

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

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Introduction

For counties located in and around rapidly urbanizing areas, considerable debate surrounds 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. Orange County is typical of such counties. The county's economic growth, as well as that of the other counties of the Research Triangle, have created unprecedented demands for residential and commercial development. On the one hand, this situation has been welcomed by many because it has created significant economic opportunities for the county's citizens, and a significant increase in the county's tax revenue base. On the other hand, significant numbers of county residents regularly express concern over the growing congestion and loss of green space associated with land use change, and with the increased financial demands on local government to provide the services needed to accommodate residential and commercial development.

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 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 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 questions: (1) Do the property taxes and other revenues generated by residential land uses exceed the amount of publicly-provided services required to them? (2) Do farm and forest lands

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.

receive an unfair tax advantage when they are assessed at their actual use value – as is the case in Orange County – instead of their potential use in residential or commercial development?

As has been found in other COCS studies, the answers to these questions are “no” for Orange County. The residential sector contributes only 76¢ 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 \$4.21 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 \$1.38 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*. 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) agricultural. This process was carried out in conjunction with a series of telephone and in-person interviews 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 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 Orange County's Annual Operating Budget for the 2005-2006 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 types of 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 and/or activities records. For example, the Emergency Management Service keeps records of calls originating from commercial, residential, or agricultural properties, so we were able to compute the proportion of calls from specific land use categories and allocate EMS 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 to make such a guess, one of two allocation schemes was used. For services that exclusively benefit households (as opposed to commercial establishments) – for example, public schools and library services – 100% of expenditures were allocated to the residential sector.² For departments whose activities

² Orange 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.³ 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 categories based on the 2005 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 pet license fees) were allocated to the residential sector, as were revenues from impact fees levied on new housing construction. Revenues raised by specific county government departments from fees charged for services or from non-governmental sources were allocated in direct proportion to the allocation of expenditures by those departments. For example, revenues originating in building inspection fees charged by the Planning Department were allocated to land use sectors in the same proportions as that department's building inspection 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 budgeted for 2005-2006 were just under \$150 million. Just over two-thirds of this money came from property taxes. The largest other revenue sources were sales taxes (14%) and inter-governmental transfers from state and federal sources (9.5%).

Table 1 summarizes the overall breakdown of county expenditures budgeted for the 2005-2006 fiscal year. More detailed information is found in Appendix Table 2. Two departments – education and human services – accounted for 69% of the total budget.⁴ Because

³ This “default” breakdown of assessed property valuation for 2005 was 80.8% residential, 17.4% commercial, and 1.8% agricultural.

⁴ The 69% figure includes both the direct outlay of \$84.4 million budgeted for education and human services, plus the amount of debt service (\$14.7 million) and non-departmental transfers (\$4.4 million) related to school finance.

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. Expenditures exceeded revenues for the residential land use category, while revenues exceeded expenditures for the commercial and agricultural land use categories.⁵ 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 Orange 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 two studies that were conducted in Chatham and Wake Counties in the past decade.

The revenue/expenditure ratio for the residential land use category is 0.76, implying that for each dollar in property tax and other revenues generated by residential land uses, the county spends \$1.32 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 1.38 for the agricultural category implies that for every dollar in revenues attributable to these land uses, the county spends only \$0.72 in services benefiting them. The commercial land use category stands out as having the highest revenue/expenditure ratio (4.21). This result indicates that the county spends only \$0.24 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 Orange County, commercial and industrial land uses emerge as being the largest net contributors to local financial resources. In contrast, the value of public services provided to residential land uses exceed the property taxes and other

⁵ The analysis included farm residences in the residential land use category because Orange County separates the farm business from the farm residence, taxing farm residences in the same manner as any other residences.

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 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).

These findings for Orange 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 Orange County’s commercial sector pays for services provided to its residential sector – is somewhat higher than the median in other studies that have been conducted nationally. Closer to home, the relative balance of revenues and expenditures across land use categories lies between what was found in comparable studies conducted in Chatham and Wake Counties.

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 Orange County that has been computed here is based on current land 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 local political arena.

