general fund revenue and expenditures for the county government and school district through 2025 in order to predict the fiscal position of each over the modeled time period.

Following a summary of the methodology used in the analysis and an economic profile and economic projection for the county, the fiscal projections for the school district and county government will be presented in separate sections of the report. Concluding comments will follow.

## II. Methodology

In order to make its fiscal projections, the Regional Economic Analysis Laboratory utilized the Regional Economic Models, Inc. (REMI) PI<sup>+</sup> modeling engine along with our own Fiscal Impact Analysis Tool. REMI utilizes input-output (IO) modeling as well as computable general equilibrium (CGE) and economic modeling to project a baseline of economic activity assuming *ceteris paribus* except for normal economic growth. Shocks to the economy can then be modeled in terms of departures from that baseline, including direct, indirect, and induced effects.

The REMI model is a new economic geography (NEG) model, taking into account trade flows between regions based upon availability of labor and natural resources and the efficacy of transporting goods and services to and from the region. The model can project economic impacts over multiple years, allowing for intertemporal effects, i.e., “spillover” effects from one year to the next.

The methodology of the analysis was to perform a baseline adjustment to the regional control model within REMI to introduce new economic investment and jobs currently anticipated by the county to the non-historic years of the model. The baseline data in REMI at the time of this report was current through 2015; the baseline adjustment therefore was performed for the years 2016-2025 using information provided by Lancaster County’s Department of Economic Development.

Data from the REMI model were used with our Fiscal Impact Analysis Tool in order to project revenue and expenditures based upon historic trends observed in the county and school district’s comprehensive annual financial reports (CAFRs). Historic data were gathered for the fiscal years ending in 2011 through 2017. The REMI baseline projection data with which each budget item is calibrated are presented for each model in the following sections.

## III. Economic Profile

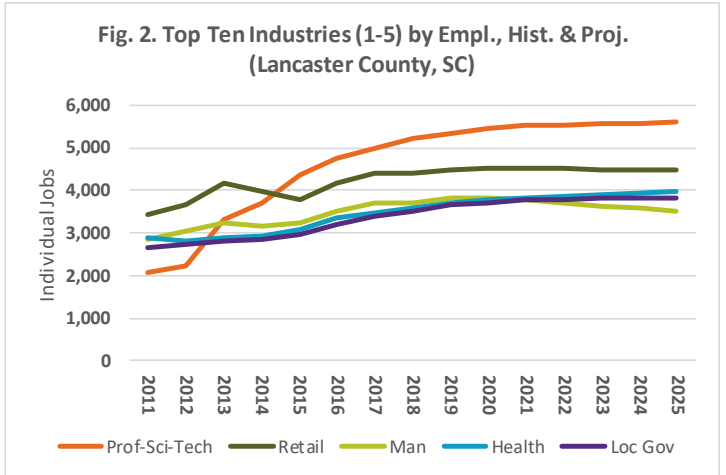
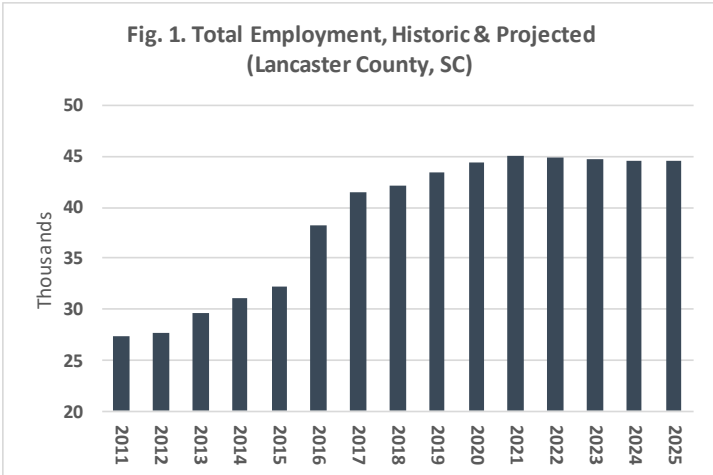
Lancaster County is located in the central northern portion of South Carolina and is part of the Charlotte–Concord–Gastonia metropolitan statistical area (MSA). The estimated population of Lancaster County was 92,550 as of July 2017.<sup>1</sup> This represents a 3.3 percent increase over July 2016 and a 20.7 percent increase since the 2010 Census. Median household income in the county was \$46,852 in 2016, roughly equivalent to the state median of \$46,898. Median value of an owner-occupied housing unit was \$157,700; this was greater than the state median of \$143,600 and lower than the national median of \$184,700. 78.7 percent of housing units in the county are owner-occupied, compared to 68.4 percent statewide and 63.6 percent nationally.<sup>2</sup> The top ten industries by employment in the county are presented in Table 1. 34,464 persons were employed in Lancaster County in 2016; the largest industry sector in the county with regard to employment was professional,

**Table 1. 2016 Top Ten Employment Industries  
(Lancaster County, SC)**

| Industry Sector                           | Number Employed |
|---|-----------------|
| Professional, scientific, technical serv. | 4,906           |
| Retail trade                              | 3,794           |
| Manufacturing                             | 3,351           |
| Health care & social assistance           | 3,178           |
| Local government                          | 3,008           |
| Admin, support, waste management          | 2,375           |
| Other services                            | 2,349           |
| Finance & insurance                       | 1,784           |
| Accommodation & food services             | 1,780           |
| Construction                              | 1,470           |

Source: U.S. Bureau of Economic Analysis

1. U.S. Census Bureau
2. Ibid.



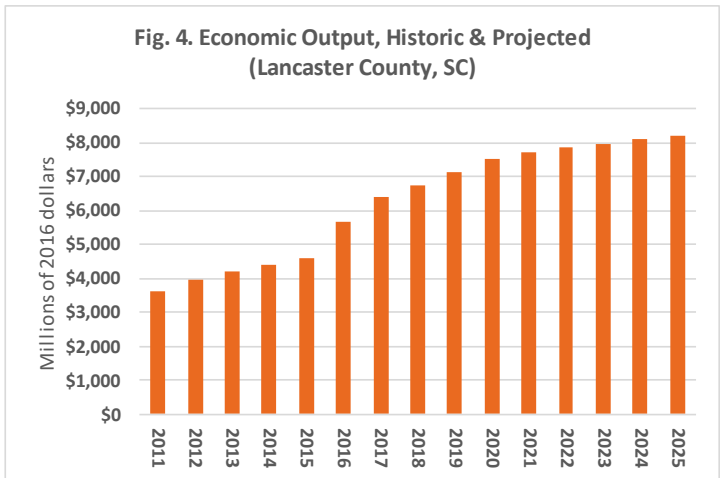
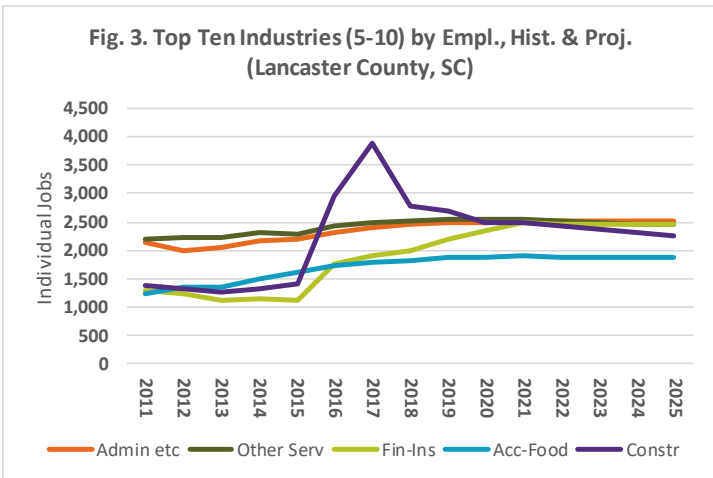
scientific, and technical services, followed by retail, manufacturing, healthcare, and local government.<sup>3</sup> Output in Lancaster County estimated for 2017 (total sales, or the dollar value of all goods and services produced within the county) was \$6.4 billion.<sup>4</sup>

