

**THE COST OF COMMUNITY SERVICES
IN CATAWBA COUNTY**

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Introduction

In counties located in and around near rapidly-growing urban areas, there is considerable debate over the desirable mix of land uses and the role that local government can and should play in affecting the rate at which new land uses supplant traditional ones. Catawba County is typical of such counties. The county's economic growth, as well as that of the adjoining counties of the "Unifour" region, have created unprecedented demands for residential and commercial development, particularly in the county's rural areas.

On the one hand, this situation has been welcomed by many because it has created significant economic development opportunities for the county's citizens and a significant increase in the county's revenue base. On the other hand, there is concern that the increased local government expenditures on community services needed to accommodate accelerated residential and commercial development may exceed the contribution of that development to the county's revenue base.

One important element of public debate over appropriate land use policies is whether or not the increased county government expenditures on community services needed to accommodate residential and commercial development exceed the contribution of that development to the county's revenue stream. This report presents the findings of a research project aimed at addressing this specific issue. The research quantifies the contribution to local government revenues of various types of land uses (residential, commercial/industrial,¹ and agricultural), and the demands on local government financial resources of those same land uses. This "snapshot" of current revenues and expenditures allows an assessment of the costs and benefits of different land uses from the perspective of local government finances.

The analysis presented here employs a methodology established by the American Farmland Trust, one that has been used in numerous Cost of Community Services (COCS) studies throughout the U.S. Like those studies, the current research was motivated by two questions: (1) Do the property taxes and other revenues generated by residential land uses exceed the amount of publicly-provided services supplied to them? (2) Does the fact that farm and forest

¹ For simplicity, the term "commercial" will denote both commercial and industrial land uses for the remainder of this report. Likewise, "agricultural" will refer to farm and forest land uses.

lands are taxed on the basis of their Present Use Value – instead of their potential value in residential or commercial uses – mean that they are contributing less in tax revenues than the value of publicly provided services they receive?

As has been found in other COCS studies, the answer to each of these questions is “no” for Catawba County. The residential sector contributes only 81¢ to the county’s coffers for each dollar’s worth of services that it receives. Commercial and industrial land uses are the largest net contributors to the public purse, contributing \$1.87 in revenues for each dollar of publicly provided services that they receive. Despite being taxed on the basis of current land uses, property in agricultural land uses is found to be a net contributor to the local budget, generating \$1.34 in revenues for every dollar of public services that it receives.

At the outset, it is important to recognize two important limitations of analyses such as the one presented here. First, COCS studies highlight the relative demands of various land uses on local fiscal resources *given the current pattern of development*. One should be cautious in extrapolating from the results of studies such as this in order to gauge the impact of future patterns of development on local public finance. Nonetheless, the results of studies such as this are useful in informing debates over such issues as whether or not alternative types of land uses are likely to contribute more in tax dollars than they demand in the way of services.

Second, the current study in no way deals with the *social* value of each of these forms of development – i.e., their contribution (positive or negative) to the well-being of the county’s citizens. Rather it focuses on the more narrow issue of whether or not these land uses “pay their own way” with regard to county revenues and expenditures. It is important to bear in mind that there is nothing sacred about an exact balance between revenues and expenditures associated with a particular land use, even when balancing the local budget is an overriding priority. Indeed, one of the primary functions of a local government is to redistribute local financial resources such that services desired by citizens are supplied, even when those services cannot pay for themselves. Determining the optimal distribution of those resources is a public policy issue to be resolved in the political arena. A study such as this fits into the process wherein such issues are resolved by shedding light on the relative costs and benefits of the specific distribution of financial resources given the existing pattern of development.

Methodology

The basic approach used in this research was quite simple. Working from the most recent available county financial data, revenues and expenditures were allocated among three specific land use categories: (a) residential; (b) commercial; and (c) agricultural. This process was carried out in conjunction with a series of telephone interviews and email exchanges with a variety of local officials knowledgeable about the workings of specific departments.

Once revenues and expenditures were allocated to specific land use categories, the ratio of revenues to expenditures was computed for each. A revenue-expenditure ratio greater than 1.00 indicates that that sector's contribution to the public purse exceeds its use of public funds. Conversely, a revenue-expenditure ratio less than 1.00 indicates that the sector's use of publicly financed services exceeds its contribution to the local budget.

