

**THE COST OF COMMUNITY SERVICES
IN CHAPEL HILL**

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THE COST OF COMMUNITY SERVICES IN CHAPEL HILL

An 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 land uses exceed the contribution of those land uses to the local government's revenue stream. At the request of the Town of Chapel Hill, I have analyzed the Town budget for the 2009-2010 fiscal year in order to quantify (a) the contribution to local government revenues of residential and commercial land uses, and (b) 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. The great bulk of such studies find a substantial imbalance between the net contributions of various land use categories. Specifically, those studies typically find that commercial land uses generate revenues that substantially exceed the cost of publicly provided services they receive; and that the public services provided to residential land uses are substantially greater than the revenues that they generate. For example, a COCS study that I conducted for Orange County in 2006 indicated that the residential sector contributes only 76¢ to the county's coffers for each dollar's worth of services that it receives, while commercial land uses contribute \$4.21 for each dollar's worth of services received.

The findings for Chapel Hill are different than the typical results of COCS studies in that that for both land uses there is a much greater balance between revenues and expenditures. I find that the residential sector contributes between 92¢ and 98¢ to the Town's coffers for each dollar's worth of services that it receives; and that commercial land uses generate \$1.07 and \$1.19 in revenues for each dollar of publicly provided services that they receive.

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 community's citizens. Rather it focuses on the more narrow issue of whether or not these land uses “pay their own way” with regard to Town 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 implicit in the existing pattern of development.

Methodology

The basic approach used in this research was quite simple. Working from the Town of Chapel Hill's most recent audited financial data, revenues and expenditures were allocated among two specific land use categories: residential and commercial. 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 demands for public funds. Conversely, a revenue-expenditure ratio less than 1.00 indicates that the sector's demand for publicly financed services exceeds its contribution to the local budget.

The basis for the current analysis is the actual revenues and expenditures recorded for the 2009-2010 fiscal year as reported in the Chapel Hill Comprehensive Annual Financial Report. As noted above, the allocation of these data to specific sectors was done in consultation with various 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 and/or activities records. However, in a number of instances existing records were not amenable to being broken out by land use categories. In many of these cases, I relied on a local official's best guess of how their department's efforts were allocated. Where the relevant official was unable to make such a guess, one of two allocation schemes was used. For services that exclusively benefit households (as opposed to commercial establishments)¹ – for example, parks and library services – 100% of expenditures were allocated to the residential sector. For departments whose activities benefited both residences and businesses, expenditures were allocated 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, as were expenditures related to UNC-Chapel Hill.

County figures for this “default” breakdown of assessed property valuation for 2009 are 74.3% residential, 25.7% commercial. However, Town officials believe – and county officials agree – that the county figures inappropriately counted multifamily residences (e.g. apartment complexes) as commercial land uses rather than residential land uses. The Town Finance Director estimates that if multifamily residences are in fact “counted” as residential land uses, then the appropriate breakdown of assessed property valuation for 2009 is 81.6% residential and 18.4% commercial. As of this writing, the County and Town officials have yet to reconcile these differences. As a result, I present parallel results based on the County and Town property tax numbers.

Revenues were handled in a manner similar to expenditures. Property tax revenues were allocated to specific land use categories based on the 2009 property assessments. Taxes and other revenue sources that are linked directly to commercial activities – for example, Article 39 sales taxes and privilege licenses – were allocated exclusively to the commercial sector. Revenues from sources associated exclusively with households (such as grants to the Parks and Recreation department) were allocated to the residential sector. Revenues raised by specific

¹ 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.

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 were allocated according to the “default” proportion of total property value accounted for by each land use category.

Results

Table 1 summarizes revenues and expenditures by land use category (a detailed department-by-department breakdown of revenues and expenditures is included in the Appendix tables).

Expenditures exceeded revenues for the residential land use category, while revenues exceeded expenditures for the commercial land use category. However, these imbalances are rather modest. Using the county’s property valuation figures, the revenue/expenditure ratio for the residential land use category is 0.93; this implies that for each dollar in property tax and other revenues generated by residential land uses, the county spends \$1.07 to provide services supporting those land uses. On the other hand, the revenue/expenditure ratio of 1.19 for the commercial land use category implies that revenues exceed expenditures for this land use category by 19 percent. It bears noting that these revenue/expenditure ratios suggest a substantially greater balance between expenditures and revenues for each land use than is usually found in these sorts of studies.

