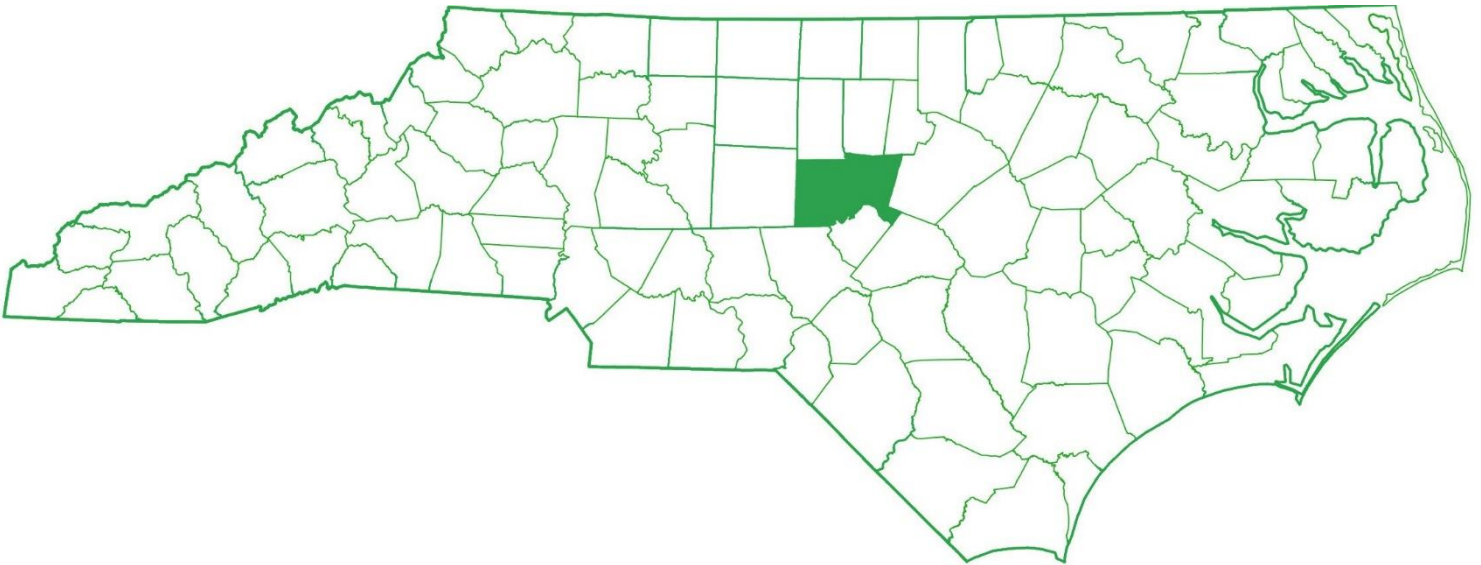


# Chatham County North Carolina

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## Cost of Community Services Study



Prepared by  
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University of  
MOUNT OLIVE

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Mr. Edward Olive completed the research for the Chatham County, North Carolina Cost of Community Services (COCS) Study. Mr. Olive serves as Director of the Lois G. Britt Agribusiness Center at the University of Mount Olive. He received his Bachelor of Science degree in AgriScience Education from the University of Mount Olive and a Master of Business Administration with a concentration in Marketing from Regent University.

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# Executive Summary

Chatham County, North Carolina is under intense development pressures. Since the inception of this project, several very large projects have been announced in the county including VinFast, Wolfspeed, Coca-Cola, Asteria: A Storyliving by Disney Community<sup>1</sup>. Some of the projects are residential, others are commercial or industrial with the promise of added jobs which will in turn generate even more residential growth within the county. While growth is inevitable, it is imperative for local leaders to balance the growth and understand the assets that already exist within the county.

The Chatham County website<sup>2</sup>, the Chatham Chamber of Commerce<sup>3</sup>, and even the Annual Comprehensive Financial Report that was utilized as a basis for this study all note the charm and value of agriculture to Chatham County. Agriculture adds scenic beauty and rural quality of life that is desired by existing and future Chatham County residents. It is imperative that leaders recognize the importance and value of agriculture, not only to the quality of life of Chatham residents, but also to the economic viability and future success of the county. Once agricultural land has been taken out of production, chance are that it will never produce crops or support livestock again.

Review of county government expenditures and revenue collections with respect to land use may be useful as local officials evaluate economic development and county planning opportunities. A Cost of Community Services (COCS) Study can provide county leaders with a better understanding of the net gain or loss for various land use categories.

The use of Cost of Community Services Studies to give a snapshot of county or municipality revenue-to-expenditure ratio was initiated by the American Farmland Trust (AFT). From 2001 to 2016, a report compiled by the AFT realized that land, nationwide,

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<sup>1</sup> Chatham County Economic Development Corporation. Welcome to Chatham County. <https://www.chathamcdc.org/>

<sup>2</sup> Chatham County NC. Our Community. <https://www.chathamcountync.gov/our-community#:~:text=Founded%20in%201771%20and%20located,Triangle%20Region%20and%20the%20Piedmont>

<sup>3</sup> Chatham Chamber of Commerce. About the Chamber. <https://ccucc.net/>

was being converted from agricultural uses to non-farm uses at a rate of 2,000 acres per day<sup>4</sup>. North Carolina alone lost more than 7,500 farms and over almost 650,000 acres agricultural land to other uses between 2002 and 2017. These trends are similar to those experienced in Chatham County with a loss of twelve farms in the county and nearly 13,000 acres of farmland lost in the same time period<sup>5</sup>. Chatham County's location in central North Carolina and its proximity to Raleigh, the state capital, the Research Triangle Park, Greensboro, and other areas of interest in the region provides the potential to increase land values and competition for land for non-agricultural uses even more. A Cost of Community Services Study can serve as a valuable tool to plan for growth and to define a balance between open lands and development.

The Chatham County Cost of Community Services Study was conducted using the expenditure and revenue data for each department from the fiscal year 2021-22 Annual Comprehensive Financial Report provided by the Chatham County Manager's Office. To accurately determine expenditure and revenue data, respective department directors or designated representatives were asked to provide a percentage breakdown of fiscal resources devoted to providing necessary community services to three land use groups. The percentage of county revenues derived from each land use was also determined. Land use designations evaluated were 1) residential, 2) commercial/industrial, and 3) agricultural/forestry.<sup>6</sup>

**This Chatham County COCS Study demonstrates the following outcomes for the fiscal year 2021-22:**

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<sup>4</sup> American Farmland Trust, [https://farmlandinfo.org/wp-content/uploads/sites/2/2022/08/AFT\\_FUT\\_Abundant-Future-7\\_29\\_22-WEB.pdf](https://farmlandinfo.org/wp-content/uploads/sites/2/2022/08/AFT_FUT_Abundant-Future-7_29_22-WEB.pdf)

<sup>5</sup> USDA Census of Agriculture, State Data (2002, 2007, 2012, 2017), [https://www.nass.usda.gov/Publications/AgCensus/2017/Full\\_Report/Volume\\_1,\\_Chapter\\_1\\_State\\_Level/North\\_Carolina/st37\\_1\\_0001\\_0001.pdf](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_State_Level/North_Carolina/st37_1_0001_0001.pdf)

<sup>6</sup> The land category designations are the following:

- Working and open lands includes farms, forests and open space.
- Commercial and Industrial are combined and includes firms.
- Residential development includes all housing, including rentals.

Note also that in the event there was evidence of a migrant agricultural work force, temporary housing for these workers was considered part of agricultural land use. Additionally, the farm business has been separated from the farm residence, with the property value of farm residences assessed in the same manner as any other residences. Therefore farm residences would be included in the residential land use category.

- ***For each \$1 of county revenue contributed by residential uses, the county spent \$1.18 to provide necessary community services for those residential land owners.***
  
- ***For each \$1 of county revenue derived from commercial uses, Chatham County spent \$0.29 for county-provided services.***
  
- ***For each \$1 of income received by Chatham County for agricultural/forestry uses, the county spent \$0.35 to provide required community services.***

Residential land uses created a net loss of \$17,751,200.06 while the other two land use categories generated surpluses of: \$27,456,459.24 from commercial and \$2,228,403.82 from farmland (Table 1).

The ratios generated from expenditure/revenue data for all land uses in Chatham County are similar to other Cost of Community Services Studies in North Carolina and across the country. These ratios show that commercial properties provide the highest net gain with every dollar of revenue only requiring 29 cents in services to commercial properties. Agricultural land follows with a cost of 35 cents on each dollar earned from the same properties and residential lands are actually a net loss to the county as residential land use requires \$1.18 in services for every dollar of revenue they bring to Chatham County (Appendix Table 4B). The gain realized in commercial and agricultural properties help to cover the residential deficit.

**Table 1. Chatham County Cost of Community Services Study Findings**

<b>Chatham County</b>	<b>FY 2021-22 Actual</b>	<b>Residential</b>	<b>Commercial</b>	<b>Farmland</b>
<b>Total Revenues</b>	\$138,341,515.00	\$96,384,783.90	\$38,537,115.17	\$3,419,615.93
<b>Total Expenditures</b>	\$126,407,852.00	\$114,135,983.96	\$11,080,655.92	\$1,191,212.11
<b>Net contribution</b>	\$11,933,663.00	(\$17,751,200.06)	\$27,456,459.25	\$2,228,403.82
<b>Land use ratio*– Expenses/Revenue</b>		\$1: \$1.18	\$1: \$0.29	\$1: \$0.35

\*The cost of services provided for each \$1 of revenue.

