

THE COST OF COMMUNITY SERVICES IN WAKE COUNTY

A Report to Wake County and the Triangle J Council of Governments

Prepared by:

Mitch Renkow
Department of Agricultural and Resource Economics
North Carolina State University

June 2001

Acknowledgements

I would like to thank the many Wake County officials who kindly contributed information and assistance in course of conducting this research:

Rick Bailey, Wake Soil and Water Conservation District
Captain Phillip Bissette, Sheriff's Department
Glenn Blackley, Department of General Services
Raymond Boutwell, County Budget Director
Melinda Clark, Planning Department
Emmett Curl, County Tax Assessor
Ray Echevarria, Department of Public Safety
Charles Friddle, Department of Community Services
Brent Henry, Cooperative Extension Service
Doug Longhini, Department of Community Services
Kent Penny, Department of Environmental Services
Ward Preston, Wake Technical Community College
Rick Rowe, Department of Environmental Services
John Rukavina, Department of Public Safety
Dickie Sloop, Animal Control Officer
Bob Sorrels, Department of Human Service
Major Ralph Stephenson, Sheriff's Department

I also gratefully acknowledge the members of the Technical Advisory Committee that oversaw the research:

Rick Bailey, Conservation District Administrator, Wake Soil and Water Conservation District
Don Belk, Senior Planner, Town of Cary Planning Department
Wayne Cash, Chair, Durham County Farmland Protection Board
Ben Hitchings, Senior Planner, Triangle J Council of Governments
Keith Luck, Planning Supervisor, Durham City/County Planning Department
Dave Stancil, Director, Orange County Environment and Resource Conservation Department

Funding for this project came from Wake County. Project management and technical assistance were provided by the Triangle J Council of Governments. Ben Hitchings was the Project Manager, and Rick Bailey was the Project Sponsor. Special thanks to both of these gentlemen for facilitating many aspects of this research.

Finally, able research assistance was provided by Bonu Sengupta.

THE COST OF COMMUNITY SERVICES IN WAKE COUNTY

Introduction

When a fast-growing metropolitan county contains significant amounts of open space and other undeveloped land, there is usually considerable debate over both 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. Such is the case in Wake County, where roughly less than half of the total land area is developed.¹ Continuing strong economic growth has created significant pressures to convert open spaces, forests, and agricultural lands to residential or commercial uses. On the one hand, this situation has been welcomed by many because it has created significant economic opportunities in locations that were previously relatively underdeveloped, and because such development increases the local revenue base. On the other hand, many citizens worry that the rapid pace of these changes will transform the nature of these rural places in ways that are undesirable.

One important element of public debate over appropriate land use policies is whether or not increased local government expenditures on community services needed to accommodate residential and commercial development exceed the contribution of that development to the local revenue base. This report presents the findings of a research project aimed at addressing this specific issue. The research quantified the contribution to local government revenues of various land use sectors (residential, commercial/industrial,² and farm/forest land), and the demands on local government financial resources of those same land use sectors. 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 finance.

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

¹ According to the 1997 National Resources Inventory, 42% of Wake County’s total land area is developed, 8% is in cultivated farmland, 2% is in pasture, 44% is in forest land, and 4% is other undeveloped land.

² For simplicity, the term “commercial” will denote both commercial and industrial land uses for the remainder of this report.

questions: (1) Do farm and forest lands receive an unfair tax advantage when they are assessed at their actual use – as in North Carolina – instead of their potential use in residential or commercial development? (2) Do the property taxes and other revenues generated by residential land uses exceed the amount of publicly-provided services required to them?

As has been found in other COCS studies, the answers to these questions are “no” for Wake County. Despite being taxed on the basis of current land uses, property in farms or forests is found to be a net contributor to the local budget, generating \$2.12 in revenues for every dollar of public services that it receives. Conversely, the residential sector contributes only 65¢ 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, receiving only about 18¢ worth of publicly provided services for each dollar in revenues that they generate.

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*. As such, 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.” 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 specific distribution of financial resources implicit in 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) farm/forest. This allocation process was carried out in conjunction with a series of telephone interviews conducted with a variety of local officials knowledgeable about the workings of specific departments.

Once revenues and expenditures were allocated to specific land use sectors, the ratio of revenues to expenditures for each sector was computed. A revenue-expenditure ratio greater than one (1) indicates that that sector's contribution to the public purse exceeds its demands for public funds. Conversely, a revenue-expenditure ratio less than one indicates that the sector's demand for publicly financed services exceeds its contribution to local public finance.

The basis for the current analysis was Wake County's Annual Operating and Capital Budget for the 2000-2001 fiscal year. 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 use sectors partake of the services provided by their departments. Where feasible, expenditures were allocated to the various land use categories using available data on staff salaries and/or activities records. For example, the Fire and Rescue Services Division of the Department of Public Safety keeps records of calls originating from commercial, residential, or farm/forest properties, so we were able to compute the proportion of calls from specific land use sectors and allocate Fire and Rescue expenditures accordingly.

