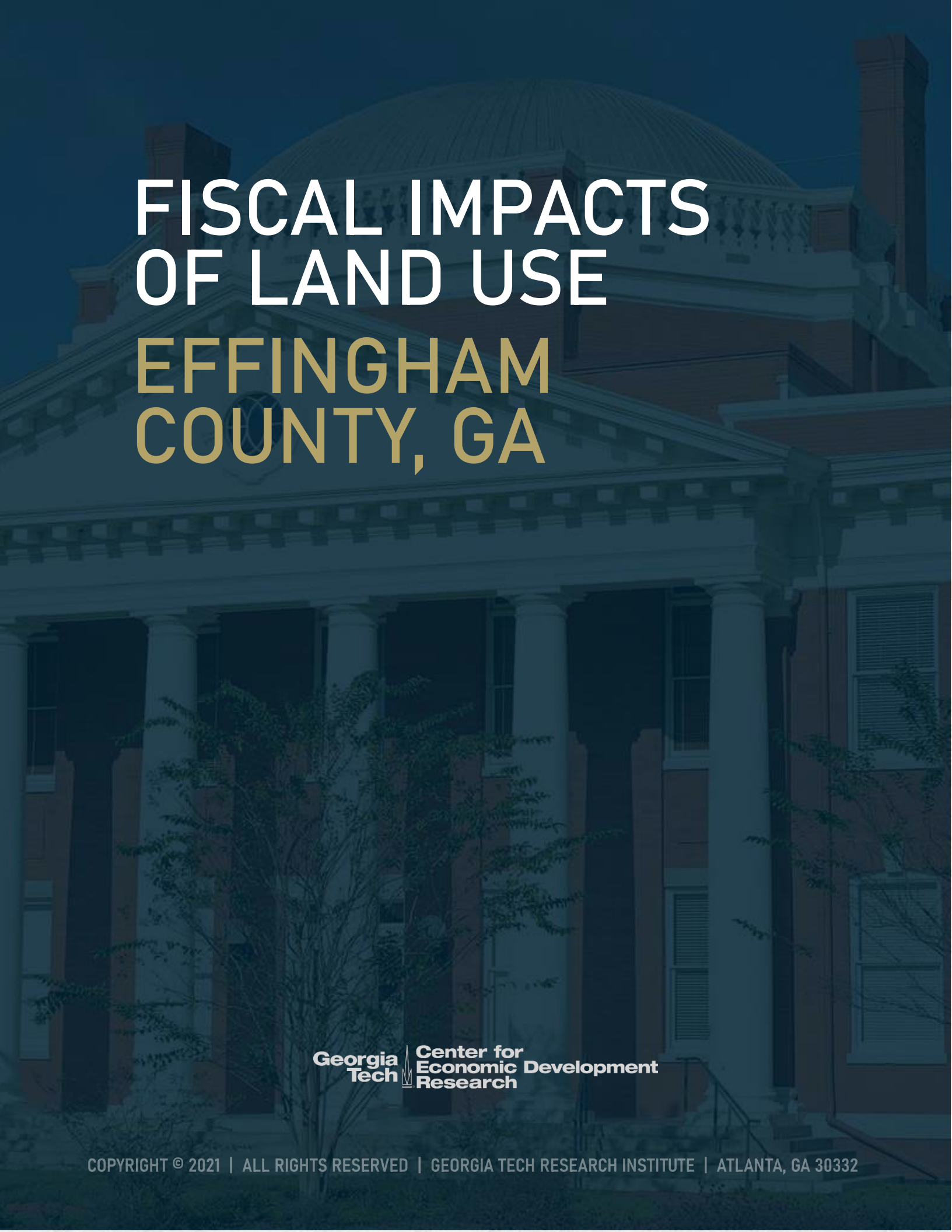

FISCAL IMPACTS OF LAND USE

EFFINGHAM COUNTY, GA

Georgia Tech Center for Economic Development Research

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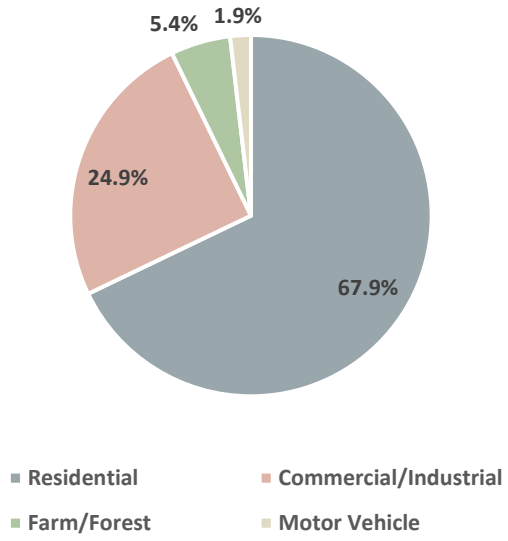
1. INTRODUCTION