Table 1. Orange County Expenditures for 2005-2006

Item	Expenditure	%
Education	\$52,271,554	34.9
Human Services	32,129,721	21.4
Public Safety	13,925,289	9.3
General Services	9,564,580	6.4
Governing & Management	7,788,409	5.2
Community & Environment	3,471,261	2.3
Culture & Recreation	3,089,039	2.1
Debt Service	19,711,775	13.2
Non-Departmental Transfers	7,905,246	5.3
Total	\$149,856,874	100

Source: *Orange County Annual Operating Budget 2005-2006*

Table 2. Revenues vs. Expenditures in Orange County

	Residential	Commercial	Agricultural
Expenditures	\$138,441,212 (92.4%)	\$10,063,907 (6.7%)	\$1,351,755 (0.9%)
Revenues	\$105,633,103 (70.5%)	\$42,357,171 (28.3%)	\$1,866,600 (1.2%)
Revenues/Expenditures ratio^a	0.76	4.21	1.38
	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^c		
Chatham County	0.90	2.13	1.09
Wake County	0.65	5.63	2.12

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).

c. These studies were conducted by the author in 1998 and 2001, respectively.

Appendix Table 1. Orange County Budgeted Revenues by Land Use Category for 2005-2006

Item	Total	Residential	Commercial	Agricultural	Breakdown^a
Property Taxes	\$101,484,995	\$82,939,694	\$16,851,501	\$1,693,800	
Property Taxes	\$93,099,981	\$75,224,785	\$16,199,397	\$1,675,800	default
Motor Vehicles	\$7,010,014	\$6,796,910	\$213,104	\$0	97.0-3.0-0
Gross Receipts	\$50,000	\$0	\$50,000	\$0	0-100-0
Delinquent Taxes	\$610,000	\$492,880	\$106,140	\$10,980	default
Interest On Delinquent Taxes	\$325,000	\$262,600	\$56,550	\$5,850	default
Late List Penalties	\$65,000	\$52,520	\$11,310	\$1,170	default
Animal Taxes	\$110,000	\$110,000	\$0	\$0	100-0-0
Beer and Wine	\$215,000	\$0	\$215,000	\$0	0-100-0
Sales Tax	\$20,806,210	\$0	\$20,806,210	\$0	
One Cent	\$7,430,000	\$0	\$7,430,000	\$0	0-100-0
Article 40 Half Cent	\$4,793,105	\$0	\$4,793,105	\$0	0-100-0
Article 42 Half Cent	\$4,793,105	\$0	\$4,793,105	\$0	0-100-0
Article 44 Half Cent	\$3,790,000	\$0	\$3,790,000	\$0	0-100-0
Licenses and Permits	\$286,500	\$0	\$286,500	\$0	
Privilege License	\$11,500	\$0	\$11,500	\$0	0-100-0
Franchise Fees	\$275,000	\$0	\$275,000	\$0	0-100-0
Investment Earnings	\$510,000	\$412,080	\$88,740	\$9,180	default
Miscellaneous	\$491,258	\$396,936	\$85,479	\$8,843	default
Transfers from Other Funds	\$3,199,883	\$2,969,505	\$208,780	\$21,598	92.8-6.5-0.7

Appendix Table 1. Orange County Budgeted Revenues by Land Use Category for 2005-2006 (continued)

Item	Total	Residential	Commercial	Agricultural	Breakdown^a
Charges For Service	\$8,885,675	\$5,348,988	\$3,444,803	\$91,884	
Aging and Transportation	\$215,197	\$215,197	\$0	\$0	100-0-0
Child Support Enforcement	\$2,000	\$2,000	\$0	\$0	100-0-0
Community Planning	\$895,262	\$643,693.38	\$251,568.62	\$0	71.9-28.1-0
Emergency Management	\$1,463,000	\$1,329,867	\$124,355	\$8,778	90.9-8.5-0.6
Health Permits	\$1,417,700	\$0	\$1,417,700	\$0	0-100-0
Land Records	\$13,000	\$10,504	\$2,262	\$234	default
Library Services	\$18,325	\$18,325	\$0	\$0	100-0-0
Recreation and Parks	\$130,775	\$130,775	\$0	\$0	100-0-0
Register of Deeds	\$1,941,580	\$1,568,797	\$337,835	\$34,948	default
Sheriff	\$2,275,000	\$1,014,650	\$1,221,675	\$38,675	44.6-53.7-1.7
Tax Collection	\$125,000	\$101,000	\$21,750	\$2,250	default
Other	\$388,836	\$314,179	\$67,657	\$6,999	default
Intergovernmental	\$14,192,353	\$13,565,899	\$585,158	\$41,295	
Aging and Transportation	\$687,474	\$687,474	\$0	\$0	100-0-0
Child Support Enforcement	\$754,000	\$754,000	\$0	\$0	100-0-0
Emergency Management	\$46,384	\$42,163	\$3,943	\$278	90.9-8.5-0.6
Health	\$543,338	\$543,338	\$0	\$0	100-0-0
Human Rights and Relations	\$65,500	\$65,500	\$0	\$0	100-0-0
Library	\$126,391	\$126,391	\$0	\$0	100-0-0
Recreation & Parks	\$92,158	\$92,158	\$0	\$0	100-0-0
Sheriff	\$495,669	\$221,068	\$266,174	\$8,426	44.6-53.7-1.7
Social Services	\$9,570,856	\$9,570,856	\$0	\$0	100-0-0
Local	\$1,810,583	\$1,462,951	\$315,041	\$32,590	default
TOTAL	\$149,856,874	\$105,633,103	\$42,357,171	\$1,866,600	
	(100%)	(70.5%)	(28.3%)	(1.2%)	