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 (or unwilling) to make such a guess, one of two default allocation schemes was used. For services that

exclusively benefit households (as opposed to commercial establishments) – for example, public schools and library services – we allocated 100% of expenditures to the residential sector. For departments whose activities benefited both residences and businesses (including agricultural businesses), we allocated expenditures based on the proportion of total property value accounted for by each land use category. The expenditures of most of the county’s general administration departments were allocated in this manner.

Revenues were handled in a manner similar to expenditures. Property tax revenues were allocated to specific land use sectors based on the 2000 property tax assessments. Taxes and other revenue sources that are linked directly to commercial activities – for example, sales taxes – were allocated to the commercial sector. Revenues from sources associated exclusively with households (such as marriage licenses) were allocated to the residential sector. Revenues raised by specific county government departments from non-governmental sources were allocated in direct proportion to the expenditures by those departments. For example, revenues originating in fees charged by the register of deeds were allocated to land use sectors in the same proportions as that department’s expenditures were allocated. Any remaining revenues that could not be directly allocated in these ways were allocated according to the proportion 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 revenues for 2000-2001 were \$564.4 million. Approximately 57% of this money came from property taxes. The largest other revenue sources were sales taxes (16%) and inter-governmental transfers from state and federal sources (14%).

Table 1 summarizes the overall breakdown of county expenditures for the 2000-2001 fiscal year. More detailed information is found in Appendix Table 2. Two departments – education and human services – accounted for more than three quarters of the total budget. Because all school expenditures, and nearly all of the activities of the Human Services department are exclusive to the residential sector, 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. The figures in Table 2 indicate that expenditures exceeded revenues for the residential land use category, while revenues exceeded expenditures for the commercial and farm/forest land use categories.³ 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 Wake County's financial resources. For comparative purposes, the bottom of the table provides the results from some 70 other Cost of Community Services studies that have been conducted throughout the U.S.

The ratio for the residential sector is 0.65, implying that for each dollar in property tax and other revenues generated by residential land uses, the county spends \$1.54 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 2.12 for the farm/forest sector implies that for every dollar in revenues attributable to these land uses, the county spends only \$0.47 in services benefiting them. The commercial land use category stands out as the sector having the highest revenue/expenditure ratio (5.63). These results indicate that the county spends only \$0.18 in services benefiting commercial and industrial establishments for every public dollar generated by those establishments.

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 Wake County, farms and forest 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). In contrast, the value of public services provided to residential land uses

³ The analysis included farm residences in the residential land use category because Wake county separates the farm business from the farm residence, taxing farm residences in the same manner as any other residences. However, sensitivity analysis indicated that including farm residences in the farm/forest land use category makes little qualitative difference: the revenue/expenditure ratio for the farm/forest category falls from the 2.12 to 1.81, while the other revenue/expenditure ratios remain unchanged. The basic reason for the insensitivity of the results to the treatment of farm residences is that there are relatively few farm households in Wake County (less than one quarter of one percent of all households).

exceed the property tax and other revenues that they contribute to the county budget. This contradicts claims that are sometimes made that residential development is a boon to county finances due to its expansion of the property tax base. Finally, commercial and industrial land uses emerge as being the largest net contributors to local financial resources.

The main finding of this research, then, is that farm/forest and commercial land uses subsidize residential land uses in Wake County. This is consistent with the findings of virtually 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 Wake County’s commercial sector pays for services provided to its residential sector – is somewhat higher than has been found in most other studies. It would appear that the very large footprint of the education and human services departments in the overall county budget is the source of this.

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 Wake County that has been computed here is based on current land patterns in the county. Determining whether or not this relatively balanced distribution is appropriate – either now or in the future – is an issue that can only be resolved in the local political arena.

Table 1. Wake County Expenditures for 2000-2001

Item	Expenditure	%
Education	\$289,683,097	51.3
Human Services	143,107,566	25.4
General Administration	34,681,295	6.1
Sheriff	29,230,663	5.2
Community Services	16,440,368	2.9
Public Safety	15,292,252	2.7
Environmental Services	5,792,021	1.0
Debt Service	2,907,100	0.5
Other	27,300,806	4.8
Total	\$564,435,168	100

Source: *Wake County Annual Operating and Capital Budget*

Table 2. Revenues vs. Expenditures in Wake County

	Residential	Farm/Forest	Commercial
Expenditures	\$521,309,222 (92.4%)	\$4,687,054 (0.8%)	\$38,438,893 (6.8%)
Revenues	\$338,237,211 (59.9%)	\$9,913,521 (1.8%)	\$216,297,547 (38.3%)
Revenues/Expenditures ratio^a	0.65	2.12	5.63
	----- R/E ratios from other studies^b -----		
Minimum	0.47	1.03	1.06
Median	0.87	3.45	2.70
Maximum	0.98	20.00	50.00

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 70 Cost of Community Services studies conducted nationally. They are compiled on the American Farmland Trust website (www.farmlandinfo.org/fic/tas/tafs-cocs.html).