According to the 2020 Census, Chatham County had a population of 76,285 residents. This is recognized as a more than 20% increase in population from the 2010 US Census population count of 63,505 for Chatham County<sup>7</sup>. Since 2020, population projections exhibit an expectation of a continuing increase with estimates in 2022 of 79,864<sup>8</sup> and a projected population increase to 90,115 by 2030 according to the NC Office of State Budget and Management<sup>9</sup>. Chatham County had a tax rate of \$0.665 in the 2021-22 fiscal year. The Chatham County real property tax rate is the 49<sup>th</sup> highest tax rate in NC<sup>10</sup>.

Additionally, Chatham County invests more in community services to land uses associated with commercial/industrial ventures (8.77%) than agriculture and forestry (0.94%) although the combined total of expenditures for the two land uses still less than 10% (9.7%) of the county’s total expenditures for community services. In summary,

<sup>7</sup> U.S. Census Bureau, 2020 Census, North Carolina County Population. <https://www.census.gov/quickfacts/fact/table/chathamcountynorthcarolina/POP010220#POP010220>

<sup>8</sup> U.S. Census Bureau, 2020 Census, North Carolina County Population. <https://www.census.gov/quickfacts/fact/table/chathamcountynorthcarolina/POP010220#POP010220>

<sup>9</sup> NC Office of Budget and Management. <https://www.osbm.nc.gov/facts-figures/population-demographics/state-demographer/countystate-population-projections/population-growth-2020-2030>

<sup>10</sup> N.C. Department of Revenue, 2023 North Carolina Property Tax Rates. <https://www.ncdor.gov/taxes-forms/property-tax/property-tax-rates/county-property-tax-rates-last-five-years>

Chatham County expends a much lesser amount to provide services to agricultural and commercial land uses as compared with residential uses. The combined revenue from agricultural and commercial/industrial land uses are important to maintaining the fiscal stability of the county.

Studies have revealed when a rural community with a large base of farm and forestland begins to convert that land into residential development, the local government is virtually guaranteed to head down a path of deteriorating financial stability and increasing local property tax rates. Whether this is planned growth strategy or due to market forces and a lack of growth control measures<sup>11</sup>. Differential property tax programs are justified as a way to provide an incentive to keep land open and in active agricultural use. Even with the present-use value tax program, agricultural properties contribute a surplus of revenue that contributes to public services for Chatham County residents.<sup>12</sup>

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<sup>11</sup> Dorfman, Jeffrey H. "The Fiscal Impacts of Land Uses on Local Government" Land Use Studies Initiative and Department of Agricultural & Applied Economics The University of Georgia, April 2006

<sup>12</sup> Present-Use Value, or PUV, is a program established by N.C.G.S. §§ 105—277.2 to .7 and administered by the county tax assessor through which qualifying property can be assessed, for property tax purposes, based on its use as agricultural, horticultural or forest land. The present-use value is the value of the land based solely on its ability to produce income. Qualifying property is assessed at its present-use value rather than its market value. The tax office also maintains a market value for the land. The difference between the market value and the present-use value is maintained in the tax records as deferred taxes. When land becomes disqualified from the program, the deferred taxes for the current and three previous years with interest will usually become payable and due.



# Introduction

Local leadership for Chatham County recognized the need to determine the financial impact of various land uses within the county. With the proximity to the state capital of Raleigh, and other opportunities for growth in the area, it is imperative to note the economic impact of agriculture and agribusiness to the county and region. Chatham County remains a strong agricultural county with abundant strengths to support agriculture and agribusiness including crucial soil and water resources; a strong livestock sector complemented by crop production to improve agricultural diversity; genuine public support for agriculture; access to major transportation corridors; and market access for agricultural commodities and products. Taking steps to preserve and protect agricultural and open lands in Chatham County is beneficial to agriculture as well as the wellbeing of Chatham County and the region as a whole.

Simply put, saving land saves money. While residents and many commercial entities demand expensive public services and infrastructure, privately-owned working lands enhance community character and quality of life without requiring significant public expenditures. Their fiscal contributions typically are overlooked, but like other commercial and industrial land uses, agricultural (farm, ranch and forest) lands generate surplus revenues that play an essential role in balancing community budgets. This, perhaps, is the most important lesson learned from Cost of Community Services (COCS) Studies.<sup>13</sup>

Numerous 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 4A of the Appendix. The median ratio states that for every dollar the county generates from the residential category, it spends \$1.16 in services. The commercial/industrial and farm/forestland categories show that, on average, the

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<sup>13</sup> Best, Wayne County Cost of Community Services Study (2011)

government receives more than it spends and therefore, these land uses create a surplus. These numbers show the fallacy of depending on residential development as the road to a sound growth policy. Residential development to date has generated sufficient revenue to cover its associated expenditures in only one instance in various NC county studies or other county studies across the nation. The minimum reported ratio for national studies conducted and reported by the American Farmland Trust was 1:\$1.01 in Groton County, New Hampshire<sup>14</sup>. The COCS Study completed in 2015 for Pamlico County located in the coastal region of NC and with a population of 13,000 persons reported a ratio of 1:\$0.99 indicating that residential properties were at the breakeven point and was below the last reported minimum. The rural nature of the county, the lack of development pressure and minimal investments in community services by the county was ascertained to be the reason for this balance in revenue and expenditures for residential properties<sup>15</sup>.

American Farmland Trust developed this low-cost fiscal analysis to contribute local knowledge to decisions about land use. The purpose of this research is not to suggest any prescriptive course of action but to provide a snapshot of existing conditions. By using statistics and financial land use and economic data specific to Chatham County, this COCS Study can help move public dialogue from emotion to analysis and from speculation to projection. It provides reliable financial data, allowing officials to make informed planning decisions and evaluate strategies that will maintain a balance in the distribution of future land uses<sup>16</sup>.

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<sup>14</sup> American Farmland Trust, Farmland Information Center (September 2016. Cost of Community Services Studies. [https://farmlandinfo.org/wp-content/uploads/sites/2/2019/09/Cost\\_of\\_Community\\_Services\\_Studies\\_AFT\\_FIC\\_201609.pdf](https://farmlandinfo.org/wp-content/uploads/sites/2/2019/09/Cost_of_Community_Services_Studies_AFT_FIC_201609.pdf)

<sup>15</sup> Olive, Edward. 2015. Pamlico County North Carolina Cost of Community Services Study. <https://umo.edu/wp-content/uploads/Pamlico-County-Cost-of-Community-Services-Study-with-Appendix-Final-For-Print.pdf>

<sup>16</sup> Best, Wayne County Cost of Community Services Study (2011)

# Cost of Community Services Studies<sup>17</sup>

A Cost of Community Services (COCS) Study is a case study approach used to determine an individual community's public service costs versus revenues based on current land use, specifically residential, commercial/industrial, and farm/forest. Publicly available financial reports (Audited Financial Statements or the Annual Comprehensive Financial Report (ACFR)), departmental records and budgets, and assessor's data are used to allocate revenues and expenditures to determine the financial effects of the various land uses. COCS Studies are based on real numbers, making them different from traditional fiscal impact analysis, which is predictive and speculative. They show what services taxpayers receive from their local government and how local government revenues and expenditures relate to land use.

American Farmland Trust (AFT) first became interested in COCS Studies and growth-related issues in the 1980s because agricultural lands were converted *more commonly* to development than any other type of land. Farmland is desirable for building because it tends to be flat, well drained and has few physical limitations for development. It is also more affordable to developers than to farmers and ranchers. This discrepancy continues to grow especially in cases like Chatham County that are close to metropolitan areas like Raleigh and Greensboro. COCS Studies were originally used to investigate three commonly held claims:

1. Open lands—including working agricultural and forest lands—are an interim land use that should be developed to their “highest and best use”;
2. Agricultural land gets an “unfair” tax break when it is assessed at its actual use value for farming or ranching instead of at its potential use value for development;
3. Residential development will lower property taxes by increasing the tax base.

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<sup>17</sup> Freedgood, [Cost of Community Services Studies: Making the Case for Conservation](#). American Farmland Trust, 2002.

In response to these claims, it is of particular relevance to consider the fiscal contributions of privately-owned natural resource lands in areas, such as Chatham County, where farming and forestry are important industries. Both commercial and agricultural lands generate less revenue than residential properties in Chatham County contributing 27.86% and 2.47% respectively. Working lands require a relatively small amount of public expenditure in comparison due to their modest demands for infrastructure and public services. Agricultural land uses account for 0.94% of Chatham County's expenditures while commercial and industrial uses result in a 8.77% of Chatham County's expenditures for the 2021-22 fiscal year. While it is true that an acre of land with a new house generates more total revenue than an acre of farmland, this information provides little insight into a community's fiscal balance. As a result, COCS Studies are used to determine the *net* fiscal impact of land uses in the present by comparing total revenues to total expenditures to ascertain the overall contribution of different land uses.

