The Local Government Fiscal Impacts of Land Uses in Colquitt County:
Revenue and Expenditure Streams by Land Use Category

Jeffrey H. Dorfman, Ph.D.
Dorfman Consulting

March 2004

The funding for this study was provided by The Georgia Conservancy. Data were collected with the cooperation of Colquitt County officials and staff.
About Dorfman Consulting

Jeffrey H. Dorfman earned a Ph.D. in agricultural economics from the University of California, Davis in 1989. Since then he has been a professor in the Department of Agricultural & Applied Economics at The University of Georgia. From 1998-2000 he was the founding director of the Center for Agribusiness and Economic Development at The University of Georgia. He has written one book, co-authored another, authored or co-authored over 50 academic articles, and published a number of pieces for popular press outlets. He is a recognized expert in the economics of growth, sprawl, green space, and farmland preservation. On these topics he has been invited to present talks around the Southeast, appeared on television, radio, and been quoted in numerous newspaper articles. He has also worked for American Farmland Trust, the Turner Foundation, The Georgia Conservancy, and 1000 Friends of Florida on growth related issues. Dr. Dorfman also does research in the areas of Bayesian econometrics, productivity measurement, and e-commerce’s effect on agribusiness. He also consults on economic and statistical issues for a variety of companies, government agencies, and non-profit organizations.

Melody F. Dorfman has a B.Sc. degree in Environmental Policy Analysis and Planning from the University of California, Davis and an MPA (Masters in Public Administration) from the University of Georgia. She has worked as a noise analyst and transportation modeler for Jones & Stokes Associates, an environmental consulting firm, as a researcher for the U.S. Forest Service, and as a policy analyst for the Carl Vinson Institute of Government at The University of Georgia. She is the co-author of a book on Georgia’s environmental policies. She works on consulting projects dealing with public policy and environmental issues.

To contact Dorfman Consulting:

77 Lenox Road
Athens, GA 30606
Ph: 706.369.9472
Fax: 413.669.8883
Email: dorfmanconsulting@charter.net
The Local Government Fiscal Impacts of Land Uses in Colquitt County

Colquitt County is located in Southwest Georgia. It is a fairly rural county centered around the city of Moultrie, which is an important city regionally for commercial, agricultural, and industrial reasons. Colquitt County has a total population of 42,053 according to the 2000 Census, and is surrounded by other small to medium size cities. Thomasville lies to the south, Albany to the northwest, Tifton to the northeast, and Valdosta to the southeast. Growth in these cities, and in Moultrie, could create demand for residential development in Colquitt County. So far, such pressure has been manageable; population growth averaged almost 1.4% per year from 1990 to 2000 (for total population growth of 14.8%). However, this is an acceleration from the previous decade when population growth was 3.6% over the entire decade of the 1980s. Future improvements in the road network could increase residential development pressure related to jobs in surrounding cities. About 17,000 people live in one of the seven cities with over 14,000 in Moultrie, leaving the remaining 25,000 residents in the unincorporated areas of Colquitt County. The median household income was $26,039 in 1999. Colquitt County has a large base of productive farmland, and is a state leader in the production of a number of agricultural commodities. Generally, citizens feel that growth is good and more business is beneficial. At the same time, they want to weigh these benefits against the cost of growth.

Around the country, about one million acres of farmland per year are being developed for other uses. Local governments, especially in rural areas, often have difficulty financing the services that come with this development and are constantly looking for ways to improve their financial health. Local government officials often believe that one solution to their government’s financial difficulties lies through development, by increasing the property tax base; however, a growing body of empirical evidence shows that while commercial and industrial development can indeed improve the financial well being of a local government, residential development worsens it. While residential development brings with it new tax (and fee) revenue, it also brings demand for local government services. The cost of providing these services exceeds the revenue generated by the new houses in every case studied (American Farmland Trust).

Georgia is in the national spotlight for growth and development policies. The state government in Georgia has launched a major initiative (One Georgia) to boost economic development in rural communities and bring new development projects to these locations. While the main goal of this initiative is commercial and industrial growth, residential development will obviously follow if the initiative is successful. That residential development; however, will not necessarily occur in the same county as the commercial/industrial development, so caution is in order. This report provides a snapshot of Colquitt County in which an allocation of the county’s budget numbers reveals the economic service costs and revenue streams of three major land uses and provides a snapshot of the county’s overall financial health. After describing the method of analysis, the results will be presented.