The results using the Town’s property valuation estimates indicate an even greater balance between expenditures and revenues for each land use. Specifically, the revenue/expenditure ratios are 0.98 and 1.07 for residential and commercial land uses, respectively. In sum, it would be fair to characterize the results using the Town’s figures as suggesting that residential land uses come extremely close to “paying their own way” in a narrow, local public finance sense.

Table 1. Revenues vs. Expenditures in Chapel Hill, 2009-2010

| | Residential | Commercial |
|---|-------------------------|-------------------------|
| County Property Valuation figures | | |
| Expenditures ^a | \$35,302,685 (74.8%) | \$11,881,823 (25.2%) |
| Revenues | \$32,979,382 (70.0%) | 14,163,953 (30.0%) |
| Revenues: Expenditures ratio ^b | 0.93 | 1.19 |
| Town Property Valuation figures | | |
| Expenditures ^a | \$35,922,446 (76.1%) | \$11,009,354 (23.9%) |
| Revenues | \$35,371,603 (75.0%) | 11,771,732 (25.0%) |
| Revenues: Expenditures ratio ^b | 0.98 | 1.07 |

a. Includes the \$1.059 million budget surplus transferred to the following year's general fund (allocated among land use categories in proportion to other expenditures).

b. 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.

Appendix Table 1. Chapel Hill General Fund Revenue (2009-2010): County Figures

| | Total | Residential | Commercial | Breakdown ^a |
|---------------------------------|-------------------|-------------------|-------------------|------------------------|
| Taxes | 35,101,573 | 23,624,235 | 11,436,165 | |
| Ad valorem taxes - current year | 25,277,625 | 18,781,275 | 6,496,350 | default |
| Ad valorem taxes - prior years | 137,703 | 102,313 | 35,390 | default |
| Interest on delinquent taxes | 73,351 | 54,500 | 18,851 | default |
| Local option sales taxes | | | | |
| - Article 39 | 3,120,938 | 0 | 3,120,938 | 0-100 |
| - Article 40 | 2,069,189 | 2,069,189 | 0 | 100-0 |
| - Article 42 | 1,659,007 | 1,659,007 | 0 | 100-0 |
| - Article 44 | 1,915,901 | 957,951 | 957,951 | 50-50 |
| Occupancy tax | 806,686 | 0 | 806,686 | 0-100 |
| Other taxes | 41,173 | | | |
| Licences and permits | 1,765,769 | 1,206,197 | 559,572 | |
| Motor vehicles | 410,050 | 304,667 | 105,383 | default |
| Privilege licenses | 137,009 | 0 | 137,009 | 0-100 |
| Building permits | 662,439 | 529,289 | 133,150 | 79.9-20.1 |
| Special use permits | 118,474 | 94,661 | 23,813 | 79.9-20.1 |
| Work zone traffic permits | 107,808 | 80,101 | 27,707 | default |
| Engineering permits | 11,791 | 8,053 | 3,738 | 68.3-31.7 |
| Fire inspection fees | 3,950 | 972 | 2,978 | 24.6-73.4 |
| Traffic impact study and fees | 244,129 | 181,388 | 62,741 | default |
| Police permits | 46,019 | 920 | 45,099 | 2-98 |
| Fire permits | 24,100 | 6,146 | 17,955 | 25.5-74.5 |
| Fines and forfeitures | 30,219 | 23,262 | 6,957 | |
| Garbage citations & leash laws | 3,150 | 3,150 | 0 | 100-0 |
| Parking tickets and towing fees | 27,069 | 20,112 | 6,957 | default |
| Charges for services | 2,765,026 | 2,234,512 | 530,514 | |
| Library fines and fees | 160,533 | 160,533 | 0 | 100-0 |
| Street cuts and right of way | 87,149 | 64,752 | 22,397 | default |
| Traffic signals | 221,066 | 164,252 | 56,814 | default |
| Cemetery staking | 5,090 | 5,090 | 0 | 100-0 |
| Fire districts | 894 | 628 | 266 | 70.3-29.7 |
| Solid waste collection | 367,557 | 224,210 | 143,347 | 61-39 |
| Planning review | 3,242 | 2,590 | 652 | 79-9-20.1 |
| Recreation | 724,794 | 724,794 | 0 | 100-0 |
| Charges to other funds | 1,194,701 | 887,663 | 307,038 | default |