COCS Studies are conducted for a variety of other reasons, such as supporting existing land protection programs or developing new ones. Some communities are interested in raising awareness about the benefits of protecting natural resources, while others may have broader planning goals. Other primary reasons for COCS Studies are: to compare the impacts of different land uses, to direct new development toward existing infrastructure, or to supplement a comprehensive planning process. *Above all, COCS Studies are most valuable to communities that are concerned about farm and other open lands.*

COCS Studies are best used in communities similar to Chatham County that rely heavily on property taxes to generate revenues. Property taxes make up sixty-seven percent of the county's revenue. It is important to recognize that COCS Studies are fiscal, not economic analyses and therefore do not examine direct economic benefits or secondary impacts of a given land use to the local or regional economy. COCS Studies are not intended to judge the value of one land use over another or compare one type of new development to another. *The particular niche of a COCS Study is to identify*

existing land use relationships and evaluate the contribution of agricultural and other open lands on equal ground with developed land uses. Note, the data provided in COCS studies are “snapshots in time,” and as such are neither predictive nor speculative.

Table 1 classifies categories of information that a Cost of Community Services Study can provide and what their ultimate utility can illustrate to local governmental officials.

<b>Table 1. Uses of Cost of Community Services Studies</b>	
<b>COCS Studies Do:</b>	<b>COCS Studies Do Not:</b>
<ul style="list-style-type: none"> <li>○ Provide a baseline of information to help local officials and citizens make informed land use decisions.</li> <li>○ Offer the benefit of hindsight to see the effect of development patterns to date.</li> <li>○ Demonstrate the relative fiscal importance of privately owned land in agricultural, forest or other open space uses.</li> <li>○ Make similar assumptions about apportioning costs to agricultural land as to commercial/industrial land.</li> <li>○ Have a straightforward methodology and easy-to-understand findings.</li> </ul>	<ul style="list-style-type: none"> <li>○ Project future costs of services incurred by new development.</li> <li>○ Determine the direct or indirect value of a particular land use to the local or regional economy.</li> <li>○ Quantify the non-market costs and benefits that occur when agricultural land is converted to urban uses.</li> <li>○ Judge the intrinsic value of any particular land use.</li> <li>○ Compare the costs of different types of residential development.</li> <li>○ Treat agricultural and other working lands as residential development.</li> </ul>

Source: Freedgood, Julia. Cost of Community Services Studies: Making the Case for Conservation. American Farmland Trust. 2002.

# Methodology

The following standard land use definitions are adapted to individual COCS Studies.

- **Agricultural development** (Farm, Forest and Open Land) – All privately-owned land and buildings associated with agricultural and forestry industries, including temporary housing for seasonal workers who are not permanent residents.
- **Residential development** – All single-and multi-family residences and apartment buildings, including farmhouses, residences attached to other kinds of businesses and rental units; all town-owned property used for active recreation or social functions for local residents.
- **Commercial and Industrial Development**– All privately-owned buildings and land associated with business purposes, the manufacturing of goods or the provision of services, excluding agricultural and forestry industries, and utilities. For simplicity, the term “commercial” will denote both industrial and commercial land uses for the remainder of this study. Likewise, “agricultural” will refer to farm and forest land uses.

There are three basic steps in the process of conducting a COCS Study:

1. Collect data: Obtain relevant reports and other financial records, interview officials, boards and departments.
2. Allocate revenues and expenditures by land use.
3. Analyze data and calculate revenue-to-expenditure ratios for each land use category.

The COCS revenue-to-expenditure ratio compares how many dollars’ worth of local government services are demanded for each dollar collected. A ratio greater than 1.00 suggests that for every dollar of revenue collected from a given category of land, more than one dollar is spent. Conversely, an expenditure ratio less than 1.00 indicates that

for a given category of land, demand for publicly-financed services is less than that sector's contribution to the local budget.

Most studies show that the COCS ratio is substantially above 1 for residential land while ratios for the other two land use categories are usually substantially below 1. Chatham County financial records revealed that the COCS ratio for all land uses followed this trend with residential land uses above 1 and agricultural and commercial/industrial below 1.

# COCS Method for Chatham County

The Chatham County Cost of Community Services Study is based on fiscal data from the 2021-2022 budget year. The reported actual expenditures for Chatham County for the fiscal year that ended on June 30, 2022 was \$126,407,852 for the six departmental categories and the debt service classification. A breakdown of the expenditures revealed that 90.29 percent of expenditures were to provide services to residential land uses, 8.77 percent were to provide services to commercial/industrial land uses and 0.94 percent were attributed to agricultural and forestry land uses.

Actual county revenues received from taxes, permits, sales and services, and other fees, services, and investments, during this same fiscal period were reported as \$138,341,515. Of this total, 69.67 percent was generated from residential property taxes and other revenue sources, 27.86 percent was generated by commercial/industrial land use, and 2.47 percent resulted from agricultural and forestry use. The county manager's office and each department provided data specific to county revenues and expenditures for each department and the distribution of funds and services that were devoted to each land use: 1) Residential, 2) Commercial/Industrial, and 3) Agricultural/Forestland.

The Annual Comprehensive Financial Report for Chatham County compiled by the Chatham County Finance Department, directed by Roy Lynch, and audited by Martin Starnes & Associates, CPAs, P.A. was used to derive the actual revenues and expenditures for the fiscal year ending June 30, 2022. Revenues and expenditures were allocated among the three defined land uses based on data provided by the county manager's office and individual county departments. Data obtained was entered into a spreadsheet to derive the total amount of funds allocated by each department to each land use.



Categories included in Chatham County's revenues were:

- Property Taxes
- Sales Taxes
- Other Taxes
- Intergovernmental
- Permits and Fees
- Sales and Services
- Investment Earnings
- Other General Revenues

Real property taxes were collected for the general fund at a rate of \$0.6650 (66.5 cents) per \$100 of property value in 2021-2022.

Expenditures for the County came from the eight fund services: general government, public safety, economic and physical development, human services, cultural and recreational, education, and debt service. The largest county fund was, by far, education with expenditures of \$41.68 million.

Expenditures were allocated in one of two ways. For services that exclusively benefited households (as opposed to commercial establishments)—for example, public schools—100% of expenditures were allocated to the residential sector. For departments whose activities benefited both businesses (including agricultural businesses) and residences, expenditures were allocated based on the proportion of total value accounted for by each land use category.

If it was difficult to derive a direct percentage or distribution of the services devoted to a particular land use, a default percentage was determined based on the assessed property valuations for 2021-22 fiscal year for each land use. The information collected from the Chatham County Tax Office is shown below. This default breakdown is as follows:

- 89.65% Residential (including Historic Property)
- 9.95% Commercial/Industrial
- 0.4% Agricultural (PUV)

While the assessed value is what is generally utilized for calculating the default percentage used for cost of community services studies, it is interesting to compare that with market value and taxes collected calculations. Interestingly, according to information provided from the Chatham County Tax Office, agriculture and forestry account for eleven percent of the market value for property in the county, higher than the nine percent for commercial and industrial property but much lower than the 80 percent that is held by residential land uses. Agriculture also makes up 3.88% of the taxes collected, as compared with 11.56% for commercial/industrial and 84.56 of residential.

# Findings

Supporting information for the findings expressed in this section can be found in the Appendix.

Appendix Table 1 shows the distribution of revenues for Chatham County in the 2021-22 fiscal year. The actual county fund revenues for 2021-2022 were \$138,341,515.00. Ad valorem property taxes, which are taxes based on the assessed value of real estate or personal property including motor vehicles, generated the most revenue with \$92,588,704.00, or almost 67% of the county's total revenue. Local option sales tax revenues were the next highest at \$25,697,393 which is about 19 percent of the total revenue. Intergovernmental revenues, including restricted and unrestricted, made up 10.55% of county government income at \$14,591,204.00. Sales and services revenue followed at \$3,289,878 which accounted 2.38 percent of revenue collected. Permits and fees accounted for just more than 2% of revenues which was nearly 2.84 million. Other taxes and other general revenues totaled 2.91 percent of the county's total revenue for 2021-22 contributing \$4,026,000. Additional detail of revenues collected is found in Appendix Table 6.

Appendix Table 2 shows the distribution of actual expenditures for the fiscal year 2021-2022 for Chatham County (additional detail may be found in Appendix Table 7). Chatham County actual expenditures for fiscal year 2021-2022 for the 6 county departments and inclusive of debt service expenditures (principal and interest and other fees) were \$126,407,852. Education represented the largest expenditure amount at more than \$41 million, or almost 33 percent of the total county government expenditures. Debt service is the next largest expenditure for the county with nearly nineteen percent of the total expenditures posting almost more than \$23 million. Public safety accounts for the third largest expenditure for the county at \$22,532,811 or nearly 18 percent of county expenditures were required. Human services spent more than \$18 million, or 14.42 percent of the county departmental expenditures. General government expenditures totaled \$13.3 million which makes up 10.5 percent of the total

expenditures. The next expenditure category is economic and physical development at \$4.2 million which is 3.33% of the county's total expenditures for the 2021-22 year. The lowest expenditure category for Chatham County in the 2021-22 fiscal year was cultural and recreational at just more than 2 percent totaling \$2,761,470.