The basis for the current analysis is the actual expenditures recorded for the 2011-2012 fiscal year reported in the audited *Catawba County North Carolina Comprehensive Annual Financial Report for the Fiscal Year Ending June 30, 2012*. As noted above, the allocation of these data to specific sectors was done in consultation with a variety of local officials (listed in the Acknowledgements). These individuals were best equipped to assess the extent to which the various land uses partake of the services provided by their departments. Where feasible, expenditures were allocated to land use categories using available data on staff salaries or activity records.

Often, existing records were not amenable to being broken out into various land use categories. In many of these cases, we relied on a local official's best guess of how their department's efforts were allocated. Where the relevant officials were unable to make such a guess, one of two allocation schemes was used. For services that exclusively benefit households (as opposed to commercial establishments)² – for example, public schools and library services – 100% of expenditures were allocated to the residential sector.³ For departments whose activities

² Note that the quality of “residential” services such as public schools may well have a positive influence on business formation, particularly the attractiveness of the county to firms considering relocation. These spillover effects are ignored here, however, because the information needs for quantifying them lie well beyond the scope of this research.

³ Catawba County separates the farm business from the farm residence, assessing the property value of farm residences in the same manner as any other residences. For this reason, farm residences were included in the residential land use category throughout the analysis.

benefited both residences and businesses (including agricultural businesses), expenditures were allocated based on the proportion of total property value accounted for by each land use category. This “default” breakdown of assessed property valuation for 2011-2012 was 63.0% residential, 34.6% commercial, and 2.4% agricultural. The expenditures of most of the county’s general administration departments were allocated in this way.

Revenues were handled in a manner similar to expenditures. Property tax revenues were allocated to specific land use categories based on the January 2012 property assessments. Taxes and other revenue sources that are linked directly to commercial activities – for example, Article 39 sales taxes⁴ – were allocated exclusively to the commercial sector. Revenues from sources associated exclusively with households (such as recreation fees) were allocated to the residential sector. Revenues raised by specific county government departments from fees charged for services or from inter-governmental transfers were allocated in direct proportion to the allocation of expenditures by those departments, unless respondents indicated otherwise. Any remaining revenues that could not be directly allocated in these ways (e.g., interest income) were allocated according to the “default” proportions of total property value accounted for by each land use category.

Results

A detailed breakdown of revenues sources is found in Appendix Table 1. Total county general fund revenues for 2011-2012 were \$183.8 million. About 51.7% of this money came from ad valorem property taxes, while another 12.4% came from sales taxes.

Table 1 summarizes the overall breakdown of county expenditures for the 2011-2012 fiscal year. More detailed information is found in Appendix Table 2. Health and human services⁵ and education departments accounted for just under half of the total budget. All school expenditures, and nearly all of the activities of the health and human services departments are exclusive to the

⁴ The state distributes Article 39 sales tax revenues back to counties on a point-of-sale basis. Article 40 and 42 sales taxes are distributed back to counties based on county population; revenues from these sources were allocated to residential land uses. Article 44 sales taxes are distributed to counties in part on the basis of point of sale and in part on the basis of county population; accordingly, these were allocated to residential and commercial land uses on a 50-50 basis.

⁵ Health and human services include the Social Services, Public Health, Mental Health, and Human Services departments.

residential sector. Hence, the large “footprint” of these two departments in county government has a dominant impact on the results of this study.

Table 2 summarizes revenues and expenditures by land use category. Expenditures exceeded revenues for the residential land use category, while revenues exceeded expenditures for the commercial and agricultural land use categories. The computed revenue/expenditure ratios quantify the extent to which each of the three land use categories is either a net contributor or a net drain on Catawba County’s financial resources. For comparative purposes, the bottom of the table provides the results from some 103 other Cost of Community Services studies that have been conducted throughout the U.S., as well as eleven studies that were conducted in Wake, Alamance, Orange, Chatham, Gaston, Henderson, Franklin, Durham, Guilford, Yadkin, and Pitt Counties over the course of the past decade.

The revenue/expenditure ratio for the residential land use category is 0.81; this implies that for each dollar in property tax and other revenues generated by residential land uses, the county spends \$1.23 to provide services supporting those land uses. In other words, the residential sector is on balance a net user of local public finances. On the other hand, the other two land use categories are net contributors to local fiscal resources. The revenue/expenditure ratio of 1.34 for agriculture implies that revenues substantially exceed expenditures for this land use category. The commercial land use category stands out as having the highest revenue/expenditure ratio (1.87). This result indicates that the county spends only 54¢ on services benefiting commercial and industrial establishments for every public dollar generated by those establishments.