Appendix Table 1. (cont'd)

| | Total | Residential | Commercial | Breakdown ^a |
|-----------------------------------|-------------------|-------------------|-------------------|------------------------|
| Intergovernmental revenues | 6,661,544 | 5,194,347 | 1,467,197 | |
| Endowment for the arts grant | 1,000 | 1,000 | 0 | 100-0 |
| Bulletproof vest grant | 4,102 | 2,420 | 1,682 | 59-41 |
| Beer and wine tax | 79,323 | 0 | 79,323 | 0-100 |
| Fuel tax funds | 1,337,758 | 993,954 | 343,804 | default |
| State fire protection | 1,210,647 | 897,089 | 313,558 | 74.1-25.9 |
| Utility franchise tax | 2,778,404 | 2,064,354 | 714,050 | default |
| Video programming tax | 756,330 | 756,330 | 0 | 100-0 |
| Supplemental PEG support | 56,075 | 56,075 | 0 | 100-0 |
| Solid waste disposal tax | 37,900 | 23,119 | 14,781 | 61-39 |
| Durham Tech contribution | 0 | 0 | 0 | 100-0 |
| State library aid | 34,079 | 34,079 | 0 | 100-0 |
| NC DENR grant | 19,650 | 19,650 | 0 | 100-0 |
| Mosquito abatement grant | 2,383 | 2,383 | 0 | 100-0 |
| Parks teen grant | 0 | 0 | 0 | 100-0 |
| Orange Co. recreational support | 83,760 | 83,760 | 0 | 100-0 |
| Orange Co. library contribution | 249,333 | 249,333 | 0 | 100-0 |
| Carrboro contribution | 6,800 | 6,800 | 0 | 100-0 |
| Miscellaneous local grants | 4,000 | 4,000 | 0 | 100-0 |
| Other | 799,136 | 646,857 | 152,279 | |
| Sales - planning and documents | 17,252 | 13,784 | 3,468 | 79-9-20.1 |
| Sales - fixed assets | 4,045 | 3,005 | 1,040 | default |
| Sales - miscellaneous | 1,114 | 828 | 286 | default |
| Cemetery lot sales | 102,850 | 102,850 | 0 | 100-0 |
| Court fees | 54,268 | 40,321 | 13,947 | default |
| Mutual aid reimbursements | 455,661 | 338,556 | 117,105 | default |
| Gifts and donations | 100,000 | 100,000 | 0 | 100-0 |
| Miscellaneous | 63,946 | 47,512 | 16,434 | default |
| Interest on investments | 61,241 | 49,973 | 11,268 | default |
| TOTAL REVENUES | 47,184,508 | 32,979,382 | 14,163,953 | |
| | | (70.0%) | (30.0%) | |

a. Default values based on county breakdown of residential vs. commercial property tax receipts (residential = 74.3%, commercial = 25.7%).

Appendix Table 2. Chapel Hill General Fund Expenditures (2009-2010): County Figures

| | Total | Residential | Commercial | Breakdown^a |
|------------------------------------|-------------------|--------------------|-------------------|------------------------------|
| General government | 5,747,900 | 4,270,690 | 1,477,210 | |
| Mayor/Council | 433,626 | 322,184 | 111,442 | default |
| Manager/Clerk | 1,626,167 | 1,208,242 | 417,925 | default |
| Human Resources | 802,431 | 596,206 | 206,225 | default |
| Business Management | 2,609,283 | 1,938,697 | 670,586 | default |
| Attorney | 276,393 | 205,360 | 71,033 | default |
| Environment and development | 12,594,140 | 9,239,042 | 3,355,098 | |
| Planning | 1,154,201 | 922,207 | 231,994 | 79.9-20.1 |
| Public Works | 11,439,939 | 8,316,836 | 3,123,103 | 68.8-31.2 |
| Public safety | 18,170,151 | 11,735,954 | 6,434,197 | |
| Police | 11,444,554 | 6,752,287 | 4,692,267 | 59-41 |
| Fire | 6,725,597 | 4,983,667 | 1,741,930 | 74.1-25.9 |
| Leisure activities | 8,024,020 | 8,024,020 | 0 | |
| Parks and recreation | 5,692,306 | 5,692,306 | 0 | 100-0 |
| Library | 2,331,714 | 2,331,714 | 0 | 100-0 |
| Nondepartmental | 1,589,528 | 1,240,825 | 348,703 | |
| Liability insurance | 356,008 | 264,514 | 91,494 | default |
| Supplemental PEG expense | 232,707 | 232,707 | 0 | 100-0 |
| Contributions to agencies | 837,050 | 621,928 | 215,122 | default |
| Contribution to OPEB liability | 0 | 0 | 0 | default |
| General Government | 163,763 | 121,675 | 42,087 | default |
| Total Current Expenditures | 46,125,739 | 34,510,531 | 11,615,208 | |
| Transfer to Future | 1,058,769 | 792,154 | 266,615 | |
| TOTAL EXPENDITURES | 47,184,508 | 35,302,685 | 11,881,823 | |
| | | (74.8%) | (25.2%) | |

a. Default values based on county breakdown of residential vs. commercial property tax receipts (residential = 74.3%, commercial - 25.7%)