Appendix Table 3 provides the revenue-to-expenditure ratios that were developed through the Chatham County Cost of Community Services Study. In summary, this COCS Study found that in Chatham County, 90.29 percent of county expenditures were used to provide services for residential land use compared with 8.77 percent for commercial and 0.94 percent for farmland and forestland. This was compared with the revenues which were divided into the same land use classification as follows: 69.67% from residential land uses, 27.86 from commercial and industrial uses and 2.47% from agricultural and forestry. ***In Chatham County for each dollar of residential revenue earned, the county spent approximately \$1.18 to provide services to those residents during 2021-22.*** This ratio is slightly higher than the median of national COCS Studies noted by the American Farmland Trust, which is \$1:\$1.16. This revenue-to-expenditure ratio represents a net loss to the county as a result of the provision of community services to the residential property owners of Chatham County. A net loss is commonly found in COCS Studies with regard to residential land use as the majority of expenditures are used to benefit and serve residents of the county. The largest departmental expenditures in Chatham County provided to residential property owners was attributed to Education which makes up almost one-third of the county's total expenditures for residential property uses.

Revenue income for both commercial/industrial and agricultural/forestry resulted in a net gain to the county when evaluating the revenue-to-expenditure ratios. These land use revenues offset the net loss realized from residential land uses. Most COCS Studies are conducted in counties which are experiencing a loss of open land as a result of an increase in residential development or are anticipating this to occur due to developmental pressures related to population growth. Chatham County's population grew by 12,780 residents, a growth of 10% from 2010 to 2020 according to Census

numbers<sup>18</sup>. This population increase and anticipated continued growth in Chatham County is important to recognize and note the current financial condition with respect to residential land uses as compared with commercial and agricultural uses. The residential revenue-to-expenditure ratio provided in the COCS Study provides county leaders the ability to understand the importance of maintaining a balance in land uses as they relate to the county's fiscal stability. As residential development continues to evolve in Chatham County, it is expected that this ratio will increase as the volume of services and the associated costs to provide these services to residents increase. By maintaining and supporting agricultural and commercial land uses in Chatham County, county leaders can ensure a sustainable and fiscally responsible balance between these three important land use categories.

As noted, both commercial/industrial and agricultural/forestry land uses demonstrated a net gain to the county when the revenue-to-expenditure ratio was evaluated. ***For each \$1 of revenue generated from commercial/industrial land uses, Chatham County spent \$0.29 to provide services to those commercial entities.*** Agricultural lands also represented a positive ratio of return for the county's investment in agricultural and forestry related expenditures. ***For each dollar of revenue derived from agricultural and forested land, Chatham County spent \$0.35 to provide necessary services for those land uses.*** These ratios are comparable with the median of other studies from the American Farmland Trust and are slightly lower than other county studies in NC. The lower revenue-to-expenditure ratio noted for commercial/industrial land use explains the interest of county leaders and economic developers in counties across the state and nation to encourage and provide incentives for this type of land use. The net gain associated with agricultural lands, while often overlooked, serves as an important component of the necessary balance essential to the economic stability of county governments.

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<sup>18</sup> U.S. Census Bureau  
<https://www.census.gov/quickfacts/fact/table/chathamcountynorthcarolina/POP010220#POP010220>

As noted, Appendix Tables 4A and 4B provide ratio comparisons with national Cost of Community Services Studies and NC studies. As mentioned in the Table 3 synopsis, the residential ratio calculated in the Chatham County Cost of Community Services Study is similar to the median from national studies and most of the residential ratios in NC studies. Most studies show that the COCS ratio is substantially above 1 for residential land use while ratios for the other two land use categories are usually substantially below 1. In the Appendix Tables 4A&B the median “national” residential revenue-to-expenditure ratio is 1:1.16, while the median commercial and agricultural are 1:0.30 and 1:0.37, respectively. In North Carolina, over nineteen counties have had Cost of Community Services studies conducted. The median residential revenue-to-expenditure ratio for these NC studies was 1:1.23, while the median commercial and agricultural are 1:0.36 and 1:0.59, respectively.

The agricultural land use ratio of revenue-to-expenditures in Chatham County (1:0.35) is similar to the median ratio nationwide (1:0.37) and the lower than median ratio for North Carolina studies (1:0.59).

The commercial/industrial ratio of 1:0.29 in Chatham County is slightly lower than the national median (1:0.30) and the median of the other North Carolina studies (1:0.36).

The break-even home value for Chatham County is provided in Appendix Table 5. The revenue and cost of service numbers that lie behind the ratios reported in this study can also be used to calculate the home value necessary for a county to break-even on residential services provided. 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 with number of children, but are not particularly correlated with home value. Given this assumption, Appendix Table 5 presents an analysis which computes the residential property value needed to generate an exact balance between average revenues contributed by current housing units and the average value of public services consumed by households.

The “breakeven” house price was computed assuming that any new household would consume the average amount of services reflected in the 2021-2022 budget – i.e., that they would possess the average number of school children, 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 current property tax rate of 66.5¢ per \$100. Based on these assumptions, the breakeven property value was computed as \$1,450,033.72. This break-even value is very high, but highlights the amount of expenditures for residential property uses that are covered by agricultural and commercial uses given the current property tax rate to help the county maintain its fiscal solvency.

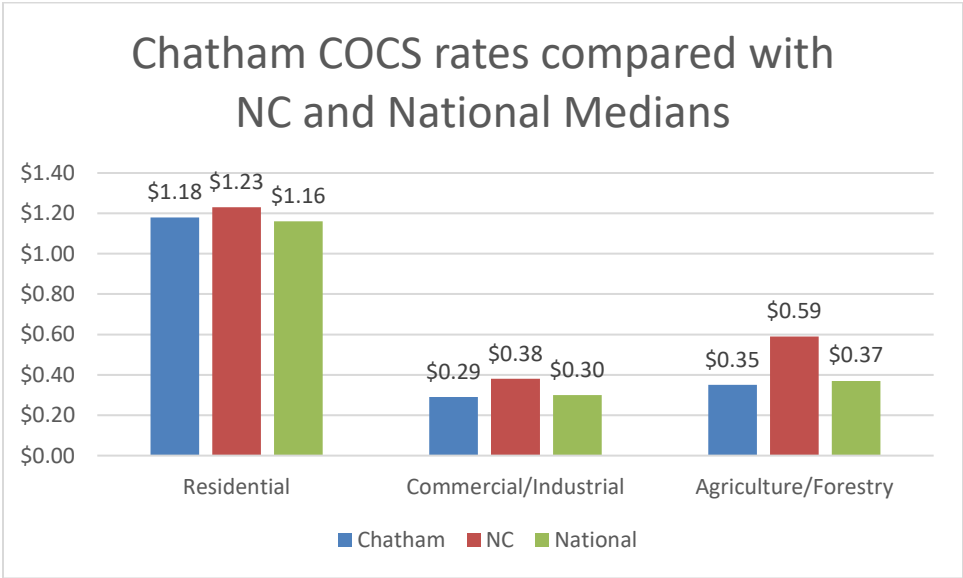
Table 6 of the Appendix provides a listing of the actual revenues broken down by the land uses evaluated in the study. For fiscal year 2021-22, Chatham County revenues totaled \$138,341,515. The breakdown percentages were provided by the county tax office and county manager’s office after evaluation of departmental revenues. Table 6 accurately represents the distribution of each revenue line item and provides the percentage that is attributed to each land use. This information was compared with the expenditure information to calculate the ratio of Chatham County’s revenues-to-expenditures. The default breakdown percentage for both revenues and expenditures is: Residential (including historic) 89.65%; Commercial/Industrial 9.95%; Agriculture/Forestry 0.4% which was derived by county tax records and property valuations.

Appendix Table 7 details the expenditures, totaling \$126,407,852, for the county in fiscal year 2021-2022. These expenditures are distributed by land use with the percentages provided by county administrators. This information was used with the revenue data to calculate the ratio of county revenues-to-expenditures. The default breakdown percentage for both revenues and expenditures is: Residential (including historic) 89.65%; Commercial/Industrial 9.95%; Agriculture/Forestry 0.4% which was derived by county tax records and property valuations.

# Discussion

COCS Studies provide a baseline of information to help local officials and citizens make informed land use decisions. They offer the benefit of hindsight to see the effect of development patterns to date. They also demonstrate the fiscal importance of privately owned land in farm and forest uses.

The ratios found in Chatham County are slightly higher than the national median value for the residential sector. The residential ratio of \$1 of revenue to \$1.18 expenditure is within two cents of the national median of \$1.16 and five cents lower than the median for NC studies, \$1.23. The commercial ratio of \$1 of revenue to \$0.29 is one cent lower than the national median of 30 cents and nine cents lower than the NC median of 38 cents. Finally, the farmland (agricultural/forestry) ratio of \$1 to \$0.35 is two cents lower than the national median of \$1 to \$0.37 and is almost a quarter-dollar less than the North Carolina median which is 59 cents (See Figure 1).



**Figure 1: Chatham Cost of Community Services Study Ratios Compared to NC and National Studies (American Farmland Trust)**

The purpose of a COCS Study is to determine the net fiscal contribution of farm properties so these lands may be duly considered in the planning process, not to recommend one type of land use over another. Because the studies are descriptive,



they should not be used to predict the impact of a single development or to project future costs of services created by new development.

The results of this study, however, provide reliable financial information that demonstrates the importance of agricultural and forest lands to the fiscal stability of Chatham County.