Cost of Community Service Studies
Cost of Community Service (COCS) studies involve a reorganization of a local government’s (usually a county’s) records in order to assign the government revenues and costs of public services to different classes of land use or development such as residential, commercial, industrial, farm, forest and open lands. For example, a county’s expenditures on the Department
of Family and Children Services program would be classified as all benefiting residential development; the costs of roads would be allocated across all types of development; and expenditures on the Forestry Commission would likely be allocated to farm and forestland. The resulting totals for revenues generated and expenditures incurred can be presented as a ratio of expenditures-to-revenues for different land use types. This report generally follows the methods outlined by the American Farmland and Trust in their report entitled, *Is Farmland Protection A Community Investment? How to Do a Cost of Community Service Study* to complete this study.

COCS studies look at average revenues and expenditures, not changes at the margin, and are thus not capable of precisely predicting the impact of future decisions. Still, they provide the benefit of hindsight, a budgetary baseline from which to make decisions about the future. They can also allow for informed decision-making on such policy topics as tax abatements for farm or forestland (or even for commercial/industrial development). Further, educated guesses can often be made from these averages as to the likely marginal cost of development and the impact on a local government’s financial situation as a result of land use transition.

**Review of COCS Studies from Around the Nation and In Georgia**

About 90 COCS studies have been completed by a variety of researchers around the country for cities and rural communities. The maximum, median, and minimum ratios of local government revenues-to-expenditures collected from these studies are shown in Table 1. The minimum row states that for every dollar the county generates from the residential category, it spends $2.11 in services. The commercial/industrial and farm/forestland categories show that, on average, the government receives more than it spends and therefore, these land uses create a surplus. The numbers show the fallacy of depending on residential development as the road to a sound growth policy. In not a single instance did residential development generate sufficient revenue to cover its associated expenditures. For results of other studies completed in Georgia, refer to the appendix.

**Table 1. A National Summary of COCS Study Results**

<table>
<thead>
<tr>
<th>County</th>
<th>Residential</th>
<th>Comm./Ind.</th>
<th>Farm/Forest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>1 : 2.11</td>
<td>1 : 1.04</td>
<td>1 : 0.99</td>
</tr>
<tr>
<td>Median</td>
<td>1 : 1.15</td>
<td>1 : 0.27</td>
<td>1 : 0.36</td>
</tr>
<tr>
<td>Maximum</td>
<td>1 : 1.02</td>
<td>1 : 0.05</td>
<td>1 : 0.02</td>
</tr>
</tbody>
</table>

Footnote: these figures are for 83 COCS studies compiled by the American Farmland Trust (http://www.farmlandinfo.org/fic/tas/COCS_9-01.pdf).

Bedroom communities are not economically sustainable at tax rates that are likely to be levied. In fact, when a rural community with a large base of farm and forestland begins to convert that land into residential development, either as a planned growth strategy or due to market forces and a lack of growth control measures, the local government is virtually guaranteed to head down a path of deteriorating financial stability and increasing local property tax rates.
Colquitt County
Three land use categories were defined for this study: residential, commercial/industrial, and farm/forest/open space. The residential category was also subdivided to allow a separate depiction of the fiscal impacts of manufactured housing. Financial information was obtained from Colquitt County and the Colquitt County School System. For Colquitt County, the data are for the year ended June 30, 2003; for the schools, the data are for the 2001-2002 school year. The revenues and expenditures in the budgets were allocated to the land use categories based on the review of available records and interviews with local officials and service providers (farmhouses were included in the residential category). The revenues and expenditures were totaled for each land use category and revenues-to-expenditures ratios were calculated. The final results are displayed and tabulated in Figures 1 and 2 below. Figure 1 represents the county government only with schools excluded. Figure 2 shows how the results change when schools are included. The figures are presented as dollars of revenue per dollar of expenditure; numbers greater than one signify land uses generating more in revenue than they are receiving in service expenditures.

Analysis of the revenue-to-expenditure ratio for the farm and forestland category in Colquitt County reveals a common result: residential development provides less in revenue than it requires in service expenditures (with or without schools included). Within the residential category, separate results have been included for manufactured housing. (Note that manufactured housing also is included in the general residential housing category.) As shown in Figures 1 and 2, manufactured housing creates an even larger fiscal deficit for local governments and schools than residential development in general. This is due to the lower appraised values, leading to lower property tax payments. A surprising result is that farm and forest land in Colquitt County appears to also be a fiscal drain on the county government; however, once schools are included these lands provide a fiscal surplus. This unusual result is due to a high percentage of service expenditures on road and bridge maintenance and operations being allocated to farm and forest lands because such a large percentage of the acreage in Colquitt County is in this land use category (90%).