a. Percentage breakdown by land use category (residential-commercial-agricultural). Default percentages were computed from 2005 assessed property valuation (residential - 80.8%; commercial - 17.4%; agricultural - 1.8%).

Appendix Table 2. Orange County Budgeted Expenditures by Land Use Category for 2005-2006

Item	Total	Residential	Commercial	Agricultural	Breakdown^a
Governing & Management	\$7,788,409	\$6,597,939	\$1,078,864	\$111,607	
Board of County Commissioners	\$504,273	\$407,453	\$87,744	\$9,077	default
County Manager	\$931,235	\$752,438	\$162,035	\$16,762	default
Animal Services	\$1,588,043	\$1,588,043	\$0	\$0	100-0-0
Budget	\$262,291	\$211,931	\$45,639	\$4,721	default
Finance	\$419,783	\$339,185	\$73,042	\$7,556	default
Purchasing	\$248,309	\$200,634	\$43,206	\$4,470	default
Central Services	\$1,786,685	\$1,443,641	\$310,883	\$32,160	default
Rents and Insurance	\$105,194	\$84,997	\$18,304	\$1,893	default
Personnel	\$671,638	\$542,684	\$116,865	\$12,089	default
Non-Departmental	\$1,270,958	\$1,026,934	\$221,147	\$22,877	default
General Services	\$9,564,580	\$7,295,103	\$2,130,068	\$139,409	
Board of Elections	\$449,293	\$363,029	\$78,177	\$8,087	default
Information Technology	\$1,255,168	\$1,014,176	\$218,399	\$22,593	default
Land Records	\$470,292	\$379,996	\$81,831	\$8,465	default
Register of Deeds	\$987,764	\$798,113	\$171,871	\$17,780	default
Tax Assessor	\$816,935	\$660,083	\$142,147	\$14,705	default
Tax Collector	\$799,844	\$646,274	\$139,173	\$14,397	default
Buildings & Grounds	\$2,779,223	\$2,245,612	\$483,585	\$50,026	default
Motor Pool	\$376,407	\$304,137	\$65,495	\$6,775	default
Sanitation	\$1,819,654	\$1,037,203	\$782,451	\$0	57-43-0
Non-Departmental	(\$190,000)	(\$153,520)	(\$33,060)	(\$3,420)	default
Community & Environment	\$3,471,261	\$2,072,855	\$987,301	\$411,105	
Economic Development	\$265,811	\$0	\$226,636	\$36,175	0-86.4-13.6
Environment & Resource Cons	\$532,426	\$266,213	\$88,915	\$177,298	50-17-33
Planning	\$2,328,486	\$1,674,181	\$654,305	\$0	71.9-28.1-0
Soil & Water	\$261,517	\$65,379	\$0	\$196,138	25-0-75
Non-Departmental	\$83,021	\$67,081	\$14,446	\$1,494	default

Appendix Table 2. Orange County Budgeted Expenditures by Land Use Category for 2005-2006 (continued)