- In Chatham County residential development undoubtedly contributes the largest amount of revenue, over \$96 million, however its net fiscal impact was negative as reflected in the 2021-2022 fiscal year data. Residential land uses created a deficit of \$17,751,200.06, while the other two land use categories generated substantial surpluses: \$27,456,459.24 from commercial and \$2,228,43.82 from agricultural lands.
- During the 2021-2022 fiscal year, Chatham County reported a budget surplus of nearly \$12 million. This surplus was a result of the revenue generated by commercial/industrial and agricultural/forestry land uses.
- Residential, commercial and agricultural lands generated revenue from property and sales taxes and other fees with the largest surplus coming from commercial land uses. Chatham County retains more county funds from commercial land use than any other land use in the study.
- Both commercial and agricultural lands pay more in local tax and other revenues than they receive in services, even with a reduced assessed value (Present-Use Value) for agricultural lands.

As American Farmland Trust has emphasized previously, this research also suggests that the development of strategies to retain this land base for the future of agricultural production would be a good long-term investment. Research conducted by the American Farmland Trust expects that without any intervention Chatham County will

lose 14,700 acres of farmland by 2040 in what it calls ‘business as usual’. In another option called ‘runaway sprawl’ Chatham County could lose nearly 20,000 acres of farmland. The option that American Farmland Trust encourages rural and agriculturally-based communities to focus on is ‘better built cities’ by making agriculture a priority when making land use decisions, focusing on smart growth, in an effort to maintain farmland for future generations<sup>19</sup>. In addition to smart development, additional prospective solutions are included below:

- Differential property tax programs, such as present-use value, are justified as a way to provide an incentive to keep land open and in active agricultural use.
- A balance of land uses, including agricultural lands, is needed to provide adequate revenue to pay for county services.

The findings of this study show the fiscal benefits that result from agricultural lands and factual information to help residents understand the delicate fiscal balance between taxes, other community revenues and the cost of public services. In addition, this information should be useful for county leaders and residents when faced with land use decisions now and in the future.

Agriculture in Chatham County is a significant contributor to the economy. Nearly a quarter (24.27%) of the county’s land is farmland. The county’s 105,995 acres of farmland generate more than \$134 million in total cash receipts from the sale of agricultural products<sup>20</sup>. This study makes a significant statement: It is financially wise to keep land in agriculture. In addition to helping maintain fiscal balance, farmland helps sustain Chatham County’s economy, contribute to economic diversity and rural character, and help shape the overall quality of life in the region.

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<sup>19</sup> American Farmland Trust. Farms Under Threat 2040: Choosing an abundant future. [https://farmlandinfo.org/wp-content/uploads/sites/2/2022/08/AFT\\_FUT\\_Abundant-Future-7\\_29\\_22-WEB.pdf](https://farmlandinfo.org/wp-content/uploads/sites/2/2022/08/AFT_FUT_Abundant-Future-7_29_22-WEB.pdf)

<sup>20</sup> 2023 NC Agricultural Statistics. NC Department of Agriculture & Consumer Services, Agricultural Statistics. [https://www.nass.usda.gov/Statistics\\_by\\_State/North\\_Carolina/Publications/Annual\\_Statistical\\_Bulletin/AgStat/NCaStatBook.pdf](https://www.nass.usda.gov/Statistics_by_State/North_Carolina/Publications/Annual_Statistical_Bulletin/AgStat/NCaStatBook.pdf)

Chatham County's desire to engage in a Cost of Community Services Study exemplifies the interest of local leaders in the future and health of the county and provides a unique opportunity for these and future leaders. The fact that Chatham County data exhibits a net gain for both commercial/industrial and agricultural/forestry land uses is similar to other studies, but does present an opportunity for planning for the future of agriculture and anticipated residential and commercial development in the future. Many studies indicate that as residential development has occurred and subsequent services are provided that residential development becomes an increased net loss to the local government with regard to revenue/expenditure evaluations. These same studies indicate that the net gain represented by commercial and agricultural uses in all cases is enough to offset the net loss of residential development thereby fortifying the need to have a balanced land use plan. Most local leaders plan for multiple community needs including: transportation, housing, economic development and environmental protection. Data, however, exhibits most people want farms to remain in their future, but very few communities plan for farmers or farmland. Chatham County is in a position, as it moves forward, to develop strategies to continue to protect farmland and promote smart growth and in so doing ensuring the fiscal strength and stability of the county.

# Profile of Chatham County

Chatham County is located in central North Carolina and is on the boundary of the state's piedmont and coastal plain. Chatham County is adjacent to Wake County which is home to the state capital of Raleigh<sup>21</sup>. The county is made up of a total of 707 square miles<sup>22</sup>. The county is bordered by 8 counties: Moore and Lee to the south, Harnett to the southeast, Wake to the east, Durham, Orange, and Alamance to the North and Randolph to the west. Pittsboro is the county seat for Chatham and is centrally located within the county. According to the NC Rural Center, Chatham County is considered to be rural but is bordered by many suburban and urban counties so that classification could be under threat with continued residential and commercial growth.<sup>23</sup>

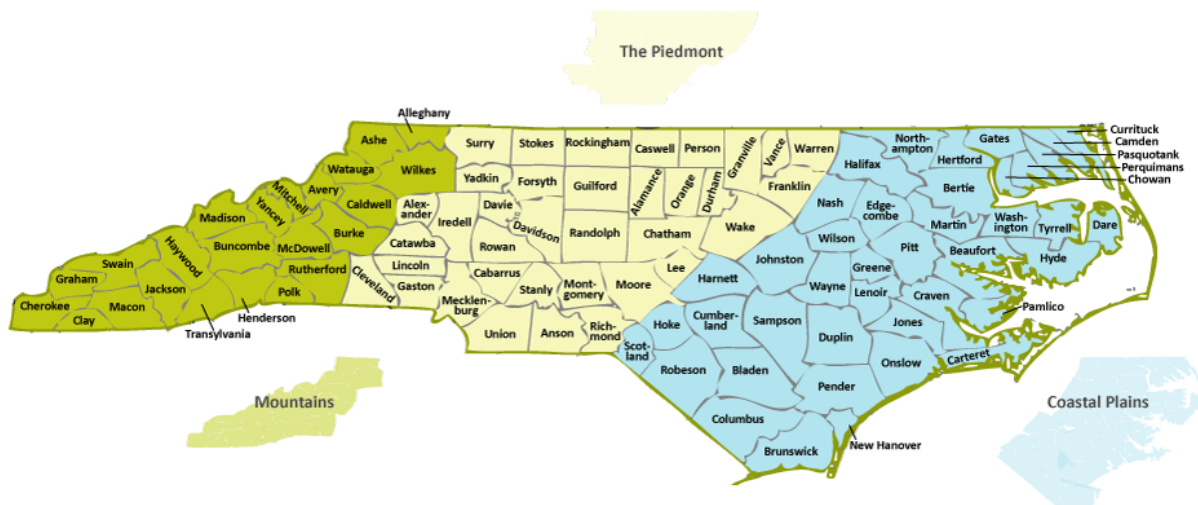


Figure 2: North Carolina regions by county  
Source: <https://www.ncpedia.org/geography/regions>

## Agriculture

The county's website mentions agriculture as a major component of the county economy. The Chamber of Commerce also touts the picturesque views of farms across the county that add to the natural beauty and quality of life of Chatham County. Not only are small, niche farms, nurseries, and other agricultural operation integral to the

<sup>21</sup> History of Chatham County. Chatham County NC. <https://www.chathamcountync.gov/our-community/learn-more-about-chatham-county>

<sup>22</sup> Chatham County, NC. Our Community. <https://www.chathamcountync.gov/our-community#:~:text=Founded%20in%201771%20and%20located,Triangle%20Region%20and%20the%20Piedmont>

<sup>23</sup> NC Rural Center. County Data. <https://www.ncruralcenter.org/advocacy-and-research/county-data/>

county's success, but the county is also home to many beef cattle and poultry farms as well<sup>24</sup>.

The 2017 US Census of Agriculture reported that of Chatham County's 436,696 acres of land, 105,995 acres make up the county's 1,116 farms. This equates to about 24% of the county's land area. The average farm size in Chatham County is 95 acres and the average age of a Chatham County farmer is 58.4 years. Females make up 39 percent of Chatham county farmers. As reported in the 2017 Census of Agriculture, two Chatham County farmers utilized organic farming practices, and ten farmers reported selling directly to consumers<sup>25</sup>. In 2020, NC Extension Forestry reported 270,396 acres in Chatham County were forested acres with 97% reported as privately owned timberland<sup>26</sup>. Farm and forested acres represent a significant land use in Chatham County even with the increased residential and commercial development.

According to the 2023 Agricultural Statistics Book published by the NC Department of Agriculture and Consumer Services and the United States Department of Agriculture National Agricultural Statistics Service, Chatham County ranks in the top three counties in North Carolina for all cattle (3<sup>rd</sup>) and beef cows (2<sup>nd</sup>) in 2021. Chatham County is also in the top 20 in other livestock including broilers produced (18<sup>th</sup>), milk cows (17<sup>th</sup>), and layers (16<sup>th</sup>). Corn for grain and soybeans are the most notable crop production for Chatham County. Chatham County farmers earned a total of \$134,730,412 in cash receipts from the sale of agricultural products<sup>27</sup>.