Appendix Table 3. Chapel Hill General Fund Revenue (2009-2010): Town Figures

| | Total | Residential | Commercial | Breakdown ^a |
|---------------------------------|-------------------|-------------------|------------------|------------------------|
| Taxes | 35,101,573 | 25,484,909 | 9,575,492 | 100% |
| Ad valorem taxes - current year | 25,277,625 | 20,626,542 | 4,651,083 | default |
| Ad valorem taxes - prior years | 137,703 | 112,366 | 25,337 | default |
| Interest on delinquent taxes | 73,351 | 59,854 | 13,497 | default |
| Local option sales taxes | | | | |
| - Article 39 | 3,120,938 | 0 | 3,120,938 | 0-100 |
| - Article 40 | 2,069,189 | 2,069,189 | 0 | 100-0 |
| - Article 42 | 1,659,007 | 1,659,007 | 0 | 100-0 |
| - Article 44 | 1,915,901 | 957,951 | 957,951 | 50-50 |
| Occupancy tax | 806,686 | 0 | 806,686 | 0-100 |
| Other taxes | 41,173 | 33,597 | 7,576 | default |
| Licenses and permits | 1,765,769 | 1,282,739 | 483,030 | |
| Motor vehicles | 410,050 | 334,601 | 75,449 | default |
| Privilege licenses | 137,009 | 0 | 137,009 | 0-100 |
| Building permits | 662,439 | 546,512 | 115,927 | 82-5-17.5 |
| Special use permits | 118,474 | 97,741 | 20,733 | 82-5-17.5 |
| Work zone traffic permits | 107,808 | 87,971 | 19,837 | default |
| Engineering permits | 11,791 | 8,631 | 3,160 | 72-7-27.3 |
| Fire inspection fees | 3,950 | 1,007 | 2,943 | 25.5-74.5 |
| Traffic impact study and fees | 244,129 | 199,209 | 44,920 | default |
| Police permits | 46,019 | 920 | 45,099 | 2-98 |
| Fire permits | 24,100 | 6,146 | 17,955 | 25.5-74.5 |
| Fines and forfeitures | 30,219 | 25,238 | 4,981 | |
| Garbage citations & leash laws | 3,150 | 3,150 | 0 | 100-0 |
| Parking tickets and towing fees | 27,069 | 22,088 | 4,981 | default |
| Charges for services | 2,765,026 | 2,344,343 | 420,683 | |
| Library fines and fees | 160,533 | 160,533 | 0 | 100-0 |
| Street cuts and right of way | 87,149 | 71,114 | 16,035 | default |
| Traffic signals | 221,066 | 180,390 | 40,676 | default |
| Cemetery staking | 5,090 | 5,090 | 0 | 100-0 |
| Fire districts | 894 | 662 | 232 | 74.1-25.9 |
| Solid waste collection | 367,557 | 224,210 | 143,347 | 61-39 |
| Planning review | 3,242 | 2,675 | 567 | 82.5-17.5 |
| Recreation | 724,794 | 724,794 | 0 | 100-0 |
| Charges to other funds | 1,194,701 | 974,876 | 219,825 | default |

Appendix Table 3. (continued)