Effingham County

Effingham County is located along the southeastern border of the State of Georgia and is part of the Savannah metropolitan area. Since 2000, the county population has grown more than 70 percent making it the 10th fastest growing county in Georgia over the last 20 years. If counties in the Atlanta Metropolitan Statistical Area (MSA) were excluded, Effingham would be the third fastest growing county in the state. Effingham County Schools educate more than 12,300 students, and that number has also been growing rapidly as the county population explodes. In addition to population growth, the county is commercializing due to its proximity to Savannah. Total employment in Effingham has grown 84 percent since 2000 – an even faster growth rate than population.

The county tax digest reflects that growth in population. Even with the growth in employment, residential property makes up more than two-thirds of the county's tax digest (Figure 1). The Effingham County Industrial Development Authority reached out to the Center for Economic Development Research (CEDR) at Georgia Tech for a better understanding of both the benefits, and costs, of this growth. Simply put, increasing the tax base of a local government through development does not always translate into an improved financial position. There is a growing body of empirical evidence that shows that commercial and/or industrial development can improve the financial situation of a local government. However, residential development, with its demands for local government services, often has the opposite effect. The American Farmland Trust (www.farmland.org) has collected more than 150 studies across the country and every one shows that the average cost of providing local government services exceeds the average revenue generated by residential development.[1] Across all studies, the median results show that residential property costs $1.16 for every $1 generated, while commercial/industrial property costs only $0.30 for every $1 generated (Figure 2).

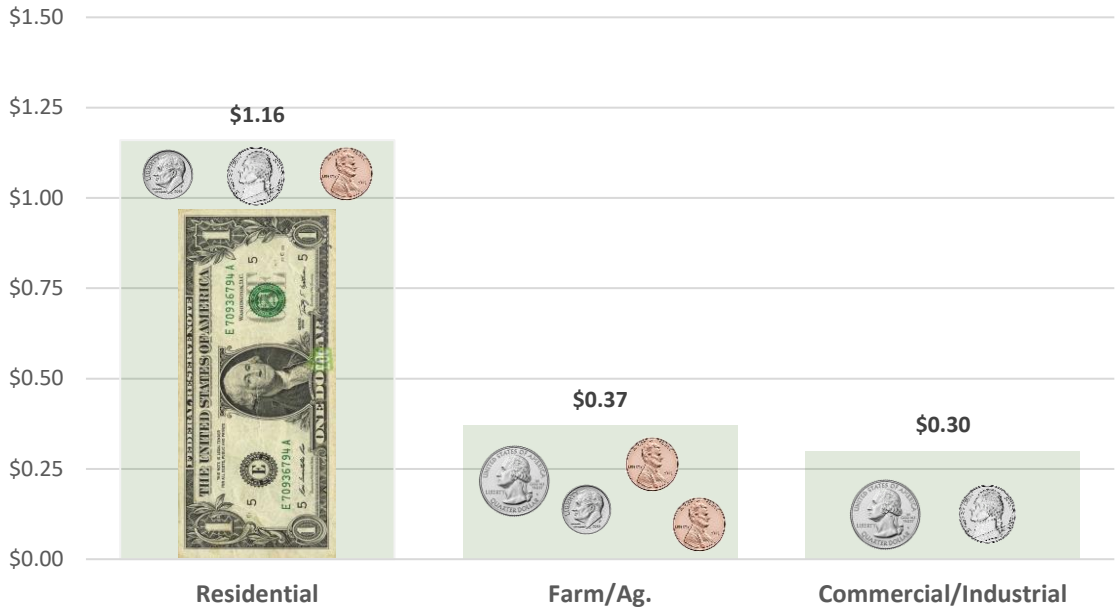
FIGURE 1: NET TAX DIGEST (2019)



Source: Georgia Department of Revenue Tax Consolidation Summaries

[1] American Farmland Trust (2016). *Cost of Community Service Studies*. https://farmlandinfo.org/publications/cost-of-community-services-studies/

FIGURE 2: MEDIAN COST OF SERVICE RESULTS (EXPENDITURES PER $1 OF REVENUE)