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<sup>24</sup> Chatham County, NC. Our Community. <https://www.chathamcountync.gov/our-community#:~:text=Founded%20in%201771%20and%20located,Triangle%20Region%20and%20the%20Piedmont>  
<https://www.chathamcountync.gov/our-community#:~:text=Founded%20in%201771%20and%20located,Triangle%20Region%20and%20the%20Piedmont>

<sup>25</sup> NCDA Ag Statistics Book. (2023)

[https://www.nass.usda.gov/Statistics\\_by\\_State/North\\_Carolina/Publications/Annual\\_Statistical\\_Bulletin/AgStat/NCAgStatBook.pdf](https://www.nass.usda.gov/Statistics_by_State/North_Carolina/Publications/Annual_Statistical_Bulletin/AgStat/NCAgStatBook.pdf)

<sup>26</sup> NC State Extension Forestry. 2020 Forestry Contributions Chatham County, NC. <https://content.ces.ncsu.edu/chatham-county-forestry-impacts-2020>

<sup>27</sup> NCDA Ag Statistics Book. (2023)

[https://www.nass.usda.gov/Statistics\\_by\\_State/North\\_Carolina/Publications/Annual\\_Statistical\\_Bulletin/AgStat/NCAgStatBook.pdf](https://www.nass.usda.gov/Statistics_by_State/North_Carolina/Publications/Annual_Statistical_Bulletin/AgStat/NCAgStatBook.pdf)

## Education

From 2018 to 2022, a majority (89.4%) of the population over 25 years of age in Chatham County completed high school, which is identical to the state graduation rate for that same time period. Similarly, 46.5 percent of Chatham County citizens have a Bachelor's degree or higher, compared to 33.9 percent statewide<sup>28</sup>.

Chatham County Schools serve more than 8,900 students in 20 schools. There are five high schools, three middle schools, and eleven schools that serve kindergarten through 4<sup>th</sup>, 5<sup>th</sup>, or 8<sup>th</sup> grades, and one alternative school<sup>29</sup>.

The county also has post-secondary educational institutions including with sites in Chatham County. Central Carolina Community College maintains five key operations in Chatham County including the Chatham main campus, Chatham Health Sciences Center, Chatham Early College, Siler City Center, and the Small Business Center – Chatham<sup>30</sup>. Additional colleges and universities are within reasonable driving distance from Chatham County including the University of North Carolina at Chapel Hill, North Carolina Agricultural & Technical State University, Duke University, Elon University, NC State University, and UNC-Greensboro<sup>31</sup>.

## Economy

The North Carolina Department of Commerce (NCDC) ranks each of the state's 100 counties into three tiers based on the economic well-being of each county. Tier 1 is most distressed, and Tier 3 is least distressed. Chatham County is designated as a Tier 3 county in 2021. North Carolina uses these designations to encourage economic growth through incentives in distressed counties.<sup>32</sup>

The median household income in Chatham County in 2018-2022 as reported by Census was \$84,222.00 compared to the state figure of \$66,186.00. Nine percent of Chatham

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<sup>28</sup> US Census Bureau. <https://www.census.gov/quickfacts/fact/table/chathamcountynorthcarolina/POP010220#POP010220>

<sup>29</sup> Chatham County Schools District Facts. <https://www.chatham.k12.nc.us/Page/20875>

<sup>30</sup> Central Carolina Community College. Chatham County Locations. <https://cccc.edu/locations/chatham/locations/>

<sup>31</sup> Chatham County NC. Our Community. <https://www.chathamcountync.gov/our-community#:~:text=Founded%20in%201771%20and%20located,Triangle%20Region%20and%20the%20Piedmont>

<sup>32</sup> County Tier Designations. NC Department of Commerce. <https://www.commerce.nc.gov/grants-incentives/county-distress-rankings-tiers#TierRankingbyCounty-495>

County's population is considered below the poverty level, which is lower than the reported state rate of 13 percent for this same time period<sup>33</sup>.

Agriculture and agribusiness provided jobs for 19.7 percent of Chatham County's working residents according to a study completed by Dr. Mike Walden in 2008<sup>34</sup>. While that info is dated, it shows that agriculture has long been a major employer in Chatham County. Dr. Walden's information is now available for the state rather than by county. Agriculture now contributes more than \$103.2 billion to the gross state product and represents 16 percent of the state's total workforce<sup>35</sup>.

Commercial and industrial businesses have made a significant impact upon the Chatham County economy. While several major announcements have been made regarding new companies building or growing their presence in Chatham County, these projects are moving forward. These include technology and manufacturing companies VinFast, Wolfspeed, and Conveyor Tech. Other existing commercial and industrial businesses can be categorized into the following based on the top 25 employers in Chatham County in 2020<sup>36</sup>:

- Agriculture, Forestry, Fishing, and Hunting
- Health Care and Social Assistance
- Retail Trade
- Manufacturing
- Accommodation and Food Services
- Administrative and Support and Waste Management and Remediation Services
- Arts, Recreation, and Entertainment
- Construction

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<sup>33</sup> US Census Bureau. Quick Facts.

<https://www.census.gov/quickfacts/fact/table/chathamcountynorthcarolina/POP010220#POP010220>

<sup>34</sup> Walden, Michael. (2008). Agriculture and Agribusiness in Chatham County.

<sup>35</sup> Walden, Michael. (2023) Agriculture and Agribusiness: North Carolina's number one industry.

<sup>36</sup> Chatham County Economic Development Corporation. <https://www.chathamcdc.org/>

## Population

Chatham County's population is made up of a somewhat diverse distribution of residents. Of the county's population of 76,270 persons, the majority are white at 82.3%, 11.7% are African-American, 2.6% are Asian and the remaining 3.4 percent are American Indian, Native Hawaiian or Pacific Islander, or identify as two or more races. 12.1 percent of the total population identify as Hispanic or Latino<sup>37</sup>.

Table 2 illustrates the reported age distribution by the NC Department of Commerce in Chatham County.

Chatham County Population Estimated Population By Age 2019		
2019 Est Median Age 47		
2019 Est Total Pop 0-19	15,766	22.2%
2019 Est Total Pop 20-24	3,365	4.7%
2019 Est Total Pop 25-34	6,130	8.6%
2019 Est Total Pop 35-44	8,365	11.7%
2019 Est Total Pop 45-54	10,007	14.0%
2019 Est Total Pop 55-64	10,576	14.8%
2019 Est Total Pop 65+	17,129	24.0%

Table 2. NC Department of Commerce, NCACCESS, 2019.

The Department of Commerce additionally reported the urban to rural representation in Chatham County to be 34.1% to 65.9% respectively<sup>38</sup>.

## Taxation

The tax rate for Chatham County during the period studied was 66.5 cents per \$100 of property value. This is the greatest income generator for Chatham County according the revenue data.

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<sup>37</sup> Chatham, NC. US Census Bureau.  
<https://www.census.gov/quickfacts/fact/table/chathamcountynorthcarolina/POP010220#POP010220>

<sup>38</sup> NC Department of Commerce County Profile.  
<https://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37037.pdf>



While property taxes are an important revenue stream for the County, the continuation of deferred tax programs for agricultural lands is important as well. As noted, agricultural and forested lands contributed \$3,330,563.50 in property taxes to Chatham County in 2021-22. This contribution was significant and was instrumental in concert with the taxes collected from commercial/industrial properties in offsetting the deficit between revenues and expenditures collected and spent respectively to provide services to residential property owners in Chatham County.

In North Carolina, certain agricultural, horticultural and forested acres are taxed under a deferred tax program enacted by the NC General Assembly in 1974 designated as the Present Use Value Taxation Program. The importance of this program to the viability of agricultural and forested working lands and to the economic well-being of the county is apparent as a result of the COCS Study for Chatham County.

The greatest asset a farmer or forest landowner has is their land. This deferred taxation program allows landowners that are:

- *actively engaged in the commercial production or growing of crops, plants, or animals;*
- *actively engaged in the commercial production or growing of fruits, vegetables, nursery products, or floral products;*
- *actively engaged in the commercial growing of trees;*

to be considered for present-use value classification. In addition to these parameters, there are criteria related directly to ownership, property size, income, and management practices that ultimately determine whether property may be taxed based upon its present-use value or its market value. Generally stated, present-use value (PUV) is the value of land in its current use as agricultural land, horticultural land, or forestland, based solely on its ability to produce income and assuming an average level of management. This program allows landowners to continue to contribute to the local economy through taxation, but does not stifle the ability of the agricultural operation to

remain profitable and continue to contribute to the County's economy through sales of market products and the need for and presence of allied industries to support these sales.

Properties that qualify for present-use value classification are assessed at their present-use value rather than its market value. Present-use value is usually less than market value and qualifying tracts are assessed at this lower value. The tax office establishes a market value for the land, and the difference between the market value and the present-use value is maintained in the tax assessment records as deferred taxes. When land becomes disqualified from the present-use value program, the deferred taxes for the current year and the three previous years with accrued interest will usually become due and payable<sup>39</sup>.