Finally, Table 3 presents an analysis which computes the residential property value needed to generate an exact balance between average revenues contributed by the 53,739 current housing units in the county and the average value of public services consumed by households. This “breakeven” house price was computed assuming that any new household would consume the average amount of services reflected in the 2011-2012 budget – i.e., that they would possess the average number of school kids, consume an average amount of public health and social services, etc. The computation further assumes that any new household would contribute the average amount of non-property tax revenues generated by existing residential properties, and takes as a benchmark the 2012 property tax rate of 53¢ per \$100. Based on these assumptions, the breakeven property value is computed to be \$262,637.

Discussion

The results presented above provide answers to the two questions posed at the beginning of this report. As regards the public services provided by Catawba County, commercial and industrial land uses emerge as being the largest net contributor to local financial resources. In contrast, the value of public services provided to residential land uses exceed the property taxes and other revenues that they contribute to the county budget. This finding contrasts with claims that are sometimes made that residential development is a boon to county finances due to its expansion of the property tax base. It would appear that the very large footprint of the education and health and human services expenditures in the overall county budget plays a dominant role in explaining this phenomenon. Finally, agricultural lands more than pay their own way. This is true despite these properties being taxed on the basis of their current use (as opposed to their potential use were they to be transformed into commercial or residential uses).

Qualitatively, these findings for Catawba County are consistent with the findings of nearly every Cost of Community Services study that has been carried out in other communities throughout the U.S. The degree of cross-subsidization of the residential sector – in particular, the extent to which the Catawba County’s commercial sector pays for services provided to its residential sector – is somewhat less than the median in other studies that have been conducted nationally. Closer to home, the relative balance of revenues and expenditures for the residential land use category is quite close to the median found in studies conducted in other rural North Carolina counties. For the commercial and agricultural land use categories, there is somewhat greater parity between revenues and expenditures for Catawba County than has been found elsewhere in North Carolina.

As was stressed at the outset, some degree of subsidization of certain land uses by other land uses is to be expected in virtually every community. The distribution of revenues and expenditures among various land uses in Catawba County that has been computed here is based on current land use patterns in the county. Determining whether or not this distribution is appropriate – either now or in the future – is an issue that can only be resolved in the political arena.

Table 1. Catawba County Expenditures for 2011-2012

Category	Expenditure	Share
Health and Human Services ^a	49,245,126	26.8%
Education	39,257,916	21.4%
Public Safety	24,311,033	13.2%
General Government	9,766,621	5.3%
Economic and Physical Development	11,009,996	6.0%
Culture and Recreation Services	2,677,465	1.5%
Environmental Protection	451,864	0.2%
Debt Service	47,077,464	25.6%

a. Health and human services include the Social Services, Public Health, Mental Health, and Human Services departments.

Source: *Catawba County North Carolina Certified Annual Financial Report for the Year Ended June 30, 2012*

Table 2. Revenues vs. Expenditures in Catawba County

	Residential	Commercial	Agricultural
Revenues	\$122,414,691 (66.6%)	\$58,403,153 (31.8%)	\$2,979,641 (1.6%)
Expenditures	\$150,282,369 (81.8%)	\$31,283,789 (17.0%)	\$2,231,327 (1.2%)
Revenues/Expenditures ratio^a	0.81	1.87	1.34
Revenue/Expenditure ratios from national studies^b			
Minimum	0.47	0.96	1.01
Median	0.87	3.57	2.78
Maximum	0.99	20.00	50.00
Revenue/Expenditure ratios from local studies			
Wake County (2001)	0.65	5.63	2.12
Alamance County (2006)	0.68	4.29	1.69
Orange County (2006)	0.76	4.21	1.38
Chatham County (2007)	0.87	3.01	1.72
Gaston County (2008)	0.81	2.41	1.13
Henderson County (2008)	0.86	2.52	1.03
Franklin County (2009)	0.89	1.90	1.32
Durham County (2010)	0.87	3.03	1.70
Guilford County (2010)	0.74	3.44	1.62
Yadkin County (2011)	0.89	2.63	1.63
Pitt County (2012)	0.77	2.76	1.62
Median	0.81	3.03	1.62

a. This ratio measures the amount of county revenue contributed by a given land use sector for each dollar in public services used by that sector.

b. These figures are derived from 103 Cost of Community Services summarized on the American Farmland Trust website (http://farmlandinfo.org/documents/27757/FS_COCS_8-04.pdf).