Source: American Farmland Trust (2016). *Cost of Community Service Studies*. https://farmlandinfo.org/publications/cost-of-community-services-studies/

Cost of Community Service Studies

Cost of Community Service (COCS) studies involve organizing the revenues and expenditures of a local government to different classes of land use or development such as residential, commercial, industrial, farm, etc. For example, a county's expenditures on senior citizens' programs would be classified as all benefiting residential land use. The cost of the county extension service would most likely be allocated to agricultural land. These examples are easy, clear situations, but most expenditures benefit multiple land uses. For example, the road network would be allocated across all types of development, as would the court system, the fire department, the sheriff, etc. The resulting totals for revenues generated and expenses incurred can be presented as a ratio of expenditures-to-revenues for different land use types. To the extent that ratio is over 1.0 (e.g., expenditures exceed revenues) that land use does not pay for the benefit it receives from the local government.

In cases where expenses are difficult to allocate to specific land use categories, the expert knowledge of county staff is used to estimate service expenditures by land use category. For this study, the senior staff for the Effingham County Board of Commissioners provided their expert knowledge in the allocation of expenditures. In some cases, the acreage, population share, and/or property value in each land use category are used in determining some allocations. For "back-office" and administrative expenses, (i.e., finance, human resources, legal, etc.) the ratio of all other expenses are calculated and then the aggregate ratio is applied to these departments.

It is very important to note that COCS studies look at average revenues and expenditures for a particular year, not changes at the margin. As such, these studies should not be used to predict the impact of future decisions. Even so, they can provide insight and allow for more informed decision-making on such policies as tax abatements for farm/forestland, or commercial development. That said, COCS results can support educated guesses as to the likely marginal cost of development, as well as how land use transition might impact the financial situation of the local government. Finally, these studies look at the ongoing operational cost of growth, not one-time capital expenditure impacts.[2]

[2] *The Fiscal Impacts of Land Uses in Lee County: Revenue and Expenditure Streams by Land Use Category*, Jeffrey H. Dorfman, May 2018. Used with permission.

2. ANALYSIS RESULTS

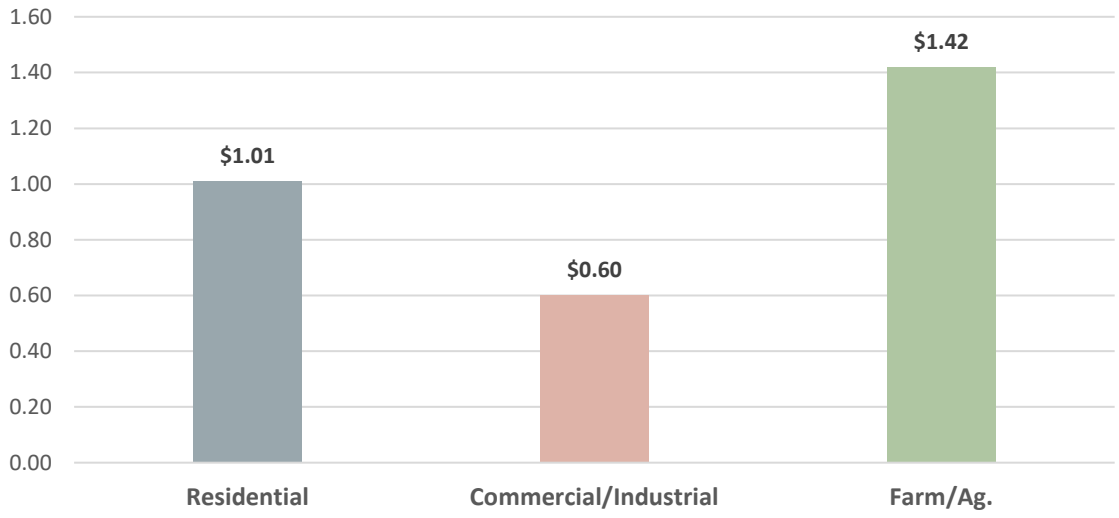
Expenditure/Revenue Ratios

When this study was commissioned, the most recent audited financial statements for Effingham County were for fiscal year 2019 (FY 2019). As such, this study uses financial information for FY 2019 from the *Effingham County Annual Financial Report*, as well as the 2019 tax digest submitted to the Georgia Department of Revenue. For the schools, the data was collected from that Georgia Department of Education School Systems Revenue report for FY 2019.