| | Total | Residential | Commercial | Breakdown |
|-----------------------------------|-------------------|-------------------|-------------------|-----------|
| Intergovernmental revenues | 6,661,544 | 5,494,827 | 1,166,717 | |
| Endowment for the arts grant | 1,000 | 1,000 | 0 | 100-0 |
| Bulletproof vest grant | 4,102 | 2,420 | 1,682 | 59-41 |
| Beer and wine tax | 79,323 | 0 | 79,323 | 0-100 |
| Fuel tax funds | 1,337,758 | 1,091,611 | 246,147 | default |
| State fire protection | 1,210,647 | 897,089 | 313,558 | 74.1-25.9 |
| Utility franchise tax | 2,778,404 | 2,267,178 | 511,226 | default |
| Video programming tax | 756,330 | 756,330 | 0 | 100-0 |
| Supplemental PEG support | 56,075 | 56,075 | 0 | 100-0 |
| Solid waste disposal tax | 37,900 | 23,119 | 14,781 | 61-39 |
| Durham Tech contribution | 0 | 0 | 0 | 100-0 |
| State library aid | 34,079 | 34,079 | 0 | 100-0 |
| NC DENR grant | 19,650 | 19,650 | 0 | 100-0 |
| Mosquito abatement grant | 2,383 | 2,383 | 0 | 100-0 |
| Parks teen grant | 0 | 0 | 0 | 100-0 |
| Orange Co. recreational support | 83,760 | 83,760 | 0 | 100-0 |
| Orange Co. library contribution | 249,333 | 249,333 | 0 | 100-0 |
| Carrboro contribution | 6,800 | 6,800 | 0 | 100-0 |
| Miscellaneous local grants | 4,000 | 4,000 | 0 | 100-0 |
| Other | 799,136 | 689,575 | 109,561 | |
| Sales - planning and documents | 17,252 | 14,233 | 3,019 | 82.5-17.5 |
| Sales - fixed assets | 4,045 | 3,301 | 744 | default |
| Sales - miscellaneous | 1,114 | 909 | 205 | default |
| Cemetery lot sales | 102,850 | 102,850 | 0 | 100-0 |
| Court fees | 54,268 | 44,283 | 9,985 | default |
| Mutual aid reimbursements* | 455,661 | 371,819 | 83,842 | default |
| Gifts and donations | 100,000 | 100,000 | 0 | 100-0 |
| Miscellaneous | 63,946 | 52,180 | 11,766 | default |
| Interest on investments | 61,241 | 49,973 | 11,268 | default |
| TOTAL REVENUES | 47,184,508 | 35,371,603 | 11,771,732 | |
| | | (75.0%) | (25.0%) | |

a. Default values based on county breakdown of residential vs. commercial property tax receipts (residential = 81.6%, commercial - 18.4%)

Appendix Table 4. Chapel Hill General Fund Expenditures (2009-2010): Town Figures

| | Total | Residential | Commercial | Breakdown |
|------------------------------------|-------------------|--------------------|-------------------|------------------|
| General government | 5,747,900 | 4,690,286 | 1,057,614 | |
| Mayor/Council | 433,626 | 353,838.82 | 79,787 | default |
| Manager/Clerk | 1,626,167 | 1,326,952.27 | 299,215 | default |
| Human Resources | 802,431 | 654,783.70 | 147,647 | default |
| Business Management | 2,609,283 | 2,129,174.93 | 480,108 | default |
| Attorney | 276,393 | 225,536.69 | 50,856 | default |
| Environment and development | 12,594,140 | 9,326,251 | 3,267,889 | |
| Planning | 1,154,201 | 952,216 | 201,985 | 82.5-17.5 |
| Public Works | 11,439,939 | 8,374,035 | 3,065,904 | 73.2-26.8 |
| Public safety | 18,170,151 | 11,735,954 | 6,434,197 | |
| Police | 11,444,554 | 6,752,287 | 4,692,267 | 59-41 |
| Fire | 6,725,597 | 4,983,667 | 1,741,930 | 74.1-25.9 |
| Leisure activities | 8,024,020 | 8,024,020 | 0 | |
| Parks and recreation | 5,692,306 | 5,692,306 | 0 | 100-0 |
| Library | 2,331,714 | 2,331,714 | 0 | 100-0 |
| Nondepartmental | 1,589,528 | 1,339,873 | 249,655 | |
| Liability insurance | 356,008 | 290,502.53 | 65,505 | default |
| Supplemental PEG expense | 232,707 | 232,707 | 0 | 100-0 |
| Contributions to agencies | 837,050 | 683,032.80 | 154,017 | default |
| Contribution to OPEB liability | 0 | 0 | 0 | default |
| General Government | 163,763 | 133,630.61 | 30,132 | default |
| Total Current Expenditures | 46,125,739 | 35,116,385 | 11,009,354 | |
| Transfer to Future | 1,058,769 | 806,061 | 252,708 | |
| TOTAL EXPENDITURES | 47,184,508 | 35,922,446 | 11,262,063 | |
| | | (76.1%) | (23.9%) | |

a. Default values based on county breakdown of residential vs. commercial property tax receipts (residential = 81.6%, commercial - 18.4%).