#### IV. Economic Projections

The revised REMI regional control model used to project economic trends in Lancaster County projected continued economic growth through 2025. Note that these and the following projections do not take

and induced effects of construction jobs predicted to result from new investment in the county already anticipated through 2022 (shown in Figure 3). Historic and projected total employment is presented graphically in Figure 1; employment by industry for the top ten industries in the county by employment (as of 2016) are presented in figures 2 and 3.<sup>5</sup>

Total output in the county is projected to expand between 2017-2025, largely due to new investment and new jobs created by already-anticipated industrial location within the county; the county is also predict-



into account exogenous factors, positive (such the unanticipated announcement of a new large investment in the county) or negative (e.g., a national or global economic downturn).

Total employment in the county is projected to increase to 45,000 in 2021 then decline slightly to 44,500 by 2025, due to the gradual loss of indirect

ed to benefit from spillover economic effects from expected growth in neighboring Charlotte-Mecklenburg County. Historic and projected output for Lancaster County is presented in Figure 4.

3. U.S. Bureau of Economic Analysis  
 4. Estimated by REMI  
 5. Historic and projected employment in Fig. 1-3 are REMI estimates.



V. Analysis of Lancaster County School District

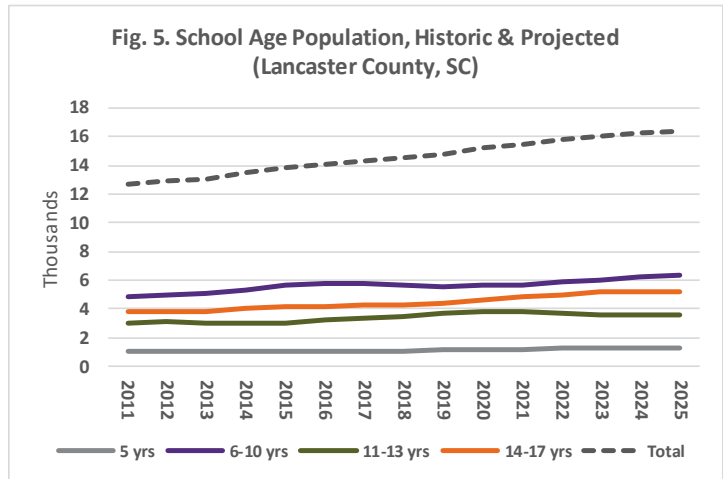
The analysis of the Lancaster County School District examined historic trends in the district’s CAFRs and calibrated those showing apparent trends to parameters generated by the modified REMI regional control model. Most budget items in the school district model are calibrated to student-age population, primarily for spending items, or capital stock, primarily for selected revenue items. Some items not showing a clear trend over time were averaged over some or all historical years. In general, assumptions were made so as to build an appropriately conservative model, i.e. so as not to overstate revenue projections or to understate projected expenditures. Methods for calibrating each budget item are presented in Table 2.

A. Projections for Indicators

REMI projections for school age population and actual capital stock (physical property values) were used as the primary indicators to which revenue and expenditures were calibrated for the school district.

The REMI model predicts continued growth in population for Lancaster County through 2025. This is due primarily to economic migration, i.e. movement of working-age population into the area to take advantage of new jobs and higher relative wage rates. This economic migration is fueled both by job growth within Lancaster County itself, including projected investment and jobs input to the baseline adjustment outlined earlier, and by job growth in neighboring Charlotte-Mecklenburg County.

Because most of this expected migration is projected to be working-age individuals and families, REMI’s demographic projections anticipate accompanying growth in school-age population. This translates into increased demand for the provision of services by the school district, manifesting as higher projected expenditures for education programs (according to corresponding age cohorts) and support services, as well as revenue from funding sources connected to enrollment. Numerically, between 2017-2025, the REMI model predicts the most population growth to occur in the high school age cohort (age 14-17), followed by primary school



(age 6-10), kindergarten (age 5), and the least growth in the middle school age cohort (age 11-13). These projections are shown graphically in Figure 5.

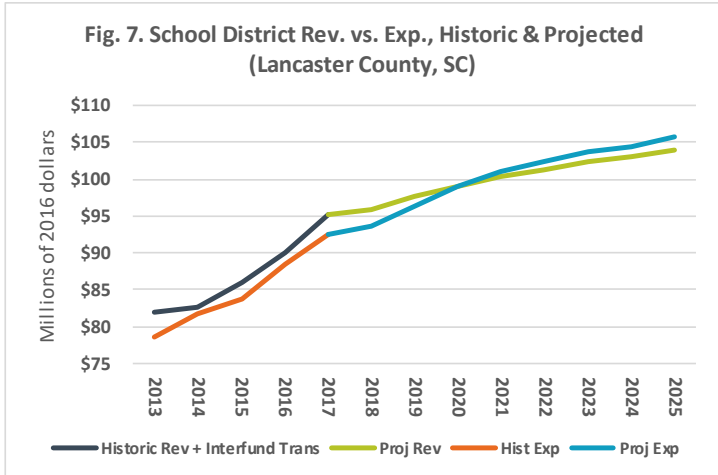
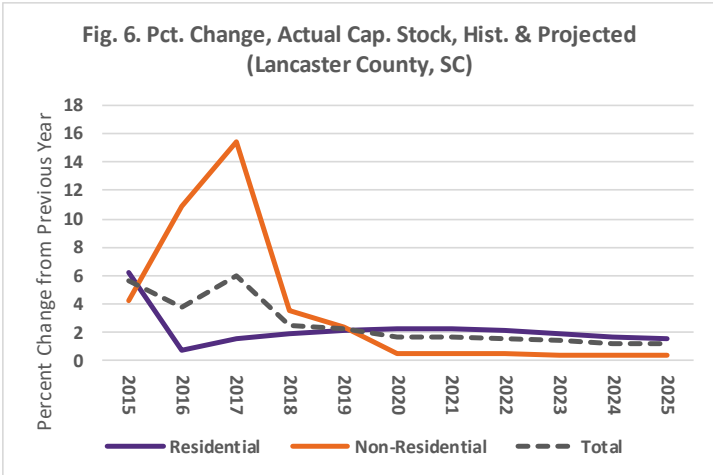
Capital stock was used in projecting ad valorem tax revenue for the school district. Because South Carolina Act 388 of 2006 currently restricts school districts from taxing owner-occupied housing units for general fund revenues, this model used non-residential capital stock, which includes commercial and industrial property, to project ad valorem and fee-in-lieu tax revenue. Because this method excludes rental property, which is included in the residential capital stock projection, this serves to make the model somewhat conservative. Projections are based upon the relationship observed between ad valorem revenue in the most recent CAFR (2017) and estimated capital stock in that year; therefore no millage rate increases are assumed in the model.