The land use categories used in this study were residential, commercial/industrial, and farm/forest. Revenues and expenditures were allocated to these land uses based on various county records as well as surveys and interviews with county officials and service providers. All revenues were included for the funds that were a part of this study (General Fund, Special Service District, etc.) including local option sales tax (LOST). For this study, 90 percent of the LOST revenue was assumed to come from county, with the remainder allocated to local businesses (5 percent), farms (2 percent), and non-county residents (3 percent). As such, new residential development would get a significant credit for bringing in new sales tax dollars into the county.

Figure 3 below presents the results for the county government only (no schools). As expected, the expenditure-to-revenue ratio for residential land use is greater than 1.0 meaning that residential property does not cover the costs of the services the county provides. However, it is closer to break even than the national median presented above in Figure 2 - $1.01 vs. $1.16.[3]

FIGURE 3: EXPENDITURES PER $1 OF REVENUE BY LAND USE (COUNTY GOVERNMENT ONLY)



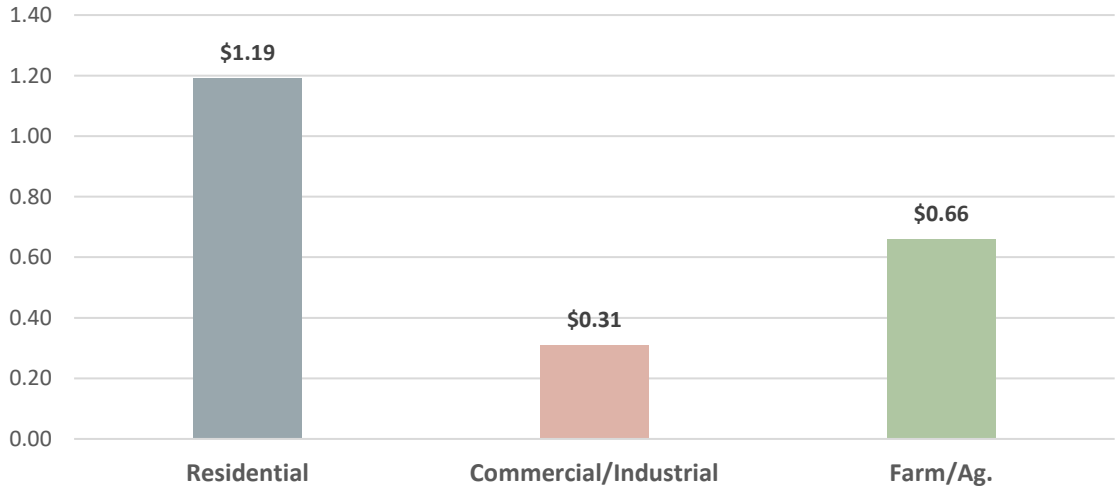
Source: Center for Economic Development Research, Georgia Tech

[3] See Appendix A for more information on this ratio.

While the residential deficit is small, keep in mind this includes only operational costs and does not include the capital expenditure impacts of residential development. What deficit there is due to residential operational service demand is made up through a surplus generated by commercial/industrial property. Although less than half the size of the residential digest (Figure 1), the expenditure-to-revenue ratio for commercial/industrial land use is only 0.6 meaning that for every $1 of revenue the county brings in from commercial and industrial property, it only costs the county $0.60 to provide services.

Once schools are included in the analysis, residential land use becomes much more of an operational cost burden generating $1.19 in service costs for every $1 of revenue (Figure 4). However, once again, revenues generated by commercial/industrial land use, as well as agricultural land, help to offset the residential service costs as they both have expenditure-to-revenue ratios well below 1.0.

FIGURE 4: EXPENDITURES PER $1 OF REVENUE BY LAND USE (COUNTY GOVERNMENT AND SCHOOLS)