Break-even Home Values
The cost of service and revenue generation numbers that lie behind the ratios reported above can also be used to calculate the home value necessary for a county or school board to break-even. If one assumes that service cost is fairly constant across houses relative to the home value, such computations are straightforward. Further, this is not an unreasonable assumption as local government service costs will vary with house location, lot size, and (for schools) with number of kids, but are not particularly correlated with home value. Given this assumption, the county government’s average service cost per house is easily calculated, as is the revenue from all residential sources other than property tax from houses. Then, one can use the county millage rate and homestead exemption to find the home value where revenue will exactly equal service cost; we call this the break-even home value. For schools, the average per pupil cost from local tax money is computed (state and federal money is excluded) and then the school millage rate and exemptions allow the computation of a break-even home value needed to generate sufficient local revenue to cover the locally-generated expenditures for whatever number of children per household is expected or is being modeled. Figure 3 shows the breakeven home value for Colquitt County to be $56,760 (the average appraised home value in 2003 appears to be about $51,000).
Figure 1. Revenues per $1 of Expenditures by Land Use (County Government Only)

Figure 2. Revenues per $1 of Expenditures by Land Use (County Government Plus Schools)
While the county government breaks-even on a $56,760 house, they are just one government entity in the county. From the county school system perspective, the results are quite different. If a home contains just one child attending the public county schools, the break-even home value is $358,370 from the point of view of the schools’ budget. Thus, the county government will be earning a fiscal surplus off a house with a single child long before the schools. With two kids in school, the break-even home price increases to $711,740. Using census data, a home in Colquitt County is likely to have about one half a child of public school age. The break-even value for homes from the school system point of view using this average of one half pupil per household is $181,685. This is well above the average value of new houses being constructed in Colquitt County. Thus, in most cases public education of children must be subsidized by taxes paid from other land use classes along with school taxes paid by homeowners without children in the public school system.

The main insight from these numbers is that school expenses are the main service burden from residential development. Yet, with no direct control over growth and land use policies, schools are required by law to accept all children who move into their jurisdictions.

**Figure 3.** Colquitt County Breakeven Home Values

*All values to the nearest $1000. Values do not account for dedicated capital fund revenues and expenditures.*
How Much Does Farm Preservation Cost?
There has been an ongoing debate over the equity of state and local government programs that provide tax relief for farm and forestland. These programs provide tax relief by assessing the land at its “current use” in place of its “highest and best use.” In return, landowners must agree to keep the land in its current use for 10 years or be subject to financial penalties. These programs help to slow development and preserve farm/forestland and green space. In Georgia, agricultural lands are eligible for enrollment in the Conservation Use Valuation Assessment (CUVA) or the Agricultural Preferential (AG PREF) program to receive these tax incentives.

A major underlying question, however, is: How much of a tax burden is shifted to homeowners to make up for this loss in revenue? This question can be answered in Colquitt County by empirical investigation of the tax digest and the results of the COCS. Table 2 below was compiled from the Colquitt County Tax Digest Consolidated Summaries and shows the loss in revenue for Colquitt County as a result of the two programs.

Table 2. Lost Revenue in Colquitt County from Preferential Assessment Programs

<table>
<thead>
<tr>
<th>Government Program</th>
<th>Parcel Count</th>
<th>Parcel Value</th>
<th>State Tax Loss</th>
<th>County Tax Loss</th>
<th>School Tax Loss</th>
<th>Total Tax Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUVA</td>
<td>1343</td>
<td>$12,384,587</td>
<td>$3,096</td>
<td>$141,405</td>
<td>$110,223</td>
<td>$254,724</td>
</tr>
<tr>
<td>AG PREF</td>
<td>63</td>
<td>$455,280</td>
<td>$114</td>
<td>$5,186</td>
<td>$4,052</td>
<td>$9,352</td>
</tr>
</tbody>
</table>