B. Findings

Projected growth in the residential population in Lancaster County is predicted to increase demand for public education, which will create additional costs for the school district. However, due to the amount of projected resident population growth predicted by the REMI model to come about from job growth in neighboring Charlotte-Mecklenburg County, the value of residential capital stock is projected to grow at a faster rate than non-residential stock following 2018 (non-residential is projected

Table 2. Methodology for School District Fiscal Projections

| Revenues   |   |
|--|---|
| <b>Revenues from Local Sources</b>                     |   |
| Ad Valorem Taxes                                       | Indexed to growth in non-residential capital stock  |
| Revenue in Lieu of Taxes                               | Indexed to growth in non-residential capital stock  |
| All other revenue from local sources                   | Averaged over FY 2011-2017  |
| <b>Restricted State Funding</b>                        |   |
| Handicapped Transportation                             | Fixed at 2017 value   |
| Bus Driver Salary                                      | Averaged over last three fiscal years (2015-2017)   |
| Employee Fringes (employer paid)                       | Indexed to student-age population growth  |
| Other  | <i>Excluded from forecast</i>   |
| <b>Education Finance Act (EFA)</b>                     | Indexed to student-age population growth (based on 2017 value)                                      |
| <b>State Revenue in Lieu of Taxes:</b>                 |   |
| Tier I   | Fixed at 2017 nominal value (constant-dollar value declines at assumed 2% annual rate of inflation) |
| Tier II  | Fixed at 2017 nominal value (constant-dollar value declines at assumed 2% annual rate of inflation) |
| Tier III   | 2017 value, then indexed to state population growth   |
| Other  | Averaged over FY 2011-2017  |
| <b>Revenue from Other State Sources</b>                | Averaged over FY 2011-2017  |
| <b>Expenditures</b>                                    |   |
| <b>Instruction</b>                                     |   |
| General Instruction:                                   |   |
| Kindergarten   | Indexed to 5 year-old population growth (per-pupil value fixed at 2017 level)                       |
| Primary  | Indexed to 6-10 year-old population growth (per-pupil value fixed at 2017 level)                    |
| Elementary (Middle)                                    | Indexed to 11-13 year-old population growth (per-pupil value fixed at 2017 level)                   |
| High School  | Indexed to 14-17 year-old population growth (per-pupil value fixed at 2017 level)                   |
| Other Programs   | Indexed to 5-17 year-old population growth (per-pupil value fixed at 2017 level)                    |
| <b>Support Services</b>                                | Indexed to 5-17 year-old population growth (per-pupil value fixed at 2017 level)                    |
| <b>Payments to Other Government Units</b>              | Averaged over FY 2014-2017  |
| <b>Interfund Transfers</b>                             |   |
| Transfer (to) from Special Revenue                     | Averaged over FY 2013-2017  |
| Transfer (to) from Pupil Activity                      | Averaged over FY 2013-2017  |
| Transfer (to) from Special Revenue EIA Fund            | Averaged over FY 2013-2017  |
| Transfer (to) from Food Service Fund (Excl. Indirects) | Averaged over FY 2013-2017  |
| Transfer (to) from Other Funds Indirect Costs          | Averaged over FY 2013-2017  |



to grow at a faster rate in the years 2016-2018 due to large capital investments in those years). The respective year-to-year rate of growth for both categories of capital stock and for total capital stock is shown in Figure 6.

Because of restrictions placed on school district funding vis-à-vis owner-occupied residential property, general fund revenue growth is therefore not projected to keep pace with growth in demand over the long term. Including interfund transfers at the assumed levels (see Table 2), current funding sources are predicted to suffice through approximately FY 2020 with shortfalls beginning in FY 2021. At this point it is expected that millage rate increases will be necessary in the absence of increases in state and other funding sources to cover projected expenditures.

Gross revenue (plus interfund transfers) and expenditure projections are shown in Figure 7. Detailed projections for school district revenue and expenditures are presented in Table 3.

Table 3. Projected General Fund Revenue and Expenditures (constant 2016 dollars)  
Fiscal Year Ending: 2017 2018 2019 2020 2021 2022 2023 2024 2025