Source: Center for Economic Development Research, Georgia Tech

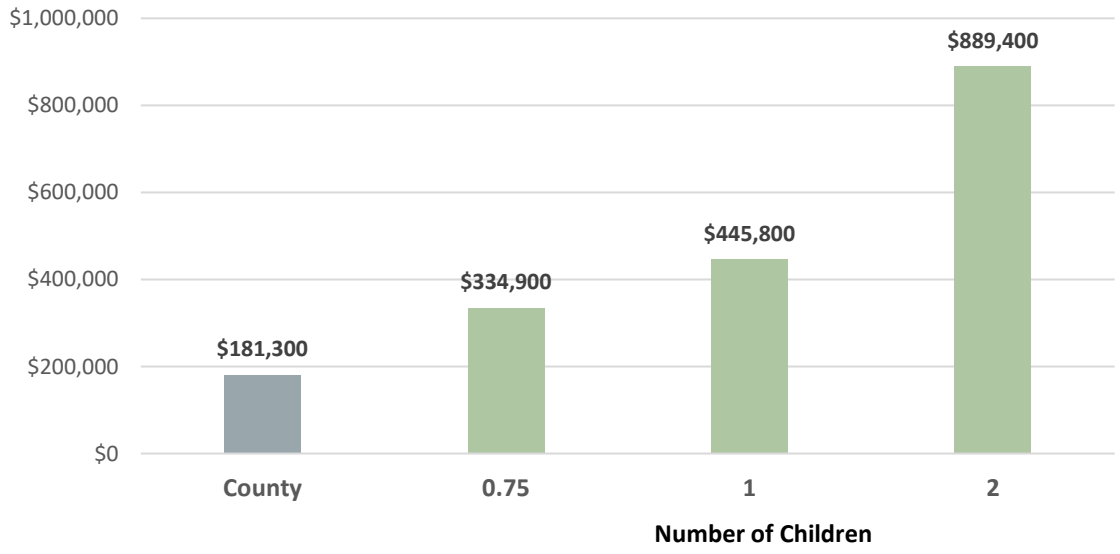
Break Even Home Values

The ratios presented above can be used to calculate the home value necessary for a county and/or school board to break even relative to the cost of providing their services. This of course assumes that the service cost is reasonably constant from house to house relative to the home value. While local government service costs will vary based on lot size, location, and, in the case of schools, the number of children in the home, they are not usually correlated with the home's value. As such, the average service cost per household can be easily calculated, as can the average non-property tax revenue per household. Using the standard county homestead exemption and the county millage rate, the home value that will generate enough revenue to equal

service cost (the break-even value) is easily calculated. Figure 5 below shows the break-even home value for Effingham County to be $181,300 after adjusting for all the business-type accounts (e.g., water, sewer, sanitation). Currently, most new homes built in Effingham County are priced more than $200,000 which means that new residents will not impose operational local government costs on existing residents. As previously mentioned, this analysis does NOT include any potential new capital costs needed for infrastructure as the county grows.

While the county government may break even on a $181,300 home, the schools do not. When evaluating the break-even home price for schools, the starting point is the average per pupil cost from local tax revenue. For this analysis, state and federal money is excluded. Adjustments are made for the average car value per home, and the local school homestead exemption. Then, given the school millage rate, a break-even home value can be calculated that will cover the local cost given the number of children in the home. Again, Figure 5 below shows the various break-even values for Effingham County given the number of children in the home. If a home has just one child that attends the local public schools, the break-even home value from the school's perspective is $445,800. While the school would break even, clearly the county budget would earn a fiscal surplus from this house. Based on data from the U.S. Census, a more realistic estimate of the average number of school-age children in a new home is between 0.65 and 0.75. The break-even value for a home in Effingham County with 0.75 students is $334,900. This is higher than the average value for new homes in Effingham County, which means that public education in Effingham County will need to be subsidized by either other land uses (which was demonstrated in Figure 4), and homeowners without children in the school system.

FIGURE 5: COUNTY AND COUNTY SCHOOLS BREAK-EVEN HOME VALUES



Source: Center for Economic Development Research, Georgia Tech. All values rounded to the nearest $100. Values do not account for dedicated capital fund revenue and expenditures.

3. CONCLUSION

The most interesting result of this analysis is that while the residential digest in Effingham County does not pay for the local government services it consumes, it does come very close ($1.01 in expenditures for every $1 in revenue). Not surprisingly, businesses pay far more than they get back in services ($0.60 in expenditures for every $1 in revenue), which not only creates a fiscal surplus for the county, but also helps to cover the residential deficit.

Once schools are included, these businesses provide an even bigger surplus ($0.31 in combined expenses for every $1 in revenue). Even with only 25 percent of the digest, the large surplus provided by commercial land use covers the combined county/school service deficit generated by the growing population ($1.19 in combined expenses for every $1 in revenue).

One of the reasons that the county residential deficit is so small is that the average new home in Effingham County is more than $200,000, which exceeds the break-even home value of $181,300. Because the new homes being built in Effingham County are, on average, paying more than their operating budget expenses, the expenditure-to-revenue ratio is being kept low. While this is a positive situation for Effingham County, new growth still demands capital expenditures (e.g., roads, traffic lights, fire stations, etc.) which could place a burden on local government finances.