Table 3. Breakeven Analysis for Residential Property Value in Catawba County

(1) Property tax rate (\$ per \$100)	0.53
(2) Residential Non-Property Tax Revenue Contribution in 2011-2012	\$ 75,479,009
(3) Total residential expenditures in 2011-2012	\$ 150,282,369
(4) Total Expenditures needing to be paid for by property taxes [(3) - (2)]	\$ 74,803,360
(5) Number of residential properties in the county	53,739
(6) Per household expenditures needing to be paid for by property taxes [(4) ÷ (5)]	\$ 1,392
Breakeven property value [100 × (6) ÷ (1)]	\$ 262,637

Appendix Table 1. Catawba County Revenues by Land Use Category for 2011-2012

	Total	Residential	Commercial	Agricultural	Breakdown^a
Ad Valorem Taxes	80,809,063	50,847,800	28,024,204	1,937,059	
Current year	78,892,887	49,702,519	27,296,939	1,893,429	default
Prior year	1,326,882	835,936	459,101	31,845	default
Penalties and interest	491,025	309,346	169,895	11,785	default
Tax leased vehicles	98,269	0	98,269	0	0-100-0
Local Option Sales	19,394,643	8,200,576	11,194,068	0	
Article 39	11,016,057	0	11,016,057	0	0-100-0
Article 40	5,459,189	5,459,189	0	0	100-0-0
Article 42	2,563,376	2,563,376	0	0	100-0-0
Article 44	20,880	10,440	10,440	0	50-50-0
Article 46					
Other Taxes and Licenses	473,209	253,322	210,236	9,650	
Real estate excise	402,099	253,322	139,126	9,650	default
ABC 5 cents per	48,170	0	48,170	0	0-100-0
Privilege licenses	22,940	0	22,940	0	0-100-0
Unrestricted Intergovernmental Revenues	1,839,255	0	1,839,255	0	
Beer & Wine Tax	362,584	0	362,584	0	0-100-0
Video Programming fees	681,671	0	681,671	0	0-100-0
Catawba County ABC profit distribution	795,000	0	795,000	0	0-100-0
Licenses, Permits and Fees:	1,994,746	1,315,877	677,535	1,335	66-33.9-0.1

Appendix Table 1. Catawba County Revenues by Land Use Category for 2011-2012 (continued)

	Total	Residential	Commercial	Agricultural	Breakdown^a
Restricted Intergovernmental Revenues	36,129,385	34,189,919	1,791,175	148,291	
Mental Health Services	123,388	123,388	0	0	100-0-0
Social Services	23,423,170	23,423,170	0	0	100-0-0
Public Health	2,393,027	2,375,756	16,151	1,120	99.3-0.6-0.1
Other State and Federal Grants	3,149,713	2,307,894	758,731	83,088	73.3-24.1-2.6
Fines and Forfeitures	509,420	320,935	176,259	12,226	default
Other Grants	6,530,667	5,638,775	840,035	51,857	86.3-12.9-0.8
Sales and Services:	12,117,015	7,940,916	4,030,560	145,540	
Social Services	249,971	249,971	0	0	100-0-0
Public Health	5,802,888	3,870,526	1,932,362	0	100-0-0
Municipalities	451,440	284,407	156,198	10,835	default
Other	5,612,716	3,536,011	1,942,000	134,705	default
Investment Earnings	512,656	322,973	177,379	12,304	default
Miscellaneous	2,919,831	1,950,469	906,484	62,878	
Social Services	118,996	118,996	0	0	100-0-0
Public Health	180,938	180,938	0	0	100-0-0
Other	2,619,897	1,650,535	906,484	62,878	default
Total Current Revenues	156,189,803	105,021,851	48,850,895	2,317,056	
Fund Transfer	27,607,682	17,392,840	9,552,258	662,584	default
TOTAL REVENUES	183,797,485	122,414,691 (66.6%)	58,403,153 (31.8%)	2,979,641 (1.6%)	

a. Percentage breakdown by land use category (residential-commercial-agricultural). Default percentages were based on 2012 assessed property valuation (residential – 63.0%; commercial – 34.6%; agricultural - 2.4%).