|  | 2017                 | 2018                 | 2019                  | 2020                  | 2021                  | 2022                  | 2023                  | 2024                  | 2025                  |
|--|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Revenues</b>  |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| <b>Revenues from Local Sources</b>                     |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| Ad Valorem Taxes                                       | \$ 25,812,653        | \$ 26,731,806        | \$ 27,357,443         | \$ 27,492,372         | \$ 27,629,524         | \$ 27,759,646         | \$ 27,876,757         | \$ 27,994,924         | \$ 28,114,266         |
| Revenue in Lieu Taxes                                  | \$ 3,011,866         | \$ 3,119,114         | \$ 3,192,114          | \$ 3,207,858          | \$ 3,223,861          | \$ 3,239,044          | \$ 3,252,709          | \$ 3,266,497          | \$ 3,280,422          |
| All other revenue from local sources                   | \$ 959,849           | \$ 681,977           | \$ 681,977            | \$ 681,977            | \$ 681,977            | \$ 681,977            | \$ 681,977            | \$ 681,977            | \$ 681,977            |
| <b>Total</b>   | <b>\$ 29,784,368</b> | <b>\$ 30,533,897</b> | <b>\$ 31,231,534</b>  | <b>\$ 31,382,207</b>  | <b>\$ 31,535,362</b>  | <b>\$ 31,680,667</b>  | <b>\$ 31,811,442</b>  | <b>\$ 31,943,398</b>  | <b>\$ 32,076,665</b>  |
| <b>Revenue from State Sources</b>                      |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| Restricted State Funding                               | \$ 7,000             | \$ 7,000             | \$ 7,000              | \$ 7,000              | \$ 7,000              | \$ 7,000              | \$ 7,000              | \$ 7,000              | \$ 7,000              |
| Handicapped Transportation                             | \$ 950,422           | \$ 695,158           | \$ 695,158            | \$ 695,158            | \$ 695,158            | \$ 695,158            | \$ 695,158            | \$ 695,158            | \$ 695,158            |
| Bus Driver Salary                                      | \$ 15,858,923        | \$ 16,006,157        | \$ 16,341,971         | \$ 16,773,871         | \$ 17,142,560         | \$ 17,445,840         | \$ 17,751,315         | \$ 17,963,886         | \$ 18,159,132         |
| Employee Fringes (employer paid)                       | \$ 31,592,503        | \$ 31,885,807        | \$ 32,554,781         | \$ 33,415,166         | \$ 34,149,631         | \$ 34,753,793         | \$ 35,362,328         | \$ 35,785,693         | \$ 36,174,741         |
| Education Finance Act (EFA)                            | \$ 3,643,233         | \$ 3,571,797         | \$ 3,501,762          | \$ 3,433,100          | \$ 3,365,784          | \$ 3,299,788          | \$ 3,235,087          | \$ 3,171,654          | \$ 3,109,464          |
| State Revenue in Lieu Taxes:                           |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| Tier I*  | \$ 1,163,925         | \$ 1,141,103         | \$ 1,118,728          | \$ 1,096,792          | \$ 1,075,286          | \$ 1,054,202          | \$ 1,033,532          | \$ 1,013,266          | \$ 993,398            |
| Tier II*   | \$ 8,689,182         | \$ 8,779,456         | \$ 8,866,801          | \$ 8,953,916          | \$ 9,040,780          | \$ 9,127,442          | \$ 9,218,428          | \$ 9,305,316          | \$ 9,391,900          |
| Tier III   | \$ 534,645           | \$ 629,125           | \$ 629,125            | \$ 629,125            | \$ 629,125            | \$ 629,125            | \$ 629,125            | \$ 629,125            | \$ 629,125            |
| Other  | \$ 37,408            | \$ 47,285            | \$ 47,285             | \$ 47,285             | \$ 47,285             | \$ 47,285             | \$ 47,285             | \$ 47,285             | \$ 47,285             |
| <b>Revenue from Other State Sources</b>                | <b>\$ 62,477,242</b> | <b>\$ 62,715,605</b> | <b>\$ 63,715,327</b>  | <b>\$ 65,004,128</b>  | <b>\$ 66,105,327</b>  | <b>\$ 67,012,350</b>  | <b>\$ 67,931,974</b>  | <b>\$ 68,571,049</b>  | <b>\$ 69,159,919</b>  |
| <b>Total</b>   | <b>\$ 92,261,610</b> | <b>\$ 93,248,502</b> | <b>\$ 94,946,860</b>  | <b>\$ 96,386,335</b>  | <b>\$ 97,640,688</b>  | <b>\$ 98,693,017</b>  | <b>\$ 99,743,416</b>  | <b>\$ 100,514,446</b> | <b>\$ 101,236,584</b> |
| <b>Expenditures</b>                                    |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| <b>Instruction</b>                                     |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| <b>General Instruction:</b>                            |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| Kindergarten   | \$ 3,736,623         | \$ 3,700,304         | \$ 4,176,923          | \$ 4,231,920          | \$ 4,361,236          | \$ 4,484,441          | \$ 4,593,799          | \$ 4,699,879          | \$ 4,803,881          |
| Primary  | \$ 9,286,280         | \$ 9,212,255         | \$ 9,053,643          | \$ 9,081,961          | \$ 9,240,834          | \$ 9,468,044          | \$ 9,761,326          | \$ 10,107,811         | \$ 10,289,558         |
| Elementary (Middle)                                    | \$ 17,336,203        | \$ 18,027,803        | \$ 18,969,740         | \$ 19,496,009         | \$ 19,501,019         | \$ 19,071,449         | \$ 18,458,365         | \$ 18,135,123         | \$ 18,565,238         |
| High School  | \$ 12,525,130        | \$ 12,685,758        | \$ 12,952,638         | \$ 13,710,862         | \$ 14,301,236         | \$ 14,846,202         | \$ 15,392,791         | \$ 15,429,090         | \$ 15,289,088         |
| Other Programs   | \$ 12,910,517        | \$ 13,030,378        | \$ 13,303,759         | \$ 13,655,362         | \$ 14,202,402         | \$ 14,451,085         | \$ 14,624,096         | \$ 14,783,083         | \$ 14,783,083         |
| <b>Total</b>   | <b>\$ 55,794,752</b> | <b>\$ 56,657,097</b> | <b>\$ 58,456,703</b>  | <b>\$ 60,176,114</b>  | <b>\$ 61,359,830</b>  | <b>\$ 62,072,539</b>  | <b>\$ 62,657,366</b>  | <b>\$ 62,995,999</b>  | <b>\$ 63,730,949</b>  |
| <b>Total Support Services</b>                          |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| Payments to Other Government Units                     | \$ 35,846,932        | \$ 36,179,735        | \$ 36,938,797         | \$ 37,915,046         | \$ 38,748,419         | \$ 39,433,941         | \$ 40,124,425         | \$ 40,604,802         | \$ 41,046,241         |
| <b>Total</b>   | <b>\$ 796,484</b>    | <b>\$ 866,632</b>    | <b>\$ 866,632</b>     | <b>\$ 866,632</b>     | <b>\$ 866,632</b>     | <b>\$ 866,632</b>     | <b>\$ 866,632</b>     | <b>\$ 866,632</b>     | <b>\$ 866,632</b>     |
| <b>Total Expenditures</b>                              | <b>\$ 92,438,169</b> | <b>\$ 93,703,465</b> | <b>\$ 96,262,132</b>  | <b>\$ 98,957,793</b>  | <b>\$ 100,974,882</b> | <b>\$ 102,373,113</b> | <b>\$ 103,648,424</b> | <b>\$ 104,467,433</b> | <b>\$ 105,643,722</b> |
| <b>Interfund Transfers</b>                             |                      |                      |                       |                       |                       |                       |                       |                       |                       |
| Transfer (to) from Special Revenue                     | \$ -                 | \$ -                 | \$ -                  | \$ -                  | \$ -                  | \$ -                  | \$ -                  | \$ -                  | \$ -                  |
| Transfer (to) from Pupil Activity                      | \$ (190,225)         | \$ (209,196)         | \$ (209,196)          | \$ (209,196)          | \$ (209,196)          | \$ (209,196)          | \$ (209,196)          | \$ (209,196)          | \$ (209,196)          |
| Transfer (to) from Special Revenue EIA Fund            | \$ 2,599,860         | \$ 2,259,832         | \$ 2,259,832          | \$ 2,259,832          | \$ 2,259,832          | \$ 2,259,832          | \$ 2,259,832          | \$ 2,259,832          | \$ 2,259,832          |
| Transfer (to) from Food Service Fund (Excl. Indirects) | \$ 1,188             | \$ 238               | \$ 238                | \$ 238                | \$ 238                | \$ 238                | \$ 238                | \$ 238                | \$ 238                |
| Transfer (to) from Other Funds Indirect Costs          | \$ 557,527           | \$ 579,239           | \$ 579,239            | \$ 579,239            | \$ 579,239            | \$ 579,239            | \$ 579,239            | \$ 579,239            | \$ 579,239            |
| <b>Total</b>   | <b>\$ 2,968,351</b>  | <b>\$ 2,630,113</b>  | <b>\$ 2,630,113</b>   | <b>\$ 2,630,113</b>   | <b>\$ 2,630,113</b>   | <b>\$ 2,630,113</b>   | <b>\$ 2,630,113</b>   | <b>\$ 2,630,113</b>   | <b>\$ 2,630,113</b>   |
| <b>Net Revenue (Excl. Interfund Transfers)</b>         | <b>\$ (176,559)</b>  | <b>\$ (454,963)</b>  | <b>\$ (1,315,272)</b> | <b>\$ (2,571,458)</b> | <b>\$ (3,334,194)</b> | <b>\$ (3,680,095)</b> | <b>\$ (3,905,008)</b> | <b>\$ (3,952,987)</b> | <b>\$ (4,407,138)</b> |
| <b>Net Revenue (Incl. Interfund Transfers)</b>         | <b>\$ 2,791,792</b>  | <b>\$ 2,175,150</b>  | <b>\$ 1,314,841</b>   | <b>\$ 58,655</b>      | <b>\$ (704,081)</b>   | <b>\$ (1,049,983)</b> | <b>\$ (1,274,895)</b> | <b>\$ (1,322,874)</b> | <b>\$ (1,777,025)</b> |