Item	Total	Residential	Commercial	Agricultural	Breakdown^a
Human Services	\$32,129,721	\$31,830,550	\$66,229	\$232,943	
<i>Social Services</i>					
Public Assistance	\$5,040,779	\$5,040,779	\$0	\$0	100-0-0
Administration	\$1,383,346	\$1,383,346	\$0	\$0	100-0-0
Children/Family Services	\$4,293,406	\$4,293,406	\$0	\$0	100-0-0
Veteran's Services	\$57,238	\$57,238	\$0	\$0	100-0-0
Economic Services	\$3,516,224	\$3,516,224	\$0	\$0	100-0-0
Skills Development Center	\$74,222	\$37,111	\$37,111	\$0	50-50-0
Subsidy	\$4,756,631	\$4,756,631	\$0	\$0	100-0-0
<i>Health</i>					
Central Admin. Services	\$859,338	\$859,338	\$0	\$0	100-0-0
Dental Health	\$710,014	\$710,014	\$0	\$0	100-0-0
Promotion and Education	\$398,032	\$398,032	\$0	\$0	100-0-0
Environmental Health	\$1,006,366	\$1,006,366	\$0	\$0	100-0-0
Personal Health	\$2,862,490	\$2,862,490	\$0	\$0	100-0-0
Risk Mgmt. & Quality Assurance	\$192,027	\$192,027	\$0	\$0	100-0-0
<i>Aging</i>					
Administration	\$190,518	\$190,518	\$0	\$0	100-0-0
Community Based Services	\$554,189	\$554,189	\$0	\$0	100-0-0
Elder Care Program	\$399,789	\$399,789	\$0	\$0	100-0-0
RSVP	\$137,255	\$137,255	\$0	\$0	100-0-0
<i>Other</i>					
Cooperative Extension	\$485,297	\$223,237	\$29,118	\$232,943	46-6-48
Orange Public Transportation	\$945,600	\$945,600	\$0	\$0	100-0-0
Human Rights and Relations	\$347,113	\$347,113	\$0	\$0	100-0-0
Child Support	\$796,433	\$796,433	\$0	\$0	100-0-0
Mental Health	\$1,294,000	\$1,294,000	\$0	\$0	100-0-0
OPC Legal Support	\$76,832	\$76,832	\$0	\$0	100-0-0
Non-Departmental	\$1,752,582	\$1,752,582	\$0	\$0	100-0-0

Appendix Table 2. Orange County Budgeted Expenditures by Land Use Category for 2005-2006 (continued)

Item	Total	Residential	Commercial	Agricultural	Breakdown^a
Public Safety	\$13,925,289	\$8,868,766	\$4,882,014	\$174,509	
Sheriff	\$8,196,206	\$3,655,508	\$4,401,363	\$139,336	44.6-53.7-1.7
EMS Administration	\$291,521	\$264,993	\$24,779	\$1,749	90.9-8.5-0.6
Fire Services	\$237,883	\$216,236	\$20,220	\$1,427	90.9-8.5-0.6
EMS Telecommunications	\$1,581,241	\$1,437,348	\$134,405	\$9,487	90.9-8.5-0.6
EMS Treatment & Transportation	\$3,098,224	\$2,816,286	\$263,349	\$18,589	90.9-8.5-0.6
Courts	\$182,000	\$147,056	\$31,668	\$3,276	default
Non-Departmental	\$338,214	\$331,340	\$6,229	\$644	98.0-1.8-0.2
Culture & Recreation	\$3,089,039	\$3,089,039	\$0	\$0	
Recreation & Parks	\$1,508,897	\$1,508,897	\$0	\$0	100-0-0
Library Services	\$1,005,887	\$1,005,887	\$0	\$0	100-0-0
Arts Commission	\$103,334	\$103,334	\$0	\$0	100-0-0
Other Municipal Support	\$375,141	\$375,141	\$0	\$0	100-0-0
Non-Departmental	\$95,780	\$95,780	\$0	\$0	100-0-0
Education	\$52,271,554	\$52,271,554	\$0	\$0	
Current Expense	\$49,981,296	\$49,981,296	\$0	\$0	100-0-0
Recurring Capital	\$2,290,258	\$2,290,258	\$0	\$0	100-0-0
Non-Departmental	\$27,617,021	\$26,415,407	\$919,431	\$282,183	
Debt Service	\$19,711,775	\$18,510,161	\$919,431	\$282,183	93.9-4.7-1.4
Transfers to Other Funds	\$7,905,246	\$7,905,246	\$0	\$0	100-0-0
TOTAL	\$149,856,874	\$138,441,212	\$10,063,907	\$1,351,755	
	(100%)	(92.4%)	(6.7%)	(0.9%)	

a. Percentage breakdown by land use category (residential-commercial-agricultural). Default percentages were computed from 2005 assessed property valuation (residential - 80.8%; commercial - 17.4%; agricultural - 1.8%).