It is important to note that the results of this type of analysis should not be used to promote one form of land use over another, nor should it be used to support or oppose a development project. This analysis uses countywide averages and may not reflect the cost or revenue structure of any particular development. And again, this study looks at operating costs only. A new development may have significant marginal capital costs which would either need to be financed using impact fees or spread to all residents through the tax process.

Finally, this type of analysis shows the importance of balanced growth. A county must have enough commercial/industrial development to cover the costs of their residential growth, especially once the cost of the schools is considered. Further, not only commercial land use, but also having and maintaining agricultural land is beneficial because it too generates a fiscal surplus (once schools are considered) and it provides environmental amenities and benefits to the community. Having a well-balanced tax digest can help distribute the cost of government while keeping taxes lower for everyone.[4]

[4] *The Fiscal Impacts of Land Uses in Lee County: Revenue and Expenditure Streams by Land Use Category*, Jeffrey H. Dorfman, May 2018. Used with permission.

4. REFERENCES & SPECIAL THANKS

American Farmland Trust (2016). *Cost of Community Service Studies*.

Dorfman, Jeffrey H. (2018). *The Fiscal Impacts of Land Uses in Lee County: Revenue and Expenditure Streams by Land Use Category*

Special thanks to Dr. Jeffrey Dorfman who assisted in the methodology used here and provided recent examples of his cost of community services work for use in this analysis. Dr. Dorfman is a professor in the Department of Agricultural & Applied Economics at The University of Georgia where he is also currently co-director of the Land Use Studies Initiative. From 1998-2000 he was the founding director of the Center for Agribusiness and Economic Development at The University of Georgia. He has written three books, co-authored another, authored or co-authored over 80 academic articles, and is a contributor to Forbes and RealClearMarkets.com. Dr. Dorfman currently serves as the State Fiscal Economist for the State of Georgia.

5. APPENDIX A

The residential expense-to-revenue ratio of $1.01 presented in Section 2 is much closer to break-even than is normally the case for residential property. A major reason for this is the level of non-tax revenue allocated to residential land use. For example, a $4,757,232 line item in the General Fund labeled "charges for services" was allocated 98 percent to residential land use, and the remaining 2 percent to commercial. Similarly, $1,382,253 of "fines and forfeitures" in the General Fund were allocated 100 percent to residential land use. These two examples alone represent more than 13 percent of the total non-enterprise fund revenue of the county. Without any more detail, the research team had to rely on the expert knowledge of county finance staff to estimate revenues by land use category. We have no reason to question their allocation, and we present this simply as an explanation of why the ratio is as low as it is. Tables 1 and 2 below provide the final results of both the revenue and expenditure allocations, and the resulting COCS ratios.

TABLE 1: FINAL REVENUE AND EXPENDITURE ALLOCATIONS

Revenue Allocations				
Total	**Residential**	**Commercial/Industrial**	**Farm/Forest**	**Outside**
$45,801,191	$34,411,532	$9,536,365	$1,654,348	$198,945
	75.1%	20.8%	3.6%	0.4%
Expenditure Allocations				
Total	**Residential**	**Commercial/Industrial**	**Farm/Forest**	
$43,094,583	$35,007,837	$5,719,888	$2,366,858	
	81.2%	13.3%	5.5%	

Source: Center for Economic Development Research, Georgia Institute of Technology

TABLE 2: COST OF COMMUNITY SERVICE RATIOS FOR EFFINGHAM COUNTY

		Residential	**Commercial/Industrial**	**Farm/Forest**
No School	**Exp/Rev**	1.01	0.60	1.42
	Rev/Exp	0.99	1.67	0.70
With School	**Exp/Rev**	1.19	0.31	0.66
	Rev/Exp	0.84	3.25	1.51

Source: Center for Economic Development Research, Georgia Institute of Technology

Another interesting result is that the "Farm/Forest" expenditure-to-revenue ratio (without schools) is above 1.0. This is rare and is due in large part to the level of county expenditures allocated to farm/forest. For example, the courts reported that 25 percent of all cases in both Superior and State court involve either a crime against a farm/forest operation or a civil dispute involving one or more farms. Allocating 25 percent of the cost of both Superior and State Court (including the Clerk of Superior Court) plus the relative share of the District Attorney and Solicitor to this land use resulted in more than $500K of county expenses allocated to farm/forest. Again, we have no reason to question the expert allocation of county staff, and we present this simply as an explanation of why the farm/forest ratio is as high as it is.