\*Tier I & II are assumed constant and not increased with annual inflation. Therefore the real (inflation adjusted) value is declining over time at an assumed 2% rate of inflation.

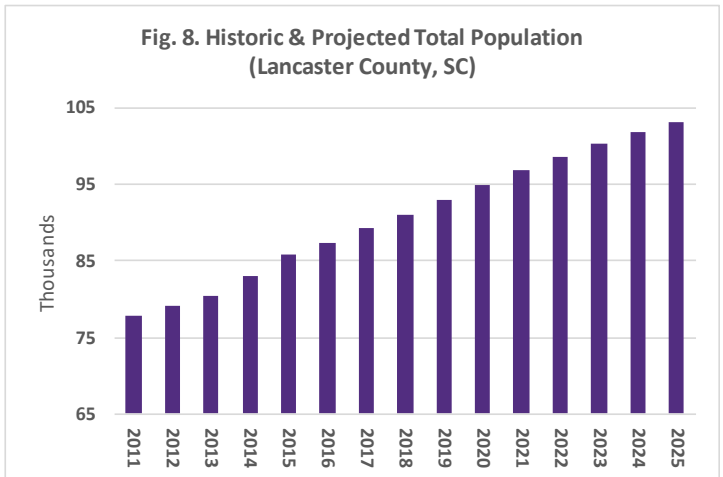
## VI. Analysis of Lancaster County Government

### A. Projections for Indicators

The analysis of Lancaster County government’s future revenue and expenditure streams utilized CAFRs published by the county between the fiscal years ending 2011-2017. These historic revenue and expenditure data were calibrated to parameters generated by the REMI model. Because of the difference in the types of spending items and revenue sources between county government and school districts, different indicators were used in the county model than used in the school district model. Table 4 presents the parameter to which each budget item is calibrated.

The most common parameter used in the analysis, particularly for spending items, was total population, as a great many of local government service costs are determined by the size of the population served; historic and projected population numbers for the county are presented in Figure 8. Certain other expenditure items, such as finance and vehicle and building maintenance, are calibrated to the number of local government employees predicted by the REMI model, as these items are expected to be largely dependent on the size of the county government itself.

Ad valorem tax revenue was calibrated to both residential and non-residential actual capital stock (i.e., property values); note that county government faces no restriction from taxing owner-occupied housing units as does the school district. “Other local taxes” consists primarily of local sales taxes, and is thus calibrated to personal income, a determinant of the



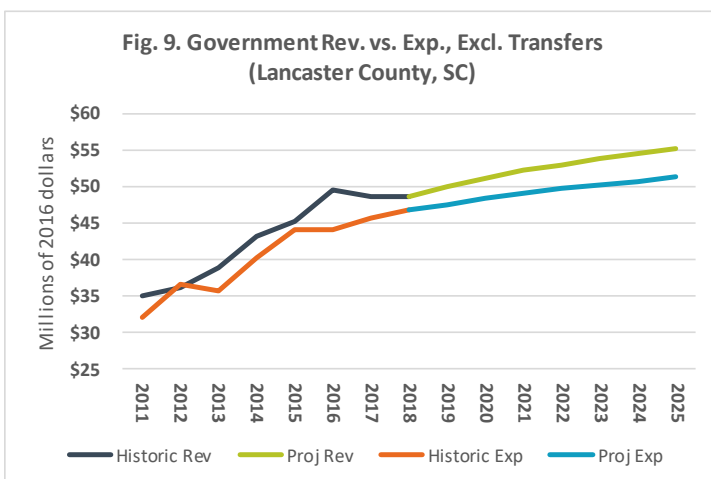
amount of taxable consumer spending occurring in the county.<sup>4</sup> For the sake of conservatism, the item “contributions and donations” was excluded from the analysis.

As with school district projections, some items not showing a clear trend or that were relatively flat over the observed historic period were projected by averaging historic values; again, where applicable, these averages were calculated so as to project an appropriately conservative model.

### B. Findings

Projections for county revenue and expenditures are presented in Figure 9. Current budget surpluses are predicted to continue and slightly expand through 2025.

While growth in county population will increase demand on local government services and thereby cost of operation for county government, certain revenue items, such as intergovernmental revenue, charges for services, and revenue from fines, can also be expected to grow with population. In addition, economic growth projected for the next several years is expected to increase revenue from licensing and permitting. Finally, because county government is not bound by the restriction on taxing owner-occupied property as is the school district, the growth in both



4. Personal Consumption Expenditures (PCE) were also considered for this item; however, statistical analysis indicated a slightly better goodness of fit for personal income relative to PCE.