Tax relief is an important issue for farmers. Farmers need land to operate and property taxes on farmland can be a significant expense. Taxes on farm buildings and other assets are often substantial as well. Legislation exists that supports the concept that taxes on agricultural land should be proportionate to its demand on community services and its ability to generate income. As demonstrated in Cost of Community Services (COCS) Studies across the state and nation, farmland provides more in property tax revenues than it requires in public services and by keeping farmland productive it serves to control the cost of community services.

Since overtaxed agricultural land may be more susceptible to conversion to non-agricultural uses, tax relief measures can also be considered a farmland protection tool. The expense of property taxes may discourage farmers from buying land and can force existing farmers to sell.

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<sup>39</sup> Simpson, Tony, Present-Use Value Program Guide, NC Department of Revenue, April 2023. <https://www.ncdor.gov/2023-04-04-present-use-value-program-guidepdf/open>

Farmers' savings from deferred property tax programs can be significant and may make the difference between staying in business and selling out. The retention and support of agriculture in Chatham County is, as previously stated, essential to the economic stability and quality of life appreciated by Chatham County residents.

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# Appendix: Supporting Tables

**Table 1 Chatham County Total Revenue for 2021-2022**

<b>Source</b>	<b>Revenue</b>	<b>Percentage</b>
Ad Valorem Taxes	\$92,588,704.00	66.93%
Local Option Sales Tax	\$25,697,393.00	18.58%
Other Taxes	\$1,952,454.00	1.41%
Intergovernmental	\$14,591,204.00	10.55%
Permits and fees	\$2,843,212.00	2.05%
Sales and services	\$3,289,878.00	2.38%
Investment Earnings	-\$4,694,876.00	-3.39%
Other General Revenues	\$2,073,546.00	1.49%
<b>Total</b>	<b><u>\$138,341,515.00</u></b>	<b><u>100.00%</u></b>

Source: **Audited Financial Statements**, Chatham County, NC, ACFR, Fiscal Year Ending, June 30, 2022

**Table 2 Chatham County Actual Expenditures for 2021-2022**

<b>Item</b>	<b>Expenditure</b>	<b>Percentage</b>
General Government	\$13,297,226.00	10.52%
Public safety	\$22,532,811.00	17.82%
Economic and physical development	\$4,204,734.00	3.33%
Human services	\$18,226,025.00	14.42%
Cultural and recreational	\$2,761,470.00	2.18%
Education	\$41,677,527.00	32.97%
Debt Service	\$23,708,059.00	18.76%
<b>Total</b>	<b><u>\$ 126,407,852.00</u></b>	<b><u>100.00%</u></b>

Source: **Basic Financial Statements (ACFR)**, Chatham County, NC, Fiscal Year Ending, June 30, 2022



**Table 3 Revenue-to-Expenditures in Chatham County 2021-2022**

<b>Revenue-to-Expenditure Ratios in Dollars</b>			
	<b>Residential</b>	<b>Commercial</b>	<b>Agricultural</b>
<b>Expenditures</b>	\$114,135,983.96 (90.29%)	\$11,080,655.92 (8.77%)	\$1,191,212.11 (0.94%)
<b>Revenue</b>	\$96,384,783.90 (69.67%)	\$38,537,115.17 (27.86%)	\$3,419,615.93 (2.47%)
<b>Revenue-to-Expenditure Ratio<sup>a</sup></b>	<b>1:1.18</b>	<b>1:0.29</b>	<b>1:0.35</b>

<sup>a</sup> This ratio measures the cost of services used by a given land sector for each dollar of county revenue contributed to that sector. The formula used is (Revenue/Revenue):(Expenditure/Revenue).

## Tables 4A & B Comparison of Revenue-to-Expenditures in Other Counties

### Revenue-to-Expenditure Ratios from National Studies from AFT<sup>a</sup>

	Residential	Commercial	Agricultural
Minimum	1:1.01	1:0.04	1:0.02
Median*	1:1.16	1:0.30	1:0.37
Maximum	1:2.27	1:1.04	1:2.04

\*Median cost per dollar of revenue raised to provide public services to different land uses.

### Revenue-to-Expenditure Ratios from Local NC Studies<sup>b</sup>

	Residential	Commercial	Agricultural
Union County (2006) <sup>c</sup>	1:1.30	1:0.41	1:0.24
Orange County (2006)	1:1.32	1:0.24	1:0.72
Alamance County (2006)	1:1.47	1:0.23	1:0.59
Henderson County (2008)	1:1.16	1:0.40	1:0.49
Gaston County (2008)	1:1.23	1:0.41	1:0.88
Franklin County (2009)	1:1.12	1:0.53	1:0.76
Durham County (2010)	1:1.15	1:0.33	1:0.59
Guilford County (2010)	1:1.35	1:0.29	1:0.62
Wayne County (2011) <sup>d</sup>	1:1.24	1:0.34	1:0.47
Yadkin County (2011)	1:1.18	1:0.38	1:0.61
Catawba County (2013)	1:1.23	1:0.54	1:0.75
Pitt County (2013)	1:1.29	1:0.36	1:0.62
Davie County (2014)	1:1.14	1:0.50	1:0.67
Iredell County (2015)	1:1.35	1:0.30	1:0.47
Craven County (2015) <sup>d</sup>	1:1.10	1:0.33	1:0.20
Pamlico County (2015) <sup>e</sup>	1:0.99	1:0.71	1:0.51
Duplin County (2016) <sup>f</sup>	1:1.14	1:0.30	1:0.41
Lee County (2017) <sup>f</sup>	1:1.32	1:0.47	1:0.31
Wilson County (2017) <sup>f</sup>	1:1.08	1:0.36	1:0.66

<sup>a</sup> These figures are derived from Cost of Community Services summarized on the American Farmland Trust website ([https://farmlandinfo.org/wp-content/uploads/sites/2/2019/09/Cost\\_of\\_Community\\_Services\\_Studies\\_AFT\\_FIC\\_201609.pdf](https://farmlandinfo.org/wp-content/uploads/sites/2/2019/09/Cost_of_Community_Services_Studies_AFT_FIC_201609.pdf)).

<sup>b</sup> Source: Renkow, Mitch. "Land Preservation Notebook." (<http://www.cals.ncsu.edu/wq/lpn/cost.html>)

<sup>c</sup> Source: Dorfman, Jeffrey H. "The Fiscal Impacts of Land Uses on Local Government" Land Use Studies Initiative and Department of Agricultural & Applied Economics The University of Georgia, April 2006

<sup>d</sup> Source: Best, Kathy. University of Mount Olive Cost of Community Services Study, Wayne (2011); Craven (2015)

<sup>e</sup> Source: Olive, Edward F. University of Mount Olive Cost of Community Services Study, Pamlico (2015)

<sup>f</sup> Source: Maddox, Sandy and Edward F. Olive. University of Mount Olive Cost of Community Services Study, Duplin (2016); Lee (2017); and Wilson (2017)

**Table 5. Breakeven Analysis for Residential Property Value  
County, NC 2021-2022**

**Chatham**

(1)	Property tax rate (cents per \$100 of property value)		66.5
(2)	Residential Non-Property Tax Revenue Contribution in FYE June 30, 2022	\$	17,708,741.29
(3)	Total residential expenditures in FYE June 30, 2022	\$	114,135,983.96
(4)	Total Expenditures needing to be paid for by property taxes [(3) – (2)]	\$	96,427,242.67
(5)	Number of residential properties in the county		36,016
(6)	Per household expenditures needing to be paid for by property taxes [(4) ÷ (5)]		\$2,677.34

**Breakeven property value [(6) ÷ (1)]** **\$ 1,450,033.72**

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**Table 6 Chatham County Actual Revenues by Land Use Category for 2021-2022**

Line Item	Total	Residential	Commercial/ Industrial	Agriculture/ Forestry	% Breakdown
Ad Valorem Taxes	<b>\$92,588,704.00</b>				
Current Year Taxes:					
Real/Personal	\$85,063,468.00	\$71,929,668.54	\$9,833,336.90	\$3,300,462.56	84.56-11.56- 3.88
DMV - Motor Vehicle	\$7,002,425.00	\$6,277,674.01	\$696,741.29	\$28,009.70	Default*
<b>Total Current Year Taxes</b>	<b>\$92,065,893.00</b>				
Prior Year Taxes	\$486,141.00	\$435,825.41	\$48,371.03	\$1,944.56	Default*
Penalties, Interest, Other	\$36,670.00	\$32,874.66	\$3,648.67	\$146.68	Default*
Local Option Sales Tax	<b>\$25,697,393.00</b>				
Article 39 - 1 percent	\$8,790,018.00	\$0.00	\$8,790,018.00	\$0.00	0-100-0
Article 40 - 1/2 percent	\$6,864,570.00	\$0.00	\$6,864,570.00	\$0.00	0-100-0
Article 42 - 1/2 percent	\$5,432,343.00	\$0.00	\$5,432,343.00	\$0.00	0-100-0
Article 44 - 1/2 percent	\$1,606,125.00	\$0.00	\$1,606,125.00	\$0.00	0-100-0
Article 46 - 1/2 percent	\$3,004,337.00	\$0.00	\$3,004,337.00	\$0.00	0-100-0
Other Taxes	<b>\$1,952,454.00</b>				
Deed Stamp Excise Tax	\$1,741,407.00	\$1,561,171.38	\$173,270.00	\$6,965.63	Default*
Occupancy Tax	\$185,639.00	\$0.00	\$167,075.10	\$18,563.90	0-90-10
Other	\$25,408.00	\$22,778.27	\$2,528.10	\$101.63	Default*