Appendix Table 2. Catawba County Expenditures by Land Use Category for 2011-2012

	Total	Residential	Commercial	Agricultural	Breakdown^a
General Government	9,766,621	6,152,971	3,379,251	234,399	
Board of Commissioners	135,405	85,305	46,850	3,250	default
Administration	1,399,371	881,604	484,182	33,585	default
Tax Administration	1,517,961	956,315	525,215	36,431	default
Board of Elections	411,798	259,433	142,482	9,883	default
Human Resources	987,154	621,907	341,555	23,692	default
Register of Deeds	778,673	490,564	269,421	18,688	default
Finance	1,437,519	905,637	497,382	34,500	default
Other Govt Programs	3,098,740	1,952,206	1,072,164	74,370	default
Public Safety	24,311,033	18,491,541	5,459,689	359,803	
Sheriff	13,697,527	9,081,460	4,314,721	301,346	66.3-31.5-2.2
Emergency Services	8,873,024	8,313,577	542,761	16,686	93.7-6.1-0.2
Communication Center	1,578,069	994,183	546,012	37,874	default
Other Public Safety	162,413	102,320	56,195	3,898	default
Environmental Protection	451,864	117,775	19,882	314,207	
Cooperative Extension	244,734	110,130	12,237	122,367	45-5-50
Soil and Water Conservation	152,900	7,645	7,645	137,610	5-5-90
Forest Ranger	54,230	0	0	54,230	0-0-100
Human Services	49,245,126	48,975,857	269,269	0	
Medical Examiner	85,100	85,100	0	0	100-0-0
Mental Health Services	1,006,556	1,006,556	0	0	100-0-0
Social Services	36,496,820	36,496,820	0	0	100-0-0
Public Health	11,656,650	11,387,381	269,269	0	97.7-2.3-0
Culture and Recreation	2,677,465	2,677,465	0	0	
Libraries	2,180,015	2,180,015	0	0	100-0-0
Arts Administration	497,450	497,450	0	0	100-0-0

Appendix Table 2. Catawba County Expenditures by Land Use Category for 2011-2012 (continued)

	Total	Residential	Commercial	Agricultural	Breakdown^a
Economic and Physical Development	11,009,996	4,950,041	5,866,896	193,059	
<i>Technology</i>					
Information Technology Center	2,888,351	1,819,661	999,369	69,320	default
GIS	329,365	207,500	113,960	7,905	default
<i>Economic Development and Planning</i>					
Planning and Zoning	542,254	298,240	189,789	54,225	55-35-10
County Parks	290,452	290,452	0	0	100-0-0
Other Economic and Physical Dev't	2,588,822	0	2,582,572	6,250	0-100-0
<i>Utilities and Engineering</i>					
Utilities & Engineering Administration	180,882	69,097	111,785	0	38.2-61.8-0
Building Inspections	988,716	494,358	494,358	0	50-50-0
Permit Center	330,855	165,428	165,428	0	50-50-0
Plan Review	276,490	0	276,490	0	0-100-0
Stormwater and Erosion Control	137,208	2,744	134,464	0	2-98-0
<i>Finance/Facilities</i>					
Garage	525,694	331,187	181,890	12,617	default
General Maintenance	659,401	415,423	228,153	15,826	default
General Buildings	450,998	284,129	156,045	10,824	default
Justice Buildings	634,029	399,438	219,374	15,217	default
Library Buildings	61,963	61,963	0	0	100-0-0
Leased Buildings	32,681	20,589	11,308	784	default
Social Services Buildings	53,215	53,215	0	0	100-0-0
Public Health Buildings	25,653	25,060	593	0	97.7-2.3-0
Family Services Center	9,157	9,157	0	0	100-0-0
Street Signs	3,810	2,400	1,318	91	default

Appendix Table 2. Catawba County Expenditures by Land Use Category for 2011-2012 (continued)

	Total	Residential	Commercial	Agricultural	Breakdown^a
Education	39,257,916	39,257,916	0	0	
Catawba County schools	25,118,363	25,118,363	0	0	100-0-0
Newton-Conover City Schools	4,275,583	4,275,583	0	0	100-0-0
Hickory City Schools	6,246,902	6,246,902	0	0	100-0-0
Catawba Valley Community College	3,617,068	3,617,068	0	0	100-0-0
Debt Service	47,077,464	29,658,802	16,288,803	1,129,859	default
Total Expenditures	183,797,485	150,282,369	31,283,789	2,231,327	
		(81.8%)	(17.0%)	(1.2%)	

a. Percentage breakdown by land use category (residential-commercial-agricultural). Default percentages were based on 2012 assessed property valuation (residential – 63.0%; commercial – 34.6%; agricultural - 2.4%).