Table 4. Methodology for Fiscal Projections

| Budget Item:                        | Calibrated to REMI Projection for:          |
|-------------------------------------|---|
| <b>Revenues</b>                     |   |
| Property taxes                      | Residential + Non-Residential Capital Stock |
| Other local taxes                   | Personal Income                             |
| Licenses and permits                | Output (Total Sales)                        |
| Intergovernmental                   | Total Population                            |
| Charges for services                | Total Population                            |
| Fines and forfeitures               | Total Population                            |
| Interest revenue                    | Averaged over 2011-2017 historic values     |
| Contributions and donations         | <i>Excluded from forecast</i>               |
| Other revenues                      | Averaged over 2011-2017 historic values     |
| <b>Expenditures</b>                 |   |
| <i>General Government</i>           |   |
| Non-departmental exp                | Local Government Employment                 |
| Direct assistance to other agencies | Averaged over 2015-2017 historic values     |
| County council                      | Averaged over 2015-2017 historic values     |
| Administrator                       | Averaged over 2015-2017 historic values     |
| Legal team                          | Averaged over 2016-2017 historic values     |
| Finance                             | Local Government Employment                 |
| Human resources                     | Averaged over 2014-2017 historic values     |
| Risk management                     | Averaged over 2014-2017 historic values     |
| Management information services     | Local Government Employment                 |
| GIS                                 | Averaged over 2011-2017 historic values     |
| Building                            | Averaged over 2015-2017 historic values     |
| Zoning                              | Averaged over 2016-2017 historic values     |
| Planning                            | Output (Total Sales)                        |
| Assessor                            | Total Population                            |
| Auditor                             | Total Population                            |
| Treasurer                           | Averaged over 2011-2017 historic values     |
| Delinquent tax collector            | Averaged over 2011-2017 historic values     |
| Voter reg. & elections              | Averaged over 2015-2017 historic values     |
| Register of deeds                   | Averaged over 2013-2017 historic values     |
| Vehicle maintenance                 | Local Government Employment                 |
| Building maintenance                | Local Government Employment                 |
| <i>Administration of justice</i>    |   |
| Circuit court                       | Averaged over 2016-2017 historic values     |
| Clerk of court                      | Averaged over 2016-2017 historic values     |
| Family court                        | Averaged over 2016-2017 historic values     |
| Probate court                       | Averaged over 2016-2017 historic values     |
| Magistrate court                    | Averaged over 2016-2017 historic values     |

Table 4 (cont'd). Methodology for Fiscal Projections

| Budget Item:                       | Calibrated to REMI Projection for:      |
|------------------------------------|---|
| <i>Public safety</i>               |   |
| Coroner                            | Total Population                        |
| Sheriff                            | Total Population                        |
| Detention center                   | Special Populations                     |
| Communications                     | Total Population                        |
| Emergency management               | Total Population                        |
| Fire commission                    | Total Population                        |
| <i>Public works</i>                |   |
| Roads & bridges                    | Total Population                        |
| Landfill                           | Total Population                        |
| Solid waste                        | Total Population                        |
| <i>Public health &amp; welfare</i> |   |
| EMS                                | Total Population                        |
| Animal control                     | Total Population                        |
| Health services                    | Total Population                        |
| Social services & food stamps      | Total Population                        |
| DSS Family Independence            | Total Population                        |
| Veteran affairs                    | Total Population                        |
| <i>Culture &amp; Recreation</i>    |   |
| Recreation                         | Total Population                        |
| Library                            | Averaged over 2014-2017 historic values |
| <i>Economic Development</i>        |   |
| Economic development               | Averaged over 2011-2017 historic values |
| <i>Debt service</i>                |   |
| Principal                          | Averaged over 2011-2017 historic values |
| Interest and other charges         | Averaged over 2011-2017 historic values |

residential and non-residential property values is predicted to increase property tax revenue. As a result, revenue sources are projected to increase at a faster rate than expenditures, creating continuing budget surpluses over the next several years. Detailed findings are reported in Table 5. Net revenue (total revenue minus total expenditures) is presented both with and without debt service included in the expenditure total.

It should be noted that there are no millage or other tax rate increases assumed in the model; however, it is assumed that the county will be able to capture projected increases in property value in the year in which they occur. While property value reassessment does not occur in every year, most of the capital stock appreciation in the REMI model is based upon projected improvements, e.g., construction of new homes or commercial or manufacturing facilities.