Line Item	Total	Residential	Commercial/ Industrial	Agriculture/ Forestry	% Breakdown
Intergovernmental	<b>\$14,591,204.00</b>				
Unrestricted intergovernmental	<b>\$5,136,221.00</b>				
Payments in lieu of taxes	\$114,163.00	\$102,347.13	\$11,359.22	\$456.65	Default*
Beer and wine excise tax	\$239,513.00	\$214,723.40	\$23,831.54	\$958.05	Default*
ABC profit distribution	\$256,107.00	\$229,599.93	\$25,482.65	\$1,024.43	Default*
Medicaid hold harmless	\$4,518,138.00	\$4,050,510.72	\$449,554.73	\$18,072.55	Default*
Other	\$8,300.00	\$7,440.95	\$825.85	\$33.20	Default*
Restricted Intergovernmental	<b>\$9,454,983.00</b>				
State and federal grants	\$8,806,367.00	\$7,894,908.02	\$876,233.52	\$35,225.47	Default*
Other	\$648,616.00	\$581,484.24	\$64,537.29	\$2,594.46	Default*
Permit and Fees	<b>\$2,843,212.00</b>				
Inspection Fees	\$2,247,647.00	\$1,910,499.95	\$337,147.05	\$0.00	85-15-0
Register of Deeds fees	\$541,455.00	\$485,414.41	\$53,874.77	\$2,165.82	Default*
Other	\$54,110.00	\$48,509.62	\$5,383.95	\$216.44	Default*
Sales and services	<b>\$3,289,878.00</b>				
Charges to other funds	\$451,066.00	\$404,380.67	\$44,881.07	\$1,804.26	Default*
Enviromental services	\$592,595.00	\$531,261.42	\$58,963.20	\$2,370.38	Default*
Fire inspections	\$62,262.00	\$55,817.88	\$6,195.07	\$249.05	Default*
Health	\$1,517,365.00	\$1,360,317.72	\$150,977.82	\$6,069.46	Default*
Library	\$8,427.00	\$7,554.81	\$838.49	\$33.71	Default*
Planning	\$207,003.00	\$185,578.19	\$20,596.80	\$828.01	Default*
Recreation fees	\$104,289.00	\$93,495.09	\$10,376.76	\$417.16	Default*
Sheriff	\$113,008.00	\$101,311.67	\$11,244.30	\$452.03	Default*
Tax	\$198,729.00	\$178,160.55	\$19,773.54	\$794.92	Default*
Other	\$35,134.00	\$31,497.63	\$3,495.83	\$140.54	Default*

<b>Line Item</b>	<b>Total</b>	<b>Residential</b>	<b>Commercial/ Industrial</b>	<b>Agriculture/ Forestry</b>	<b>% Breakdown</b>
Investment Earnings	<b>-\$4,694,876.00</b>				
Interest on investments	\$241,437.00	\$216,448.27	\$24,022.98	\$965.75	Default*
Market value investment adjustment	-\$4,936,313.00	-\$4,425,404.60	-\$491,163.14	-\$19,745.25	Default*
Other General Revenues	<b>\$2,073,546.00</b>				
Rent	\$196,051.00	\$175,759.72	\$19,507.07	\$784.20	Default*
Contributions and donations	\$1,465,514.00	\$1,313,833.30	\$145,818.64	\$5,862.06	Default*
Sale of Surplus Property	\$101,294.00	\$90,810.07	\$10,078.75	\$405.18	Default*
Miscellaneous	\$310,687.00	\$278,530.90	\$30,913.36	\$1,242.75	Default*
<b>Total Revenues</b>	<b>\$138,341,515.00</b>	<b>\$96,384,783.90</b>	<b>\$38,537,115.17</b>	<b>\$3,419,615.93</b>	

\*Default percentage: Residential (including historic) 89.65%; Commercial/Industrial 9.95%; Agriculture/Forestry 0.4%.

**Table 7 Chatham County Actual Expenditures by Land Use Category for 2021-2022**

Line Item	Total	Residential	Commercial/ Industrial	Agriculture/ Forestry	% Breakdown
<b>GENERAL GOVERNMENT</b>	<b>\$13,297,226.00</b>				
Governing Board	\$405,663.00	\$363,676.88	\$40,363.47	\$1,622.65	Default
County Manager	\$1,586,348.00	\$1,422,160.98	\$157,841.63	\$6,345.39	Default
Finance	\$1,190,745.00	\$1,067,502.89	\$118,479.13	\$4,762.98	Default
Tax	\$1,616,375.00	\$1,449,080.19	\$160,829.31	\$6,465.50	Default
County Attorney	\$268,946.00	\$241,110.09	\$26,760.13	\$1,075.78	Default
Information Services	\$2,150,375.00	\$1,927,811.19	\$213,962.31	\$8,601.50	Default
Elections	\$552,988.00	\$552,988.00	\$0.00	\$0.00	100-0-0
General Services	\$884,974.00	\$793,379.19	\$88,054.91	\$3,539.90	Default
Register of Deeds	\$635,817.00	\$570,009.94	\$63,263.79	\$2,543.27	Default
Facilities Management	\$3,580,281.00	\$3,209,721.92	\$356,237.96	\$14,321.12	Default
Agriculture and Conference Center	\$343,377.00	\$0.00	\$329,641.92	\$13,735.08	0-96-4
Court Facilities	\$81,337.00	\$72,918.62	\$8,093.03	\$325.35	Default
<b>Public Safety</b>	<b>\$22,532,811.00</b>				
Sheriff	\$13,765,427.00	\$11,562,958.68	\$2,064,814.05	\$137,654.27	84-15-1
<b>Law Enforcement Special Separation</b>	\$175,000.00	\$175,000.00	\$0.00	\$0.00	100-0-0
Emergency Management	\$4,003,599.00	\$800,719.80	\$2,802,519.30	\$400,359.90	20-70-10
Emergency Communications	\$2,136,782.00	\$1,915,625.06	\$212,609.81	\$8,547.13	Default
Building Inspections	\$1,069,427.00	\$909,012.95	\$160,414.05	\$0.00	85-15-0
Fire Inspections	\$362,625.00	\$308,231.25	\$54,393.75	\$0.00	85-15-0
Court-Related Programs	\$1,019,951.00	\$914,386.07	\$101,485.12	\$4,079.80	Default
Line Item	Total	Residential	Commercial/ Industrial	Agriculture/ Forestry	% Breakdown

Economic and Physical Development	<b>\$4,204,734.00</b>				
Planning	\$989,672.00	\$910,498.24	\$59,380.32	\$19,793.44	92-6-2
Central Permitting	\$576,696.00	\$490,191.60	\$86,504.40	\$0.00	85-15-0
Sedimentation and Erosion Control	\$494,160.00	\$420,036.00	\$74,124.00	\$0.00	85-15-0
Cooperative Extension	\$412,395.00	\$235,065.15	\$24,743.70	\$152,586.15	57-6-37
Soil and Water Conservation	\$231,841.00	\$78,825.94	\$0.00	\$153,015.06	34-0-66
Economic Development	\$1,381,777.00	\$0.00	\$1,381,777.00	\$0.00	0-100-0
Pittsboro/Siler City Convention & Visitors Bureau	\$118,193.00	\$0.00	\$106,373.70	\$11,819.30	0-90-10
Human Services	<b>\$18,226,025.00</b>				
Health	\$5,807,452.00	\$5,633,228.44	\$29,037.26	\$145,186.30	97-.5-2.5
Social Services	\$7,676,275.00	\$7,676,275.00	\$0.00	\$0.00	100-0-0
Public Assistance	\$2,113,599.00	\$2,113,599.00	\$0.00	\$0.00	100-0-0
Mental Health	\$602,300.00	\$602,300.00	\$0.00	\$0.00	100-0-0
Concil on Aging	\$1,408,831.00	\$1,408,831.00	\$0.00	\$0.00	100-0-0
Appropriations to Non-Profit Agencies	\$617,568.00	\$617,568.00	\$0.00	\$0.00	100-0-0
Cultural and Recreational	<b>\$2,761,470.00</b>				
Library	\$1,507,459.00	\$1,507,459.00	\$0.00	\$0.00	100-0-0
Recreation	\$1,254,011.00	\$1,254,011.00	\$0.00	\$0.00	100-0-0
Education	<b>\$41,677,527.00</b>				
Public Schools	\$40,425,670.00	\$40,425,670.00	\$0.00	\$0.00	100-0-0
Community College	\$1,251,857.00	\$1,251,857.00	\$0.00	\$0.00	100-0-0
Debt Service	<b>\$23,708,059.00</b>				
Principal	\$14,629,294.00	\$13,115,162.07	\$1,455,614.75	\$58,517.18	Default*
Interest and Fees	\$9,078,765.00	\$8,139,112.82	\$903,337.12	\$36,315.06	Default*
<b>Total Expenditures</b>	<b>\$126,407,852.00</b>	<b>\$114,135,983.96</b>	<b>\$11,080,655.92</b>	<b>\$1,191,212.11</b>	

\*Default percentage: Residential (including historic) 89.65%; Commercial/Industrial 9.95%; Agriculture/Forestry 0.4%.