To compute the impact of these tax incentive programs, the reduction in the tax digest (the sum total of property value in the county) due to these programs is added back into the tax digest. This yields a hypothetical tax digest as if these programs did not exist. Then a millage rate is computed to produce the same revenue as collected currently by the local government. This produces a slightly lower millage rate that property owners would pay if these tax incentive programs did not exist. The difference between this lower, hypothetical rate and the actual millage rate (0.44 mills for Colquitt County) allows computation of the fiscal impact of these tax programs for any specified property value. Table 3 shows the amount of additional property tax (both county and school) a homeowner pays because of the existence on these programs that benefit agricultural landowners. The numbers are computed for various home prices and a standard homestead exemption. For example, the owner of a $100,000 house pays an additional $16.72 a year, a slightly over 2% increase. These tax increases seem to be reasonably small. It seems likely that a majority of local homeowners are willing to pay these additional taxes in exchange for preserving farm and forestland in their county.

Table 3. Homeowner Tax Increases as a Result of Farm Programs

<table>
<thead>
<tr>
<th>House Value</th>
<th>$50,000</th>
<th>$75,000</th>
<th>$100,000</th>
<th>$150,000</th>
<th>$200,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Tax</td>
<td>$7.92</td>
<td>$12.32</td>
<td>$16.72</td>
<td>$25.52</td>
<td>$34.32</td>
</tr>
</tbody>
</table>
Implications for Governments and Farm/Forest Land Preservation Efforts

The main implication of COCS studies is that a local government that approves the conversion of farm or forestland to residential development is likely to face a worsening in its financial condition. While the lure of an increased property tax base is often attractive to a local government when it is considering a request to approve a new subdivision, local government officials must realize that their expenditures will likely rise more than their revenues, resulting in a budget shortfall unless millage rates are increased. In Colquitt County, the conversion of farmland to houses will worsen the financial condition of the county government somewhat, but will have an especially large and negative impact on the school system’s finances. Schools are very expensive and only very high-priced homes can come close to generating enough school-collected revenue to support even one child per household. Further, COCS studies confirm that programs which reduce property tax burdens on farm and forestland as a mechanism to encourage farm and forestland preservation are equitable and serve only to bring the tax burden more in line with the cost of servicing that property. Farm and forestland may not generate an impressive looking tax base, but neither do they create a large demand for government services.

The findings of COCS studies should be carefully evaluated in light of the changing character of these rural counties. COCS studies should not be used to promote one land use type over another without a careful and full understanding of their limitations. They use average revenues and expenditures and may not reflect the costs and revenue of a particular development project. They do, however, make clear that residential development alone is not a rational economic development strategy. Rural communities must ensure that their development is balanced with enough commercial and industrial development to “support” residential development that does not generate enough local government revenues to cover the expenditures it requires.

References


Appendix - Results From Other Studies in Georgia

Figure 4. Revenues per $1 in Expenditures by Land Use (County Government Only)

<table>
<thead>
<tr>
<th></th>
<th>Appling</th>
<th>Thomas</th>
<th>Dooly</th>
<th>Jones</th>
<th>Grady</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>0.57</td>
<td>0.65</td>
<td>0.57</td>
<td>0.87</td>
<td>0.71</td>
</tr>
<tr>
<td>Comm/Ind</td>
<td>2.98</td>
<td>1.71</td>
<td>1.42</td>
<td>1.17</td>
<td>5.19</td>
</tr>
<tr>
<td>Farm/Forest</td>
<td>1.42</td>
<td>1.02</td>
<td>2.66</td>
<td>2.15</td>
<td>1.07</td>
</tr>
</tbody>
</table>

Figure 5. Revenues per $1 in Expenditures by Land Use (County Government Plus Schools)

<table>
<thead>
<tr>
<th></th>
<th>Appling</th>
<th>Thomas</th>
<th>Dooly</th>
<th>Jones</th>
<th>Grady</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>0.44</td>
<td>0.61</td>
<td>0.48</td>
<td>0.81</td>
<td>0.58</td>
</tr>
<tr>
<td>Comm/Ind</td>
<td>5.95</td>
<td>2.6</td>
<td>2.02</td>
<td>1.54</td>
<td>9.77</td>
</tr>
<tr>
<td>Farm/Forest</td>
<td>2.82</td>
<td>1.5</td>
<td>3.76</td>
<td>2.82</td>
<td>2.61</td>
</tr>
</tbody>
</table>
Appendix - Results From Around Colquitt County

Figure 6. Revenues per $1 in Expenditures by Land Use (County Government Only)

Figure 7. Revenues per $1 in Expenditures by Land Use (County Government Plus Schools)