Table 5. Projected Revenue and Expenditures, Lancaster County Government

|                                     | Projected Values  |                   |                   |                   |                   |                   |                   |                   |                   |  |
|-------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--|
|                                     | 2017              | 2018              | 2019              | 2020              | 2021              | 2022              | 2023              | 2024              | 2025              |  |
| <b>Revenues</b>                     |                   |                   |                   |                   |                   |                   |                   |                   |                   |  |
| Property taxes                      | 29,729,545        | 30,474,525        | 31,147,638        | 31,653,237        | 32,167,746        | 32,661,775        | 33,114,797        | 33,533,548        | 33,924,734        |  |
| Other local taxes                   | 2,330,312         | 2,420,664         | 2,526,150         | 2,613,977         | 2,693,190         | 2,766,825         | 2,818,622         | 2,868,984         | 2,935,475         |  |
| Licenses and permits                | 5,878,104         | 6,198,438         | 6,565,313         | 6,897,035         | 7,115,593         | 7,234,502         | 7,335,579         | 7,434,410         | 7,552,459         |  |
| Intergovernmental                   | 4,568,607         | 4,737,646         | 4,836,836         | 4,938,819         | 5,039,841         | 5,130,860         | 5,215,678         | 5,294,688         | 5,368,126         |  |
| Charges for services                | 4,517,985         | 4,475,344         | 4,569,043         | 4,665,380         | 4,760,808         | 4,846,788         | 4,926,910         | 5,001,546         | 5,070,918         |  |
| Fines and forfeitures               | 1,028,743         | 1,025,141         | 1,046,604         | 1,068,671         | 1,090,531         | 1,110,226         | 1,128,579         | 1,145,675         | 1,161,566         |  |
| Interest revenue                    | 218,708           | 80,544            | 80,544            | 80,544            | 80,544            | 80,544            | 80,544            | 80,544            | 80,544            |  |
| Contributions and donations         | 117,099           | 315,691           | 315,691           | 315,691           | 315,691           | 315,691           | 315,691           | 315,691           | 315,691           |  |
| Other revenues                      | 198,397           | 221,205           | 221,205           | 221,205           | 221,205           | 221,205           | 221,205           | 221,205           | 221,205           |  |
| <b>Total revenues</b>               | <b>48,587,501</b> | <b>49,949,197</b> | <b>51,309,024</b> | <b>52,454,559</b> | <b>53,485,149</b> | <b>54,368,415</b> | <b>55,157,604</b> | <b>55,896,290</b> | <b>56,630,717</b> |  |
| <b>Expenditures</b>                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |  |
| <b>General Government</b>           |                   |                   |                   |                   |                   |                   |                   |                   |                   |  |
| Non-departmental exp                | 1,357,008         | 1,374,328         | 1,403,102         | 1,432,686         | 1,461,991         | 1,488,394         | 1,512,999         | 1,535,918         | 1,557,222         |  |
| Direct assistance to other agencies | 956,872           | 820,260           | 820,260           | 820,260           | 820,260           | 820,260           | 820,260           | 820,260           | 820,260           |  |
| County council                      | 1,019,621         | 1,208,655         | 1,208,655         | 1,208,655         | 1,208,655         | 1,208,655         | 1,208,655         | 1,208,655         | 1,208,655         |  |
| Administrator                       | 511,278           | 519,850           | 519,850           | 519,850           | 519,850           | 519,850           | 519,850           | 519,850           | 519,850           |  |
| Legal team                          | 228,363           | 227,639           | 227,639           | 227,639           | 227,639           | 227,639           | 227,639           | 227,639           | 227,639           |  |
| Finance                             | 608,222           | 643,453           | 665,671           | 678,529           | 688,408           | 691,848           | 695,608           | 697,332           | 699,044           |  |
| Human resources                     | 210,166           | 199,843           | 199,843           | 199,843           | 199,843           | 199,843           | 199,843           | 199,843           | 199,843           |  |
| Risk management                     | 98,559            | 99,465            | 99,465            | 99,465            | 99,465            | 99,465            | 99,465            | 99,465            | 99,465            |  |
| Management information serv.        | 1,018,584         | 1,019,251         | 1,054,445         | 1,074,813         | 1,090,461         | 1,095,910         | 1,101,867         | 1,104,598         | 1,107,310         |  |
| GIS                                 | 131,007           | 155,961           | 155,961           | 155,961           | 155,961           | 155,961           | 155,961           | 155,961           | 155,961           |  |
| Building                            | 747,827           | 755,368           | 755,368           | 755,368           | 755,368           | 755,368           | 755,368           | 755,368           | 755,368           |  |
| Zoning                              | 341,742           | 356,671           | 356,671           | 356,671           | 356,671           | 356,671           | 356,671           | 356,671           | 356,671           |  |
| Planning                            | 491,952           | 518,761           | 549,466           | 577,228           | 595,520           | 605,471           | 613,931           | 622,202           | 632,082           |  |
| Assessor                            | 831,750           | 814,457           | 831,510           | 849,042           | 866,408           | 882,056           | 896,637           | 910,220           | 922,844           |  |
| Auditor                             | 376,951           | 399,502           | 407,866           | 416,466           | 424,984           | 432,659           | 439,812           | 446,474           | 452,667           |  |
| Treasurer                           | 362,780           | 376,595           | 376,595           | 376,595           | 376,595           | 376,595           | 376,595           | 376,595           | 376,595           |  |
| Delinquent tax collector            | 291,305           | 293,114           | 293,114           | 293,114           | 293,114           | 293,114           | 293,114           | 293,114           | 293,114           |  |
| Voter reg. & elections              | 363,164           | 320,255           | 320,255           | 320,255           | 320,255           | 320,255           | 320,255           | 320,255           | 320,255           |  |
| Register of deeds                   | 310,572           | 318,153           | 318,153           | 318,153           | 318,153           | 318,153           | 318,153           | 318,153           | 318,153           |  |
| Vehicle maintenance                 | 516,924           | 550,843           | 569,864           | 580,871           | 589,328           | 592,273           | 595,492           | 596,968           | 598,434           |  |
| Building maintenance                | 1,480,296         | 1,665,050         | 1,722,544         | 1,755,816         | 1,781,379         | 1,790,281         | 1,800,012         | 1,804,474         | 1,808,904         |  |
| Misc (farmers' mkt, etc.)           | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 |  |
| <b>Total</b>                        | <b>12,254,942</b> | <b>12,637,473</b> | <b>12,856,295</b> | <b>13,017,279</b> | <b>13,150,307</b> | <b>13,230,720</b> | <b>13,308,185</b> | <b>13,370,015</b> | <b>13,430,335</b> |  |



Table 5 (cont'd). Projected Revenue and Expenditures, Lancaster County Government

|                                    | Projected Values |            |            |            |            |            |            |            |            |  |
|------------------------------------|------------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
|                                    | 2017             | 2018       | 2019       | 2020       | 2021       | 2022       | 2023       | 2024       | 2025       |  |
| <i>Administration of justice</i>   |                  |            |            |            |            |            |            |            |            |  |
| Circuit court                      | 50,449           | 51,984     | 51,984     | 51,984     | 51,984     | 51,984     | 51,984     | 51,984     | 51,984     |  |
| Clerk of court                     | 350,492          | 411,353    | 411,353    | 411,353    | 411,353    | 411,353    | 411,353    | 411,353    | 411,353    |  |
| Family court                       | 333,801          | 335,053    | 335,053    | 335,053    | 335,053    | 335,053    | 335,053    | 335,053    | 335,053    |  |
| Probate court                      | 417,110          | 402,953    | 402,953    | 402,953    | 402,953    | 402,953    | 402,953    | 402,953    | 402,953    |  |
| Magistrate court                   | 866,605          | 862,078    | 862,078    | 862,078    | 862,078    | 862,078    | 862,078    | 862,078    | 862,078    |  |
| <i>Total</i>                       | 2,018,457        | 2,063,421  | 2,063,421  | 2,063,421  | 2,063,421  | 2,063,421  | 2,063,421  | 2,063,421  | 2,063,421  |  |
| <i>Public safety</i>               |                  |            |            |            |            |            |            |            |            |  |
| Coroner                            | 487,428          | 502,801    | 513,328    | 524,152    | 534,873    | 544,533    | 553,534    | 561,920    | 569,714    |  |
| Sheriff                            | 8,139,901        | 8,198,642  | 8,370,294  | 8,546,778  | 8,721,599  | 8,879,111  | 9,025,891  | 9,162,620  | 9,289,707  |  |
| Detention center                   | 2,137,240        | 2,049,498  | 2,049,498  | 2,049,498  | 2,049,498  | 2,049,498  | 2,049,498  | 2,049,498  | 2,049,498  |  |
| Communications                     | 1,495,446        | 1,538,712  | 1,570,927  | 1,604,050  | 1,636,860  | 1,666,421  | 1,693,969  | 1,719,630  | 1,743,482  |  |
| Emergency management               | 396,460          | 397,157    | 405,472    | 414,021    | 422,490    | 430,120    | 437,230    | 443,854    | 450,010    |  |
| Fire commission                    | 2,216,859        | 2,204,904  | 2,251,068  | 2,298,531  | 2,345,546  | 2,387,907  | 2,427,381  | 2,464,152  | 2,498,331  |  |
| Rescue squad                       | -                | -          | -          | -          | -          | -          | -          | -          | -          |  |
| Indian Land rescue squad           | -                | -          | -          | -          | -          | -          | -          | -          | -          |  |
| <i>Total</i>                       | 14,873,335       | 14,891,714 | 15,160,588 | 15,437,029 | 15,710,866 | 15,957,590 | 16,187,503 | 16,401,674 | 16,600,741 |  |
| <i>Public works</i>                |                  |            |            |            |            |            |            |            |            |  |
| Roads & bridges                    | 2,356,829        | 2,579,834  | 2,633,847  | 2,689,381  | 2,744,391  | 2,793,954  | 2,840,141  | 2,883,165  | 2,923,155  |  |
| Landfill                           | 17,943           | 39,518     | 40,346     | 41,196     | 42,039     | 42,798     | 43,506     | 44,165     | 44,777     |  |
| Solid waste                        | 3,115,062        | 2,858,532  | 2,918,380  | 2,979,913  | 3,040,866  | 3,095,784  | 3,146,960  | 3,194,632  | 3,238,942  |  |
| <i>Total</i>                       | 5,489,833        | 5,477,884  | 5,592,573  | 5,710,490  | 5,827,296  | 5,932,536  | 6,030,607  | 6,121,962  | 6,206,874  |  |
| <i>Public health &amp; welfare</i> |                  |            |            |            |            |            |            |            |            |  |
| EMS                                | 6,122,244        | 6,458,753  | 6,593,978  | 6,733,009  | 6,870,730  | 6,994,815  | 7,110,446  | 7,218,159  | 7,318,276  |  |
| Animal control                     | 180,441          | 255,291    | 260,636    | 266,131    | 271,575    | 276,480    | 281,050    | 285,308    | 289,265    |  |
| Environmental health               | -                | -          | -          | -          | -          | -          | -          | -          | -          |  |
| Health services                    | 81,975           | 90,204     | 92,093     | 94,035     | 95,958     | 97,691     | 99,306     | 100,810    | 102,209    |  |
| Juvenile drug court                | -                | -          | -          | -          | -          | -          | -          | -          | -          |  |
| Social services & food stamps      | 39,413           | 54,605     | 55,748     | 56,924     | 58,088     | 59,137     | 60,115     | 61,025     | 61,872     |  |
| DSS Family Independence            | 57,228           | 59,904     | 61,158     | 62,447     | 63,725     | 64,876     | 65,948     | 66,947     | 67,876     |  |
| Veteran affairs                    | 173,669          | 173,509    | 177,141    | 180,876    | 184,576    | 187,909    | 191,016    | 193,909    | 196,599    |  |
| <i>Total</i>                       | 6,654,970        | 7,092,265  | 7,240,754  | 7,393,422  | 7,544,652  | 7,680,908  | 7,807,880  | 7,926,158  | 8,036,096  |  |
| <i>Culture &amp; Recreation</i>    |                  |            |            |            |            |            |            |            |            |  |
| Recreation                         | 2,410,202        | 2,441,074  | 2,492,182  | 2,544,728  | 2,596,780  | 2,643,677  | 2,687,380  | 2,728,090  | 2,765,929  |  |
| Library                            | 1,213,949        | 1,212,322  | 1,212,322  | 1,212,322  | 1,212,322  | 1,212,322  | 1,212,322  | 1,212,322  | 1,212,322  |  |
| <i>Total</i>                       | 3,624,151        | 3,653,396  | 3,704,504  | 3,757,050  | 3,809,102  | 3,856,000  | 3,899,702  | 3,940,412  | 3,978,251  |  |

Table 5 (cont'd). Projected Revenue and Expenditures, Lancaster County Government

|   | Projected Values  |                   |                   |                   |                   |                   |                   |                   |                   |  |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--|
|   | 2017              | 2018              | 2019              | 2020              | 2021              | 2022              | 2023              | 2024              | 2025              |  |
| <i>Economic Development</i>                           |                   |                   |                   |                   |                   |                   |                   |                   |                   |  |
| Economic development                                  | 349,609           | 479,038           | 479,038           | 479,038           | 479,038           | 479,038           | 479,038           | 479,038           | 479,038           |  |
| <i>Debt service</i>                                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |  |
| Principal   | 359,826           | 372,575           | 372,575           | 372,575           | 372,575           | 372,575           | 372,575           | 372,575           | 372,575           |  |
| Interest and other charges                            | 60,613            | 88,700            | 88,700            | 88,700            | 88,700            | 88,700            | 88,700            | 88,700            | 88,700            |  |
| <i>Total</i>  | 420,439           | 461,275           | 461,275           | 461,275           | 461,275           | 461,275           | 461,275           | 461,275           | 461,275           |  |
| <b>Total Expenditures</b>                             | <b>45,685,735</b> | <b>46,756,466</b> | <b>47,558,448</b> | <b>48,319,005</b> | <b>49,045,957</b> | <b>49,661,488</b> | <b>50,237,610</b> | <b>50,763,954</b> | <b>51,256,031</b> |  |
| <b>Total Revenue minus Total Expenditures</b>         | <b>2,901,766</b>  | <b>3,192,731</b>  | <b>3,750,576</b>  | <b>4,135,554</b>  | <b>4,439,192</b>  | <b>4,706,927</b>  | <b>4,919,993</b>  | <b>5,132,336</b>  | <b>5,374,686</b>  |  |
| <b>Total Rev. minus Total Exp. (excl. Debt Serv.)</b> | <b>3,322,204</b>  | <b>3,654,006</b>  | <b>4,211,851</b>  | <b>4,596,829</b>  | <b>4,900,467</b>  | <b>5,168,202</b>  | <b>5,381,268</b>  | <b>5,593,611</b>  | <b>5,835,961</b>  |  |

## VII. Conclusion

There is a divergence observed between our projections for the fiscal position of Lancaster County government and the Lancaster County School District. The county government is projected to continue to enjoy its current budget surpluses with some expansion in the size of the surplus predicted. The school district is projected to see budget shortfalls beginning in FY 2021.

While both entities are impacted through population growth, the school district specifically affected by growth in school-age population while the county is impacted by growth in overall population, each is affected differently by the projected growth in the number of county residents. One determining factor for this divergence appears to be South Carolina Act 388 of 2006. Act 388 restricts school districts from levying property tax on owner-occupied residential property for the purpose of raising general fund revenue. Because growth in residential capital stock is predicted to outstrip non-residential stock in the county proportionally, this places the school district in a disadvantageous fiscal position, given current school property tax rates, as it is this growth in residential population that largely determines the demand placed on the district to provide education services.

A second factor appears to be the observed historical responsiveness of expenditures between the two entities to changes in population. School district expenditures appear to be more elastic with respect to increases in school-age population than are county expenditures with respect to changes in total population. This is intuitive, however, given that public schools must provide education services to nearly all school-age county residents (the primary exceptions being those attending private schools or who are homeschooled), creating a much steeper increase in demand with respect to population relative to county government services, many of which only some fraction of new residents will avail themselves or that are common goods that incur very little additional cost on a per-person basis.